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ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF

NECROSIS OF THE LOWER JAW, FROM EXPOSURE TO THE FUMES OF PHOSPHORUS, IN WHICH THE ENTIRE BONE WAS REMOVED.

SECONDARY HÆMORRHAGE—LIGATURE OF THE RIGHT COMMON CAROTID ARTERY.

By JOHN ADAMS,

Surgeon to the London Hospital.

JOHN O., aged 24, has been employed in a lucifer manufactory between ten and eleven years, and always enjoyed good health until three years ago, when his lower jaw became inflamed. He was engaged as a mixer and a dipper for four and five days in the week, amongst three hundred children and five adults. Having heard of the ill effects resulting occasionally from his employment, he had always paid the greatest attention to cleanliness, as a safeguard against the inroads of this serious disease. He was in the habit of frequently washing his mouth with clean water. He lived on the premises.

Two years before the appearance of the disease in his jaw, he had a tooth extracted for caries, but he continued quite well two years after this, when the jaw began to inflame. The disease appeared to commence by a swelling in that part of the jaw whence the tooth had been extracted; the swelling continued to extend until the entire bone became affected. He suffered deep pain in the part; and in consequence of his sufferings he came into the Hospital under the care of Mr. Luke; but his precise condition at that time is not known. He was re-admitted under my care in December, 1861, and was discharged cured last April.

He told me on admission that he had suffered great pain through the entire jaw, and that his nights had been sleepless. He was looking very ill, was much emaciated, and he presented a curious appearance of the mouth, which was pursed up into a round aperture in consequence of the protrusion forward of the enlarged jaw. There were two fistulous openings, one on each side of the upper part of the neck; and a probe introduced struck the angle of the jaw, which was quite dead. I examined the mouth and found the jaw quite dead, and not unlike a jaw you might pick up in a churchyard; it had evidently been dead some time. I could distinguish every part of the bone except the condyles, which were imbedded in soft tissues. The body of the bone was lodged in a groove of a dense cartilaginous structure, but I could not raise it from its bed in consequence of its fixity at the condyles. There was a large quantity of fetid discharge around it, but the principal part of this came from the vicinity of the condyles. I passed my finger readily along the body and from the angles up the rami of the bone, to satisfy myself that it was quite dead throughout. The outside of the cheeks about the masseteric regions were much thickened. The teeth were all gone, and the appearance of the jaw was that from an edentulated cranium.

There could be no doubt of the death of the entire bone, but two questions suggested themselves: When was the proper time to remove it? and, How could it be removed without incision?

In reference to the first point, I was quite aware that a great deal of new hard material had been thrown out, containing very likely bony matter, and I was unwilling to disturb that salutary action by which new bone is formed around the sequestrum, although I had no expectation that this would ever become completely encased in new bone. However, I thought it better to wait, and in the mean time I gave the patient good stimulating diet with porter and wine, until I thought his health had begun to give way. But I was not idle during this time, for at each visit I cut away small portions of the symphysis, my object being, when the bone was divided at this part, to extract each portion separately.

Finding that I made but slow progress in this way, I had the man brought into the theatre, and severed the bone at the symphysis with a mallet and chisel, as I could not accomplish the division with the strongest forceps I could use.

To effect this it was requisite that the man should kneel on a cushion, and rest his jaw upon a table. I extracted the right half of the jaw first in two pieces, and a portion of the left; but as the upper part of the left side was rather firmly fixed, and as the man wished its removal to be delayed, I removed it under chloroform after the interval of a week.

Ten days after the extraction of the first half of the sequestrum, severe arterial hæmorrhage took place, which led to the necessity of securing the right common carotid artery. Mr. Maunder, in my absence, performed the operation, and no further hæmorrhage occurred. The ligature came away in due time; but the man has since suffered from palpitation of the heart and occasional pains in the left side of the head, both of which symptoms are gradually diminishing in intensity, and will, I doubt not, eventually disappear. I think they are fairly attributable to the disturbance of the circulation, and may, possibly, admit of explanation,—the first from the obstruction caused by the ligature through one of the large arteries so near the heart as the common carotid, and the other to an increase in the activity in the circulation on the left side of the brain. I cannot say there is any external indication of this, but I think the explanation is feasible; or, if you adopt another hypothesis, both symptoms may depend on nervous causes,—I mean upon a derangement in the function of that curious nerve, the sympathetic, which possesses so remarkable an influence on the heart and arterial system.

During the whole progress of the case the patient has been well supported by nutritious diet, wine, etc. The case is interesting, but by no means unique. I have witnessed a few cases of this character, but I never saw one in which the entire jaw was so completely necrosed. In this neighbourhood there are many lucifer manufactories, and you will in the course of your attendance here meet with the disease in a more or less advanced stage; but in the greater number of cases you will find the jaw swollen, and fistulous orifices here and there leading down to bone in a more or less advanced stage of destruction, and if you watch the progress of these cases you will find portions of dead bone detached and requiring removal.

I submit the following questions for our consideration:—What is the disease? How does it first take place? What is its cause? And how is it to be prevented? In considering these subjects I shall draw largely from an interesting lecture on the "Chemistry of the Poisons" delivered here by Dr. Letheby, and published in the *Medical Times and Gazette*.

As to the nature of the disease, it may be said to be in its origin a specific inflammation of the periosteum of the jaw, and the jaw itself leading to the more or less complete destruction of the bone. That the inflammation is of a specific character, may be inferred from the fact that extensive bony deposits are found occasionally in irregular masses over the surface of the bone; they have a dingy grey colour, are in texture spongy, and have the appearance of pumice-stone. "Von Bibra (*loc. cit*) has made a careful inquiry into the physical structure and chemical composition of this morbid deposit; he finds it lamellated, with large Haversian canals, not running parallel to the general direction of the bone. The bone corpuscles (*lacune*) are rounded off; the proportions of organic and inorganic matter varies,—the average being in eight specimens, organic matter 32·4 per cent., inorganic 6·76."

Now, nothing of this sort is discoverable in the sequestra from death of bone the result of common inflammation. I confess I cannot assign a reason why this disease should attack the lower jaw in preference to the upper; but the fact is so, although in an extensive series of observations the disproportion is by no means so great as is generally believed; thus, out of fifty-five cases collected from various sources by Dr. Letheby, twenty-seven were attacked in the lower jaw, and twenty-two in the upper, whilst five were attacked in both jaws, and one case is not specified.

The next question is, How does the disease take place? I must recall to your mind that, in the case before us, the young man had had a tooth extracted for caries two years before the appearance of the disease, and that, according to his description, the swelling commenced in the spot whence the disease appeared to radiate. I mention this subject because a theory has been advanced, that no disease would attack the bone if the teeth were sound; and that the disease arises from the influence of the poison being propagated down

to the periosteum of the alveoli through the carious tooth. My limited experience will not allow me to combat this idea, but I confess I doubt its correctness, nor do I see that this case proves the theory; for, although the man had a tooth extracted for caries, yet no disease attacked the jaw for two years after, and when the alveolar cavity had probably been smoothed down by the natural absorption of its edges. But you may say that the disease appears to have commenced in this part; now I think it very likely that this was not the case, but that the young man's attention was first directed to this part when the general swelling of his jaw and consequent pain commenced, and that he was mistaken in the impression that this was the spot primarily affected. If this is found to be true, the disease must be regarded as strictly a local one, and its effects may be prevented by the workers in the lucifer manufactories always defending their teeth by a thin layer of wax, or some other material which might be easily contrived; but I do not suppose that you will ever get workmen to adopt such precautionary means.

If, then, we discard this theory, we must come to the conclusion that the disease depends on a poisoning of the blood, the effects of which are both general and local, and the local effects of which are evidenced in the peculiar disease of the jaws, as illustrated by the case under our consideration. In this respect there is some analogy between this disease and the effect of mercury. It has been found in many instances that workers in the manufacture of lucifer matches are liable to severe irritation of the mucous surfaces, as the eyes and bronchial membrane, and great gastric disturbance, as griping pains in the abdomen, followed by repeated attacks of diarrhœa. They gradually lose flesh, look sallow, and begin to complain of toothache; and then commence those indications of disease of the periosteum of the jaw, as a swollen state of the gums, with a dull purple colour, and suppuration at the roots of the teeth, etc., which characterise this peculiar disease. A case is recorded in the *Medical Times and Gazette* for May 3, 1862, which shows the effect upon the blood of the composition employed in making lucifers: it is taken from a foreign journal. A servant girl had poisoned herself by eating the tops of a thousand lucifers; she suffered from icterus and enlarged liver; biliphœin and albumen were found in the urine. The post-mortem examination proved that the blood was in a state of dissolution; it had the colour of cherry-juice, and was very thin; there were no coagula, and scarcely any globules in it. The skin and mucous membranes were suffused with blood, the liver was greatly enlarged, and its acini were filled to bursting.

These facts prove a decided blood-poisoning; but some exception may be taken to the presumed analogy of the case with that we are now considering; nevertheless, I think such cases cannot altogether be discarded, and they favour the theory of blood-poison. I quote, also, in proof of the truth of this theory, some remarks by the late Mr. Stanley in his work on "Diseases of the Bones," on a somewhat analogous condition, resulting from the exposure to arsenical fumes. "Many years ago, Dr. Russell placed in the Museum of St. Bartholomew's Hospital several bones from cows, obtained from Swansea, in the neighbourhood of which there are copper-works, where, in melting the copper, arsenical fumes are disengaged. The animals soon became affected in their bones, which are found enlarged and covered by deposits of an unhealthy osseous substance." In this instance the bones generally become affected, and the disease is not confined to the jawbones; proving the affection to arise from a constitutional taint, rather than from any local influence. It is, however, by no means unlikely that both causes may be in operation at one and the same time.

The experiments of Von Bibra (*loc. cit.*) on rabbits tend to the same conclusion:—"He exposed an animal to phosphoric fumes, having previously broken the jaw on the right side, between the first and second molars, in such a manner that the root of the first molar was exposed; in another he extracted the first and second molars, and fractured the jaw at the corresponding spot. During the first few days both animals showed signs of depression, but they afterwards recovered themselves. After a time a swelling appeared at the injured part, and the animals died eight weeks from the beginning of the experiment. The venous system was found after death much congested, the lungs were hepatised, and studded with tubercular deposits; the soft parts around the fractured jaw were in a suppurating state; the periosteum was inflamed, easily separable from the bone, and underneath it there was a deposit of a new formation, which Von Bibra believes to be identical with the peculiar bony deposit observed in the lucifer disease. These experiments clearly indicate that the fumes of phosphorus are capable of producing constitutional as well as local effects."

Assuming that the disease in question depends on phosphoric fumes, it becomes us now to consider how it is to be avoided. On this subject I may content myself by referring you to the lecture from which I have largely drawn already; in this the following prophylactics are especially advocated: cleanliness in person and dress, good and free ventilation in the manufactories themselves, and the use of turpentine,—a very small quantity of which diffused through the atmosphere will at once put a stop to the luminosity of phosphorus,—and the employment of alkaline lotions and gargles for the mouth.

ORIGINAL COMMUNICATIONS.

RECOLLECTIONS OF THE VARIETIES OF INSANITY.

PART II.

No. V.—*Juvenile Insanity*—(*Concluded.*)

By JOHN CONOLLY, M.D.

Although in a certain number of the cases in which juvenile peculiarities exist a hope may be entertained of their being removed as the child grows older, it is unquestionable that in many instances in which the Practitioner is consulted on account of some form or degree of insanity in young persons of adult years, he will find that the earlier symptoms have been concealed, and that the malady has not been acknowledged until incapability of employment in those of the male sex, and hopelessness as regards marriage in the female sex, and eccentricities that could no longer be screened from common observation, compelled the parents to have recourse to advice. These peculiarities, which are very various, have often originated in infantile diseases, of which the symptoms and duration have not been such as to excite serious apprehension, or in defective nursing and nourishment, or the neglect of hygienic advantages in infancy or childhood. A short attack of fever, perhaps with inflammation of the brain or its membranes, not of a violent character, may have produced structural change, partial effusion, or some permanent modification of a portion of the brain, only appreciable in its mental or moral effects. The family Practitioner, who knows the history and pedigree of his neighbours, could inform us that in many an example among his younger patients, where no actual madness has ever been betrayed, or where even a certain brilliancy of talent seems to exist, the want of steady application, the disregard of any serious moral obligation, or the extravagance, or the intemperance, or the visionary enthusiasm, or other infirmity of character which disappoints the hopes of those who are attached to them, have had their origin in some unhappy neglect, or some actual malady unheeded in their earliest days. Their failings only, or their faults, become obvious to all who know them, and are naturally regarded with general censure; but the Medical observer who has watched them from their cradle, and who has known their fathers and grandfathers, reflects on the career of these unhappy young persons with different feelings; for by him the disadvantages of their early days and the character of their ancestry is remembered, in which the foundations of their fatal eccentricities may have been more deeply laid.

Cases of a more declared kind, and in which the conformation of the head and other appearances indicative of the pre-existence of cerebral or perhaps of hydrocephalic disease are more clearly observable, are more especially presented to the Practitioner's attention; and these cases offer remarkable illustrations of partial injuries that have been effected, and also of how much that is worth preservation, remains, however oddly mingled and modified, and how much may yet be done by judicious care and cultivation. Children partaking of this character may have many faulty qualities, but these are conjoined with such as are attractive and calculated to win the affections of those about them, and when their condition is dispassionately considered they are found to have a claim beyond mere professional care. Their whole life, whatever advantages they may be fortunate

enough to obtain, must still for the most part be a struggle between good intentions and imperfect performance, between elevated aspirations and an afflicting consciousness of mutability and weakness. Their intellectual powers, often considerable, are exercised partially and fitfully, with interruptions and impediments to consistent action, fixed in the injured brain. This inalienable infirmity, the direct result of some structural change induced by disordered processes which have long since subsided, and which were caused by some of the accidents that have been alluded to, is the burden of the life of such patients, and, doubtless, heavy and hard to bear.

Patients whose state may be included in this class are generally introduced to the serious notice of a Physician when they have attained the age of seven or eight years, or later. They do not come before him as insane, but on account of the irregularities, both bodily and mental, to which they are subject, and which appear to be increasing. Inequalities of temper are usually represented as having been prominent, puzzling to the parents, perplexing to the teachers, and at length exciting apprehensions which make their expression unavoidable. The general description of such little patients (for they are ordinarily of small stature for their age) would comprehend a light active figure, but with a tendency to lateral rather than longitudinal growth; a head not equally developed in different regions, the occiput rather large, the parietal bones appearing as if pressed outward, or too much expanded laterally, the forehead wide, but somewhat bulging, and not elevated; an expressive face, in which some of the lineaments of childhood and of adult age seem indescribably blended; bright intelligent eyes, the pupils dilated; a dull complexion, which looks as if faded by long illness, but not pallid; alert muscular movements, somewhat restless, and obeying an impulse of observation of various objects in rapid succession, including the inquisitive Physician himself. The speech of these young patients is commonly prompt and fluent, and even more energetic and exact than the ordinary speech of early years. These particulars form a kind of general portrait, and several of them will be found met together in any case of the sort now under consideration, and in which there has been early disease of the brain or its membranes; the grouping may be various, but a distinct and peculiar character will usually be recognised.

The Medical history, when it can be obtained, will be found to be as diversified as the consequences are observed to be. Commonly, the report given of the case begins with some illness which occurred during the first dentition, characterised by convulsions, by one slight attack, or by several attacks more severe; or there has been some indisposition which created a suspicion of disease of the brain, and even of some effusion into the ventricles; subsequent to which occurrences, frequent and sudden awakings out of sleep have taken place, with imperfect consciousness and some disposition to violence. When there have been appearances of general improvement, unexplained invasions of physical uneasiness are said to have been noticed, sometimes accompanied with a feeling of sickness. The digestion has generally been feeble, the appetite for food not great, as in a healthy child; the circulation is hurried, and the extremities are habitually cold. The senses of these young people are generally acute, but subject to modifications or illusions which produce uncomfortable feelings or alarm. They are often invaded by a kind of timidity which makes the sight of a crowd disagreeable to them, and even the presence of other children productive of irritability, sometimes expressed by shrieking or by violent actions. There is, in most instances, much quickness of intellect; the children seem to acquire the art of reading and many minor accomplishments without formal teaching; but a mental peculiarity attends most of them, in consequence of which although they become proficients in some things they seem incapable of others which are not ordinarily found to be more difficult. In children who are idiotic this peculiarity is seen in a magnified form, a single faculty being often remarkably prominent; but the children now spoken of are far above the condition of idiocy. Their active imagination and keen curiosity, their precocious and not always convenient inquiries, their vivacity and variable humour, make them singularly interesting to those who have the care of them, and they become favourites even with the instructors whose plans they so perpetually interrupt. Much watchfulness is rendered necessary by their love of indiscriminate reading; and they have too often a morbid love of horrible subjects, tales of suffering, torture, or death; and the female children seem more especially to delight in older associates from whom they can obtain information on subjects which little girls are not generally encouraged to talk about. Altogether, there is in them so much ability, conjoined with so much inconsistency and wilfulness, as to make them subjects of incessant anxiety to their relatives, the question being always whether they will grow up dutifully and affectionately, and be capable of social or domestic duties, or, growing stranger and less governable as they grow older, end in becoming absolutely insane.

The management of these juvenile patients during the seven or eight years immediately before them, is of an importance which it would be difficult to exaggerate. Their hygienic conduct requires to be regulated with great regard to Medical advice, without which caution the parents make serious mistakes, too often deriving foolish gratification from permitting foolish indulgences. The whole physical life should at least be governed by the professional rules. Timely and proper medicine may be required for the removal of some obvious disturbance of health, but drugs of a violent character, ignorantly and frequently administered, with the additional severities of injudicious mental education, pursued during this important stage of life, when both the bodily and mental capacities are acquiring perpetual additions and modifications, are directly calculated to produce bodily deformity and weakness, and mental imbecility or madness. The knowledge of the best means of bringing up a young human being, on whose body and mind external circumstances have a continual operation, is very little diffused, even in communities the most advanced in civilisation. Education has made great and happy advances since the commencement of the present century, but in much that exercises an influence over health either of mind or body, there remains still much to be done. Many boys are still unfortunate enough to be consigned during precious years of life to teachers who have never given an hour's attention to the nature and mutual dependence of the mental faculties, nor to the relations existing between mind and body. Painful exercises of the memory are extorted by the rude infliction of bodily pain, and deficient powers are stimulated by additional tasks; and words of encouragement are seldom vouchsafed. Still, as was observed by one of our great English writers a century and a-half ago, the magazine of the memory is stored and stuffed betimes, and the conduct of the understanding neglected. Still, it may with equal truth be added, much pains are taken and time bestowed to teach us what to think, and little of either to teach us how to think. Many clever boys, overtasked, and many dull boys, neglected, still become irritated and insane, or stupid and useless for life. Fondness for varied acquirement, however likely to be practically useful, is seldom encouraged, and altogether the recollections of school-days are rarely satisfactory or agreeable: a few scholars look back upon them with pleasure, but men of business with regret, and the generality of mankind with detestation. Bodily exercises are more systematically attended to than formerly, but in many respects the welfare of the physical being in boyish years receives very inadequate consideration. The ventilation of school-rooms, and the tedious prolongation of school-hours, are only beginning to attract some attention.

As respects girls and young ladies, it is to be feared that a large majority of them continue merely to be taught a few accomplishments, and are left equally unacquainted with wholesome literature and domestic economy. It is, at least, rare to meet with a young lady who derives habitual pleasure from the perusal of the best writers either in the English, or French, or German languages; and drawing-room tables, subjected to critical inspection, are found to contain works of very doubtful value, interspersed too often with fanatical publications, of which the tendency is to lead the unhappy readers through paths of excitement to eventual despair. The ample book of nature, various, and delightful, and instructive, too generally lies unopened.

All these and other social faults existing, and many more, in the lower ranks of society, equally opposed to health of body and mind, it is curious to observe what fears are often expressed as to the effects of what is erroneously called increased civilisation. It is generally assumed that mental disease is becoming more and more common; but the assumption rests on no secure grounds, and assuredly what alone deserves to be regarded as civilisation is not likely to produce such a consequence. The means of diminishing the frequency of the

occurrence of insanity still receives small consideration, and the causes of mental derangement abound unregarded on every side. In relation to the great questions of education and of marriage nothing is viewed as of paramount importance to worldly advantage. The prudent management of the female parent during pregnancy and nursing; the preservation of the health of infants, the nourishment of the body during childhood and youth, the mental training for wisdom and happiness, are all more dependent on accident, influenced by position and circumstances, and regulated by custom, than governed by real knowledge and experience. Causes of physical degeneration and nervous imperfection are heedlessly accumulated, which it will be the glory of social science in a future age to avert. With the increase of knowledge, higher than mere worldly knowledge, not only may the diminished frequency of insanity be reasonably hoped for, but a larger diffusion of health and of mental capability among all classes of all communities, and many triumphs, still to be achieved, by perfectly healthy nervous systems, in arts and sciences and morals, followed by extended comfort and enjoyment in all conditions of life, for which, beyond doubt, the intellectual nature of man has been fitted by his Creator.

CASE OF MRS. PHILLIPS.

ALLEGED POISONING—EXHUMATION AFTER FOUR MONTHS' INTERMENT—POST-MORTEM APPEARANCES.

By JAMES EDMUNDS, M.D.

Mrs. Phillips was the wife of the well-known horse-dealer of Knightsbridge. After forty-eight hours' labour, followed by large hæmorrhage, she appeared to go on well, and Dr. Oldham, who attended her, in conjunction with Dr. Cahill, "dismissed himself" on the tenth day. Both gentlemen at that time also told Mr. Phillips, that he might proceed to York on business, as she was doing favourably.

The same night she was suddenly roused from sleep by her sister, and told that "the nurse was beating the baby." She became greatly excited, and afterwards went on badly; but on the sixteenth day she took some tea at five o'clock, and seemed pretty comfortable. An hour afterwards, several persons were suddenly called to her bed-room by a violent ringing of the bell, and "found her sitting up in bed with her mouth blackened and swollen, her nose bleeding, and scarcely able to breathe." She loudly accused her husband of having leant over the bed, when he thought she was asleep, and poured something down her throat out of a bottle, which had burnt her mouth and poisoned her. She called for a stomach-pump and mustard to remove the poison, and directed her mother to have her body opened after death. This charge was subsequently reiterated by her to Mr. Phillips on several occasions, in the presence of other persons. The mother and sister were turned out of the house, a housemaid was discharged, and Mrs. Phillips died three days afterwards. Affidavits of these allegations, in the most positive and circumstantial language, were made by several persons, and thereupon Mr. Humphreys ordered the exhumation from Kensal-green Cemetery, and requested me to examine the remains.

The interment had taken place in a high part of the cemetery, and the coffin was a double wooden one, seamed with pitch. In the interior was a quantity of water, together with sawdust round the body, and the odour, though peculiar and depressing, was not excessively offensive.

I found a large corpulent female body, decidedly handsome, and but little changed in appearance. The face and hands presented a greenish mottling; but the clothed parts of the body were at first fresh and almost natural in appearance, though after an hour's exposure the entire surface changed to a dull green colour. The hair and cuticle were loose, but the skin was everywhere sound and firm, and showed no evidence of injury or decay. The lips were encrusted and their margin irregular. The fleshy folds under the jaw were decayed at their edges, but unchanged beneath the cap-string and neck clothing. I could discover no trace of corrosion nor of staining about the face or neck, and the front teeth were beautifully white and sound, with their polish uninjured.

Each cheek was now cut through from the angle of the mouth to the ear, and the tongue and interior of the mouth carefully examined. The mucous lining of the lips and cheeks were mottled with a dark greenish colour, but I found no corrosion nor injury anywhere.

I then cut down the median line from the mouth to the abdomen. The flesh cut soft and tallowy, the muscles were pale, and the soft parts separated from the bones like well-boiled meat. I detached the gums from the lower jaw with the handle of a scalpel, and then removed the maxilla by wrenching it out with a strong stick, thus leaving the parts uninjured and admirably exposed for examination. The soft palate, pharynx, and rima glottidis showed no evidence of anything like corrosive poisoning. The sterno and costo clavicular ligaments were next cut through. An incision was made along each clavicle, and the bones wrenched away. The soft parts in front of the chest were turned aside, the ribs just in front of their angles were divided with bone forceps, and the front of the thorax turned down upon the abdomen.

The pleura was bright and healthy, but spotted with mildew; the lungs were slate-blue in colour, and much shrunken in size; and, excepting some old adhesions at the left apex, they were perfectly healthy.

The pericardium was distended with air, and rather dry; its lining bright and healthy; the heart was rather fat; its walls were thin, its cavity empty, and its valves, orifices, and great vessels were normal.

The trachea was now severed from the larynx, and its lining examined.

The mucous membrane was entire and healthy, but in the larynx there was a ragged ulcer about the size of a split-pea, just beneath the vocal cords. Viewed with a lens, a pink inflammatory halo was distinctly seen round it.

A great part of the lungs and heart were removed for analysis. Two ligatures were applied to the lower end of the œsophagus, it was then divided and carefully separated from the spine, and, together with the pharynx, larynx, tongue, gums, and part of the cheek and neck, was carefully preserved.

On opening the abdomen the stomach and intestines showed through a dryish transparent omentum; they were moderately distended with air, they had a reddish-yellow cast, and they were unusually transparent, but their serous covering was bright and healthy; their texture firm, and their appearance fresh and strikingly natural.

The gall-bladder was full; the liver slate-coloured and greatly shrunken, and the spleen small.

The diaphragm was slit down to the œsophagus; the stomach and intestines separately ligatured after discharging their gaseous contents; and they were removed together with part of the colon, the entire spleen, the liver, and the kidneys.

The intestines were free from disease, but their yellowish cast and remarkable state of preservation suggested the existence of the well-known sulphuret upon their lining.

A scalpel was passed through the symphysis pubis, and the bones wrenched apart with a chisel, thus exposing the contents without injury. The bladder was distended with air, and, with the urethra, was sound and healthy. The uterus was bright upon its serous coat, its texture dark coloured, its size and weight corresponding to about the fourth week after delivery. There was no trace of injury nor disease of the uterus or its veins; but the perineum had been badly torn.

The brain was pulpy and dark from congestion. Except in the head I found no evidence of blood in the body; the heart was empty, and all the vascular organs were much shrunken.

The examination entirely disproved corrosive poisoning (the form suggested by the allegations), and it also disproved the existence of visceral disease or of uterine mischief; the positive facts were congestion of the brain, the general anæmia, the remarkable state of preservation, the yellow tinge of the stomach and intestines, and the ragged ulcer on the posterior lining of the larynx.

The liver and other important glands were carefully sealed up in duplicate portions, and delivered to Dr. Harley for analysis. Iron and morphia were discovered, but no trace of mineral or other poison. The reaction of the fluids was alkaline.

This case strikingly displays the untrustworthiness of circumstantial evidence. It also illustrates the value of scientific chemistry in interpreting and correcting the sometimes equivocal post-mortem appearances.

The examination occupied about three hours; at first the odour was tolerable, after an hour's exposure the emanations produced a feeling of giddiness and a tendency to syncope,

subsequently the tissues melted down into a sort of pulp, and the stink became intolerable.

It is worthy of note that, including the forty-eight hours of labour, death took place precisely at the end of twenty-one days, and it is not unlikely that a masked form of fever lurked behind the symptoms, causing the tedious labour by prostrating her vital powers, and being followed by the hæmorrhage it predisposed to delirium and exhaustion. These were obviously excited by the uncontrollable mismanagement and maltreatment of those relatives whose representations subsequently brought about the investigation. The Medical evidence clearly traced the death through tedious labour, hæmorrhage, perpetual excitement, and reiterated shock to delirium, and fatal exhaustion.

The black colour about the mouth, and bleeding nose, are to be explained by the fact that a mixture of citrate of iron and lemon-juice was being taken. Mr. Phillips, in his anxiety to get her to take the medicine, had poured some into her mouth out of a teaspoon, when she was half asleep. An apthous state caused the mouth to smart (or be "burnt") by the lemon-juice, and she spat the medicine out angrily, and in her semi-maniacal state, accused her husband of having "poisoned her." The acid citrate of iron gave her lips a red or blood-like colour, and this, in some places, was turned to an inky stain by the tea which she had swallowed a short time before.

2, Spital-square.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

(Continued from page 640, Vol. I., 1862.)

The following nine cases of craniotomy occurred in my practice during 1840 and the first four months of the year 1841 :—

Craniotomy.

Case 109.—On March 11, 1840, at 12 noon, I was sent for by one of the District Surgeons to Mrs. C., Rosemary-lane, a patient of the Royal Maternity Charity, in labour of her first child. The membranes had been broken thirty-six hours; the pains had been very strong, but were now weak and useless; the pelvis did not measure quite three inches in the conjugate diameter at the brim; the head was entirely above the brim; and the funis was prolapsed, the vessels not pulsating; the os uteri could be felt all round. The woman was much exhausted; and as the child was incontestably dead, I had no hesitation in immediately perforating the head and delivering. I had a good deal of difficulty in extraction, which occupied fully an hour. However, the patient recovered perfectly well; the placenta was expelled naturally.

Craniotomy.

Case 110.—On April 4, 1840, at 5.30 a.m., I was requested by another of the District Surgeons of the Royal Maternity Charity to visit Mrs. S., in Spitalfields, aged 43, in labour of her first child. The midwife was first called to her at three o'clock the morning before; the membranes were then broken, but nobody could say when that happened. I found her much depressed, with a very quick pulse, and dejected countenance; the head was jammed in the brim of the pelvis, which did not measure more than three and a-quarter inches in the conjugate diameter; the base being quite above; neither ear could be felt. The vagina and external parts were exceedingly rigid, swollen, and very sensitive; the os uteri was entirely dilated. It was evident that delivery must be immediately resorted to, and that the head was too high for the efficient application of even the long forceps. I therefore perforated it, and had very great difficulty in extracting, even after a great part of the brain was removed. The operation occupied an hour. The uterus was so completely worn out, that it did not contract to expel the placenta; I therefore took it away by introducing the hand. There was very little hæmorrhage, and it remained firm. It was necessary to introduce the catheter once after delivery. Subsequently to that time she passed water freely. But a slough took place in the vagina. On September 18 she called on me, in good health, but with that organ much constricted for about two inches within the vulva upwards. She had menstruated regularly five times since her confinement. I placed her under a course of treatment to relax and dilate the vagina, and soon lost sight of her.

Craniotomy.

Case 111.—On April 26, 1840, at 8 a.m., a Medical friend requested me to see Mrs. H., Clerkenwell, aged 40, in labour of her first child. The membranes broke early in the morning of the 24th. The pains had been very strong up to the evening before I saw her. They then ceased, but she got no sleep. I found her very restless, the pulse at 150 and small, the countenance very much depressed; she was vomiting a large quantity of black offensive fluid. The head was locked in the pelvis, which was narrow throughout its whole extent, especially at the outlet, consequent on the tuberosities of the ischia approaching each other too closely. The scalp was tumid and emphysematous; and the child's body emitted a most offensive putrid odour. The os uteri was quite dilated. The external parts were very rigid, dry, hot, swollen, and acutely tender. I had much difficulty in passing the catheter, owing to the pressure occasioned by the head, but I succeeded in drawing off nearly two pints of urine. I immediately perforated the skull, and delivered with much difficulty in about an hour. The placenta did not descend, and some flooding coming on, I removed it by the hand from the uterus. It was merely retained by inertia. The stimulus of the introduction of the hand into the cavity excited the uterus to contract; and there was no more hæmorrhage. A part of the neck of the bladder sloughed away, so that she recovered with a fistulous orifice into the vagina.

N.B.—In almost all the cases which I have seen of a fistulous orifice into the neck of the bladder consequent on labour, the child has been putrid; and I attribute the slough more to contact with the putrid head than to simple pressure on the part.

Hydrokephalic Fœtus—Craniotomy.

Case 112.—On May 29, 1840, at 3 a.m., I was sent for by a Medical friend to see an unmarried woman in Wapping Workhouse. It was her second child; with the first her labour had been unusually easy. The membranes in this case broke on the 24th; the pains had been very strong ever since, till the day before, when they began to decline; and at my visit they had entirely ceased. I found the head dropsical; it had been partially thrust down into the pelvic cavity, and was making great and uninterrupted pressure on the parts within. She was in a state of great prostration, indeed *in articulo mortis*. The vomiting, which had been almost incessant, had ceased, the pulse was scarcely to be counted, the extremities perfectly cold, her voice faint, and her mind wandering. As I consider it a maxim never to allow a woman to die undelivered, provided delivery is possible, I immediately punctured the head and gave exit to more than a pint of serous fluid. The pelvis being capacious, extraction was most easily effected on the collapse of the skull. The child was not quite at full time, and was dead before the head was perforated. The uterus did not contract to expel the placenta, which I removed manually. The woman never rallied in the least, and died at night. The skeleton of the fœtus is preserved in the London Hospital Museum.

N.B.—Whenever a head is indisputably discovered to be dropsical, and the uterus has acted expulsively for three or four hours without effect, it appears to me that our bounden duty is to let off the fluid by puncture, even though the fœtus be alive, to prevent the possibility of such a termination as that detailed above; and for arguments in favour of that practice, as well as for cautions, I beg to refer to the fourth edition of my work on "Obstetric Medicine and Surgery," page 253.

Craniotomy.

Case 113.—On September 8, 1840, at 7.30 a.m., I was sent for by a Medical friend to Mrs. S., Shoreditch, in labour of her first child. The membranes broke on the night of the 6th, at 1.30. The pelvis was very narrow throughout. The brim measured about three inches in the conjugate diameter. The os uteri was quite dilated, the head was impacted, a considerable portion occupying the pelvis, but the base being above the brim; neither ear could be felt, and the face, which originally presented to the left thyroid foramen, was now looking to the left ilium. She was a good deal exhausted. I attempted to deliver by the long forceps, but could by no means get them to lock; and as the child was dead I did not hesitate to perforate. The delivery occupied about half an

hour. The woman recovered perfectly; and I have brought on premature labour for her four or five times since.

Craniotomy.

Case 114.—On January 26, 1841, at 9 p.m., I was sent for by a Professional friend to Mrs. F., in Poplar Marshes, in labour of her twelfth child. She had always suffered lingering labours. The membranes broke at 6 o'clock the evening before; the pains had been very violent, but had now almost ceased; the pulse was quick; the countenance suffused; the uterus on external pressure was exceedingly tender, and she complained of much pain when a vaginal examination was instituted. She had a bad cough, which made her shriek violently. The head was entirely above the brim, which did not measure more than two inches and five-eighths in its conjugate diameter. The os uteri was quite dilated. It seemed to me, from the history of her previous labours, that her pelvis had been gradually diminishing in size in the conjugate diameter for some years. As it was evident delivery must be effected without loss of time, I perforated, and extracted the child in half an hour with much trouble, after having evacuated the whole of the brain. The placenta passed soon, and she recovered perfectly well.

Craniotomy.

Case 115.—On February 10, 1841, at 9.30 a.m., a Medical friend sent for me to Mrs. H., in Bethnal-green-road, in labour with her first child. The membranes had been broken for twenty-eight hours, the pains had never been powerful, and the woman's strength was not much impaired. She was greatly deformed in her person, and the pelvis at the brim was under two inches in the conjugate diameter. The os uteri was fully open. The pelvic deformity was of the elliptical variety, there being more room on the left side of the sacral promontory than on the right; but this space was filled by the right foot, which came down when the membranes broke. My friend had been trying to turn the child by bringing down this foot, but could not succeed. Fearing, even if the child was turned, there would be great difficulty in extracting the head through so small a pelvis after having perforated it, I determined on evacuating the brain at once. I therefore, having put a tape round the ankle to hold the foot as a reserve, opened into the skull. I brought away the whole of the parietal bones, a great part of the frontal and occipital bones, evacuated the whole of the brain and cerebellum, and broke each orbit and the foramen magnum, so that I had no purchase left for the crotchet. This took me two hours of hard work, and yet the base of the skull remained above the pelvic brim. I then made traction at the foot, turned the child with less difficulty than I expected, and brought the head through the brim with comparative ease; because not only was the upper part of the skull broken to pieces by my instrument, but the base was also. The placenta gave no trouble, and the woman recovered without a bad symptom. On April 6, 1843, I learned that she was pregnant again, and recommended that premature labour should be brought on at six and a-half months.

Craniotomy.

Case 116.—On March 9, 1841, at 5.30 p.m., the gentleman who called me to the last case, asked me to see Mrs. G., Bethnal-green-road, aged 38, in labour of her first child. The membranes broke on the 7th, at 2 a.m., sixty-three hours before; the pains had been harassing her ever since, but they had never been strong. I found the head partly in the pelvis, the base of the skull being above the brim, which was narrow in the conjugate diameter. Though there were no very urgent symptoms, the length of time the woman had been in labour fully warranted delivery; I therefore tried to introduce the long forceps, but as I could not lock them easily, I desisted from my attempts with that instrument, and as the child was dead, perforated the skull, and delivered without very great difficulty. The placenta was soon expelled, and the patient recovered well. Had I succeeded in locking the blades of the forceps, I should not have used any exertion in endeavouring to extract, since the child was dead; and the reason I tried them was because I think it better to bring a child into the world unmutilated, if that can be done without risk to the mother.

Craniotomy.

Case 117.—On April 10, 1841, at 9.30 p.m., I was sent for by one of the midwives to the Royal Maternity Charity to Mrs. M'C., Bermondsey, in labour of her first child. The membranes broke at 1 a.m. the day before; the head, as in the last case, had come partly through the brim, the base remaining above; it was perfectly wedged, the face presenting towards the right thyroid foramen; the os uteri was quite open. Neither ear could be felt; the woman's powers were much exhausted, and there had been no pains all day. Although the child was dead, for the same reason as given in the last case I tried to deliver by the long forceps, but could not lock the blades. I therefore at once perforated, and delivered in about an hour. The placenta was soon expelled, and the woman did well.

8, Portman-square.

(To be continued.)

TWO CASES OF

OPERATION FOR STRANGULATED FEMORAL HERNIA.

By THOMAS MASSEY HARDING, M.R.C.S.Eng., L.S.A.

Case 1.—On Sunday, March 30, I was called to Mrs. P., aged 70. She had suffered from a femoral hernia for more than thirty years, and had worn a truss occasionally. Her husband had also a hernia, and the arrangement between them was peculiar and original. Sometimes the husband wore the truss; sometimes the wife. When I saw her she said that the swelling came down more than usual on the Thursday previous; she had tried to put it back, but being unable, she put the truss on over the swelling. She had been vomiting; there was no pain in the tumour, which was remarkably hard and unyielding, so hard as to give to the touch the sensation of a solid even scirrhous gland. Attempts to reduce the swelling were quite ineffectual, and warm fomentations were applied, and grain doses of opium given every eight hours. No improvement resulted; the vomiting increased; became stercoraceous; still no pain or tenderness about the tumour.

On Wednesday, April 2, I saw the patient in consultation with Mr. A. Freer and Mr. Horsley, and as the vomiting was violent, increased by handling the swelling, and consisting of the contents of the small intestines, we decided to operate. Chloroform was administered by Mr. Horsley, and I performed the operation in the usual way. Having opened the sac, which contained a considerable quantity of fluid, a small knuckle of intestine was found protruding; it was quite healthy, the constriction not being excessive. There was no stricture formed by the muscular or tendinous structures external to the sac, but the sac itself was so much thickened as to grate under the knife, and the strangulation was produced in its hard and thickened neck. The relief from the operation was immediate, the bowels were opened on the tenth day, and the patient recovered without a bad symptom.

Case 2.—On April 22 I saw Mrs. W., about 12 p.m. I had attended her in her confinement on the 17th of the same month. She had occasionally suffered from a swelling in the groin, which went away completely; she was ignorant of its nature. She said that she had got out of bed, having an inclination to go to stool, and while straining she suddenly felt a swelling in the groin. It was painful; and she had a distressing dragging feel about the navel. She had vomited freely. Upon examination, I found a tumour about the size of a small apple, intensely painful to the touch, which also produced vomiting. I tried to return it by the taxis, but without success. I then administered an enema and gave opium, from which she felt great relief. Next morning, at 10 a.m., she had had some sleep, and expressed herself relieved; but in two or three hours I saw her again; she was in great pain, the tumour intensely painful. The pain was excessive, like that of ileus; and she declared she could not live in such pain.

I again availed myself of the aid of Messrs. A. Freer and Horsley. Some further attempts were made to reduce the hernia by the taxis, but on account of the excessive pain induced by handling, I was averse to a continuance of the efforts, believing the strangulation to be of the most acute character, so as to require immediate relief. With the consent of Messrs. Freer and Horsley, I proceeded to operate, having first put the patient thoroughly under the influence of chloroform.

The steps of the operation present no feature of interest; but on opening the sac a quantity of very dark serum escaped,

and the bowel was seen to be intensely congested, of a dark purple colour, and in one spot the natural brightness of surface was considerably dulled; in fact, there was a spot of commencing change which in a few hours would have been a slough. There was some difficulty in dividing the stricture, so closely did it embrace the bowel.

Immediate relief to pain succeeded the operation, and the patient made a good recovery. The bowels were opened on the tenth day, and Mrs. W. is now (May 27) able to follow her usual occupation—of course wearing a truss.

The coincidence of the puerperal condition is a remarkable feature in this case. It was much to be feared that the tendency to peritoneal inflammation would be much increased; fortunately, no such result occurred.

Remarks.—The two cases offer some points of contrast. In the first, the hernia came down on March 27; but though she was unable to return it, and there was some vomiting, yet the inconvenience was so little that I was not sent for till the 30th, and the operation was delayed till April 2, six days from the descent of the bowel, notwithstanding which the bowel was healthy. In the second case, the whole time from the descent of the bowel to the operation was less than twenty-four hours, yet the bowel was intensely congested, and the process of mortification imminent.

High-street, Stourbridge.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

THE LONDON HOSPITAL.

ONYCHIA MALIGNA OF THE GREAT TOE—CURE BY LOCAL USE OF ARSENIC.

(Under the care of Mr. CURLING.)

[Reported by Mr. CHARLES TAYLOR.]

ELIZABETH P., aged 40, was admitted into Sophia Ward, under the care of Mr Curling, on January 14, 1862. She was a fat, healthy woman. The patient stated that whilst cutting her great toe-nail in July last, she wounded "the quick," which was followed by immediate hæmorrhage and subsequent ulceration, with great constitutional disturbance. When admitted she had a rapid feeble pulse, a countenance expressive of pain and anxiety, and complained of restlessness and loss of appetite. On examining the great toe of the right foot it presented the appearance of a large, bulbous, ulcerating tumour. The whole toe was enveloped in dusky, livid inflammation, which extended down its metacarpal bone and inner border of the foot. Its dorsal aspect was deeply excavated by unhealthy ulceration, extending towards the base of the first phalanx. A fetid sanious discharge was copiously secreted, and the decayed remnant of the nail lay buried in the granulations. So enlarged and bulbiform had the extremity of the diseased toe become, that the end of the second toe lay in a kind of cushion, formed beneath it by the thickened epidermis deposited at the sides. The patient expressed herself as having suffered a "martyrdom" of pain, for which, on her own responsibility, she had taken large doses of laudanum, and had come to the Hospital fearing she had no alternative but to submit to amputation of the toe. Poultices were applied to cleanse the slough, and at his next visit Mr. Curling removed the remains of the dead nail, ordered another poultice, and directed me, as dresser to the case, to apply in the morning a lotion composed of equal parts of liquor arsenicalis and water. This was done, and caused severe smarting, burning pain, which lasted about two hours. In the evening to be poulticed, and a grain of morphia given at bed-time.

On the second day after the application of the arsenic the character of the ulcer was greatly altered. The thin, fetid secretion had ceased, and the pale, flabby, superabundant granulations were becoming here and there florid, whilst the patient experienced greater ease than she had known for some time. The ulcer was dressed with the arsenical lotion but four times, on alternate days, wet lint being applied during the intervals. Each application caused pain, but not so severe or lasting as on the first occasion of its use. Strips of lint, soaked in nitrate of silver lotion, were then applied, and support given to the edges of the now healing ulcer, and at the end of a month she was discharged perfectly cured.

I have brought forward this case to illustrate the apparent ease with which a most severe form of onychia was arrested and speedily cured. The change effected in the ulcer was most rapid and marked; as was also the condition of the patient. As the pain to which she had so long been subjected became mitigated, and the use of opium, to which she was habituated, was gradually withdrawn, she lost her peculiar anxiety of countenance; her appetite returned, and sleep became natural and unsolicited. On leaving the Hospital she expressed herself grateful, not only for the cure of the diseased toe, but of the habit she had acquired of taking opium. She assured me that she had at one period consumed as much as from one to two ounces of laudanum daily.

TUMOUR IN THE CERVICAL REGION—PRESSURE UPON THE GREAT BLOOD-VESSELS—COMA—DEATH.

(Under the care of Mr. CURLING.)

[Reported by Mr. CHARLES TAYLOR.]

Charles A., aged 57, by trade a plumber, was admitted into Talbot Ward, on January 22, 1861, under the care of Mr. Curling. He had a large tumour, extending upwards from the clavicle to the ear on the left side, and forwards and backwards towards the mesial lines of the body; very hard, movable, and smooth and dense throughout, except at a small point in the posterior margin, around which there was a circumscribed spot of capillary congestion, and at which a sensation of softness or fluctuation might be detected.

The patient stated that he had been a healthy man during the whole of his life, that he belonged to a very healthy family, and, although he had made many inquiries, was unable to learn that any of his relatives had ever suffered from similar or other tumours. He first perceived an enlargement, about the size of a Barcelona nut, five months ago, immediately beneath the angle of the jaw. Took no notice of it, as it caused no pain. It remained painless and stationary for about two months or rather more, when it rapidly increased in size, giving rise to the most excruciating pain. Experiences dull, aching, constant pain within the head and at the back of the head, down to the spine of the scapula. A stout, well-nourished man; no appearance of a cancerous diathesis; had a pained and anxious expression of features. He complains mostly of the persistent and oppressive pain within his head, depriving him not only of sleep and desire for food, but rendering him most anxious for some operation that should relieve him of the tumour, or that death should speedily terminate his pains.

He was placed upon milk diet; and half a grain of morphia at bed-time; but this producing no effect, he was subsequently ordered another grain.

A week after admission, Mr. Curling passed a grooved needle into the fluctuating point at the posterior border, when a small quantity of thin sanious fluid oozed out.

On February 1 he became excited and delirious, and endeavoured to leave his bed; he then relapsed into a drowsy, semi-comatose condition, refusing answers if spoken to, and with difficulty roused. From this he passed into a state of deep coma, and died somewhat suddenly on the evening of February 4, 1861, thirteen days after admission.

I submit this case as one of considerable clinical interest:—1st. As regards the history and growth of the tumour. The healthy appearance of the patient; absence of family history of cancer; long previous good health; healthy condition of surrounding integuments; no glandular implications elsewhere;—all tended to obscure the diagnosis, although its extraordinary rapidity of development favoured the view of its being malignant. 2nd. To the Surgeon it is of interest, as the post-mortem examination revealed important anatomical relations of such a character as must have rendered the removal of the tumour very dangerous had Surgical interference been attempted. The sterno-mastoid, spread out and flattened, covered the tumour; the external jugular vein occupying its

normal position. The descendens noni nerve and internal jugular vein were embedded within the mass; the vein being flattened as it approached the sternum, and its canal obliterated. The common carotid artery was flat and ribbon-like, but still pervious, and was, with the pneumogastric nerve, contained in the fibrous wall of the tumour, from which they were with difficulty dissected.

The post-mortem, as described and performed by Mr. Maunder, in revealing the condition of the great vessels, may explain the delirium and coma that preceded death. All the organs examined healthy. Vessels of the brain slightly congested, and fluid contained in the right ventricle.

The tumour weighed eighteen ounces; was soft and brain-like—mottled-red in parts, and suppurating, in others pale and disintegrated. Examined by Dr. A. Clarke, was found to possess the microscopical characteristics of encephaloid cancer.

CASE OF SUSPECTED FRACTURE OF BASE OF SKULL—LACERATION OF BRAIN?—RECOVERY.

(Under the care of Mr. CURLING.)

[Reported by Mr. CHARLES TAYLOR.]

Dennis C., aged 22, a powerfully-built Irish seaman, was admitted into Gloucester Ward, under the care of Mr. Curling, at about 8 a.m. on Saturday, January 26, 1861. He had fallen from the main-topsail yard of a large vessel lying in the docks, a height of 65 feet, and was said, by those who witnessed the accident, to have overbalanced himself whilst hanging over the yard, and so descended head first, falling upon the ship's deck, and striking "the top of his head" with immense violence.

I saw him immediately upon admission, being dresser for that week. He was lying in profound coma, breathing stertorously; pupils insensible to light; the right pupil small and contracted, the left larger and more dilated; copious hæmorrhage from left ear; slight hæmorrhage from right ear; no scalp wound or external evidence of fracture of vault of skull. Pulse full, slow, and labouring; skin hot, and clothes moist with perspiration. On getting him to bed, I carefully sponged the ears, and satisfied myself that the hæmorrhage did not occur from injury to the external ear, but on the left side saw it welling out from the internal meatus. Right arm heavy and listless. Ulnar fractured at its middle. Reflex action readily excited. On being pinched or pricked with a needle, drew up the irritated limb, but gave no expression of pain. No priapismus nor vomiting. Head shaved and ice applied. Milk diet ordered.

In the evening, condition much the same; breathing stertorous; pupils insensible; hæmorrhage from ears still going on, but not so profusely; lying upon his back, with his knees drawn up, and occasionally moving the lower limbs with spasmodic twitching of the muscles, and moaning. Has taken no food, nor passed water. Catheter introduced, and bladder relieved.

To go into a detailed account of the daily progress would be tedious, and protract the length of the report without being sufficiently important. I pass on therefore to Sunday, February 3, being eight days after the accident.

During this interval he had remained perfectly insensible, neither speaking nor giving evidence of sensibility when shouted at or spoken to. Urine and fæces ejected involuntarily, chiefly lying upon his back with his knees flexed and drawn towards the abdomen; moaning sometimes loudly, and tossing up the uninjured arm. Countenance pained; breathing occasionally stertorous. During this period six leeches have been applied to each temple. Croton oil given. Turpentine enemata, and blister to nape of the neck. Hæmorrhage ceased on Saturday, February 2.

3rd.—Seen by Mr. Hutchinson, lying in the comatose condition just detailed; ordered venæsection, ad. ʒxvi. statim, ol. crotonis tiglii mij. h. s. s.

6th.—For the first time displayed symptoms of approaching consciousness, made use of several incoherent sentences, and appeared to recognise his aunt, who was in attendance upon him; allowed her to feed him with arrowroot, of which he partook a large quantity; up to this time there had been considerable difficulty in getting anything into his mouth. Bowels obstinately confined. Urine and fæces passed involuntarily in the bed, patient appearing to possess no consciousness of the act.

10th.—Copious serous discharge discovered this morning flowing from the left ear.

This continued gradually abating in quantity until the 14th, when it ceased. Taking a grain of calomel night and morning.

16th.—Seton passed through the nape of the neck.

At the end of the fifth week of his admission he was allowed to be dressed, and got out of bed; his condition being then as follows:—Countenance vacant and imbecile; sitting by the fire for some time with his chin drooping on his chest, as though his head was heavy, or his eyes intolerant of light; exceedingly petulant and irritable; swearing, and employing violent gestures if spoken to or interrupted; habits dirty; passing urine and fæces in bed and in his trowsers, not apparently from any physical inability to prevent their evacuation, but from a childish ignorance, or disregard of cleanliness; if spoken to, his memory appeared a blank; had no idea of having met with an accident, although he had some latent associations connected with an Hospital; appetite voracious; allowed two chops daily; milk and bread. Taking iodide of potassium gr. v. bis die, and an occasional purge of pil. coloc. co. gr. x. h. s. From this condition he gradually improved until the end of March, 1861, when he was discharged. His memory at that time was returning. He would relate scenes connected with his life as a seaman. Mention names of vessels, their commanders and destinations; but could not pursue the same subject to a termination. He would ramble from one topic to another, and combine the most opposite circumstances. He was deaf upon the left side, a fact only latterly arrived at, and found not to have existed previously to the accident. He had been taught to use the closet, and there obey the necessities of nature. This he did with over scrupulous punctuality; often going, as observed by the nurse, merely for the purpose of letting others know how cleanly he was becoming. He had now become exceeding erratic, rising early in the morning and rambling about the wards, knocking generally at the door of the head-nurse of the ward and inquiring for her, appearing to entertain a most simple and child-like affection towards this person, who had been exceedingly kind to him during his illness. His countenance bore the stamp of great mental vacuity; the features generally moved as in the acts of smiling or of laughter. Indeed, his condition at this time may be best described as a robust young imbecile. In this state he left the Hospital.

Note.—I have introduced the report of this case, as being one of the most severe injuries to the head, attended with the most dangerous symptoms, from which I have seen recovery during my attendance upon the Surgical practice of the London Hospital. Falling from a great height, with considerable violence, and striking the vertex of his head, he was brought in with such symptoms as are usually associated with fracture of the base of the skull:—hæmorrhage from the ear, long-continued coma, and subsequent escape of a clear serous fluid (probably sub-arachnoid?), ultimate loss of memory, deafness, and condition verging upon imbecility. Adopting a peculiar flexed condition of the trunk and limbs, attended with muscular irritability, twitching and moaning. There were also certain symptoms which appeared to indicate laceration of the brain substance. All this occurring to a young man in the prime of muscular vigour, and who previously to the accident was considered a smart, active, shrewd seaman.

In order that this report may be rendered complete, as regards its facts, I have, with considerable difficulty, discovered the present residence of the patient and seen him. I am therefore enabled to append a note as to his present condition, and that during the intermediate period. By the aunt who attended upon him constantly during the early weeks of his illness, and with whom he has lived ever since he left the Hospital, I am informed that he was for some time a source of great trouble and anxiety to her, wandering about the streets from morning to night, and obliged to be attended by his brother or herself; frequently most violent in his language and behaviour; irritable and quarrelsome to an alarming degree—rendering him so great a contrast to his former self, compelling her to remove with him from one lodging because the numerous children living close around them annoyed him with their playing and shouting, so much so as to incite him to rush out upon them, never offering them any injury, but only seeking to rid himself of their annoyance. Light also appeared very objectionable, as he always dragged down the blinds wherever he went.

His memory for a long period continued void and confused.

He was six or eight months before he could be persuaded that any accident had occurred to him, and that he had been in the Hospital, although he twice strayed from his home on Sundays, and entering the Hospital with other visitors, was found roaming about in a purposeless, unsettled manner. About five months since he had a fit in the street; in "strong convulsions" five hours; insensible about thirty hours; attended by parochial Surgeon. Went to work for the first time in September, but often had to leave off on account of severe headache and a fear of falling from ladders or platforms on which he might be employed. Fell into the dock waters one night; but on inquiry I should attribute this either to the darkness of the night or some accidental circumstance uninfluenced by his mental condition, as I find that several men fell from the same drawbridge during the same evening.

April 3.—Found him this day, in the neighbourhood of Shadwell, in rude, robust health, fat and ruddy; greeted me warmly as having been connected with his stay in the Hospital, but in what manner by no means certain; knew he was in Hospital, and Mr. Curling was his "doctor;" had been told he had "a heavy fall" from a Yankee ship, but did not remember it. His aunt told him so, and he believed it. "Was first-rate," when asked about his health; did have the headache wonderfully bad a while ago, but not lately. Goes to work occasionally; means to go again next week; finds he cannot work as long as the other men, but hopes he shall soon. His general appearance was not nearly so idiotic as when I last saw him, in September, 1861. Although there is a very distinguishable vacancy of countenance, and a continued interruption of his conversation by laughter and gesticulation, he is far more rational and coherent than I had anticipated to find him. From questions put to him for that purpose, I am led to believe that his virile powers have become impaired since the injury to his brain. His brother appears to confirm this view. There is a drooping of the upper eyelid of the left side, as though he had a partial ptosis, and the angle of the mouth appears drawn a little upwards on the right side.

He is now a good-tempered, humorous, harmless fellow, wandering about unmolested, occasionally entering upon a day's work, but seldom completing it. He has lost that peculiar irritability and violence of temper which marked the early months of his convalescence; and, in the progress of time, if he were properly taken care of, and unexposed to accident or excitement, I am induced to believe, from his present condition, that he might yet become, mentally, much improved.

HOSPITAL FOR SICK CHILDREN.

DIPHTHERIA—TRACHEOTOMY ON THE TENTH DAY—RECOVERY.

[Under the care of Dr. HILLIER.]

[Reported by Mr. GEE, M.B.]

JAMES M., admitted May 17, 1862, aged 4 years and 2 months. Fair complexion, light hair, transparent skin; aspect that of tuberculosis; well nourished; not at all rickety. Health previous to diphtheria good for last fifteen months. Two or three children died in the same street of inflammation of the throat (rapidly fatal) about the same time that our patient was attacked. At the school to which the boy had gone, several children have died of "bad throat" within the last month, *i.e.*, previously to May 17.

May 8.—In the morning he was noticed to have a hollow cough. He was kept at home for this reason.

9th.—He complained of sore-throat in the evening. The frequency and harshness of the cough much increased.

10th (3rd day).—Brought to the Hospital, when he was seen by the House-Surgeon, Mr. Gee. The child then seemed very ill. Distinctly laryngeal breathing and croupy cough at once fixed attention. On examination of the throat lymph was seen on the right tonsil and uvula, but the gravity of the affection of the air passages quite obscured the consideration of the condition of the fauces. Ordered ipecacuanha as an emetic, and carbonate of ammonia in camphor mixture. Beef-tea. No local application. The child was not admitted, the mother did not wish it.

Later in the day the breathing was said to have been improved. He seemed to swallow with difficulty.

11th (4th day).—The exudation is now limited to the right tonsil; the breathing is not much improved, and the child is lower; repeat the emetic; wine was now ordered.

12th.—No noteworthy change.

13th (6th day).—He seemed so much better that he was not brought to the Hospital. At night, however, he became very hot, and kicked the bed-clothes off. His breathing was very much worse.

14th (7th day).—Seen this morning. Symptoms of affection of the air passages were greatly increased. Emplastrum lyttæ regioni laryngis; sulphate of zinc for an emetic. The dose of carbonate of ammonia was increased, and it was given with chlorate of potash. The blister rose well; his breathing was much relieved, and he slept well.

15th (8th day).—Not brought. His voice continued feeble and husky, but otherwise he was apparently on the way to recovery.

16th (9th day).—The same as fifteenth until the evening; he then gradually became much worse; he passed "a fearful night," without any remission of sufferings. He could not lie down at all, and all the other symptoms of suffocation were well marked. His voice was reduced to a whisper, and he coughed up much bloody "corruption."

17th, at 10 a.m. (10th day).—Pale lividity; tracheal rattles feebly heard; pulse very frequent and feeble; extremities cold; great retraction of the base of the thorax during inspiration, especially about the xiphoid cartilage. Death by asphyxia appeared imminent. A little brandy was offered, but the child clenched his teeth, and his resistance could not be overcome.

Operation.—Tracheotomy was performed by the House-Surgeon at 10½ a.m. The child scarcely resisted, and made no noise during the operation. The trachea was opened above the isthmus of the thyroid. There was not much bleeding; the breathing had ceased by the time the trachea was exposed; the radial pulse had totally failed, and the pupils were scarcely affected by the stimulus of light. An enema of brandy was given, the trachea opened, the tube introduced, and artificial respiration was kept up by manipulating the chest; much bloody mucus was expelled, and also a long clot. In a minute or so the child breathed of his own accord, but shallowly. Gradually respiration became more forcible, but still the child did not recognise his mother. His colour improved, and the pulse returned. His hands became warm. A little brandy was put into his mouth, of which part ran out, and part was swallowed. For an hour and a-half it was uncertain whether he would recover or not. One hour after the operation his pulse was 165. He was moved into a steam-bed at 70° F. He passed urine which was slightly albuminous; drank some beef-tea.

2 p.m.—Sitting up, warmth and colour natural. A larger tube was introduced, and much mucus was expectorated, and also a membranous cast, both a little streaked with blood. Soon after pulse 160; respiration 35, easy.

From this time for five days the condition of the child did not much change, except that the albumen disappeared from the urine. He had considerable difficulty of deglutition after a day or two; that is to say, unless the food was given in very small quantities at a time it caused a cough. For the first three days vomiting also was troublesome.

On the twelfth day (third from the operation), May 19, a tube having a laryngeal aperture was introduced; still no air passed through the larynx. Portions of false membrane, sometimes of considerable size (once about two inches long), were coughed up from time to time. Ordered ʒj. brandy every two hours; beef-tea, milk, eggs, etc., *ad libitum*.

18th.—Calomel, one grain every two hours. (About sixteen grains of calomel were given altogether.)

22nd (15th day).—Tube was removed. On closing the opening, breathing through the larynx was very fair. Granulations rapidly sprung up and closed the opening. Cough on drinking much fluid persisted. Frequency and feebleness of pulse kept up for some days. The urine once or twice contained a little albumen.

23rd.—A grain and a-half of quinine every six hours.

27th.—A mixture containing sesquicarbonate of ammonia, a grain and a-half; chloric ether, five minims; ipecacuanha wine, four minims; camphor mixture, a drachm and a-half, was given every four hours. It is necessary to state that, in consequence of the vomiting, the medicine was not always retained, although given as often as stated. Enemata were several times had recourse to. The quantity of brandy was

gradually diminished, and on May 24 the child began to take solid food.

June 4 (28th day).—Discharged. The following note was then taken:—Lung sounds normal; fluids very seldom cause cough; no albumen in urine; boy has been up for two days; the wound in the throat is reduced to the size of a split-pea and is rapidly healing.

Remarks, by Dr. Hillier.—The occurrence of several cases of rapidly fatal throat affection in the street from which this patient came, and in the school to which he went, is noteworthy. The larynx seems to have been involved as early as the third day; the symptoms were for a time relieved by emetics. I have not frequently seen any benefit from these remedies unless they have been given at a very early stage. On the sixth and seventh days, the dyspnœa being much increased, a blister was applied, and carbonate of ammonia with chlorate of potash given internally. These measures were followed by temporary relief. On admission on the morning of the tenth day, the child was moribund from asphyxia. A more striking instance of the value of tracheotomy could not be desired. The child was already pulseless, and his eyes were almost insensible to light. In the course of an hour and a-half he began very decidedly to rally, and in three hours was quite easy, the natural tint of skin and normal temperature having returned. The matters expectorated for several days were very tenacious, and on one occasion a distinct membranous cast was brought up. Under the influence of calomel, combined with nourishment and a moderate amount of stimulant, the child steadily improved. The albumen soon disappeared from the urine. Had the case come under my care on the third day, I should certainly then have given him small doses of calomel. Subsequently to the date of this report, the child remained very weak, and was a few days later attacked with central pneumonia accompanied by a very irritable cough, especially on drinking. It was very much feared that he was about to fall a victim to acute tuberculosis. Under the use of stimulants, nutritious diet, and counter-irritation, the child has rapidly improved, and is now gaining flesh and strength.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

RIFLE-SHOT WOUND OF THE WRIST AND ABDOMEN—RECOVERY.

(Under the care of Mr. WEST.)

[Reported by Mr. J. St. S. Wilders, House-Surgeon.]

Sarah Ann B., aged 11 years, was admitted into the Queen's Hospital at 6.15, on the evening of March 28, 1862, for a rifle-shot wound of the abdomen and left arm.

It appeared that she was walking along Bissel-street carrying an infant on her left arm, while some men were on the high ground above, at 650 yards distance, sighting a breech-loading rifle with Enfield grooves. She had nearly reached her own doorstep, when a bullet struck her on the outside of the left wrist, passing through the infant and then through her own body, and was eventually found within her clothes on the opposite side of the body to that on which it had entered. The women who brought the child to the Hospital, found the bullet, which was conical, and weighed an ounce and a-half, just within her stays immediately against the wound on the right side of the thorax.

On admission, the girl was pale, cold, and suffering great pain, but was perfectly sensible.

On removing her clothes the *trajet* of the bullet was found to be as follows:—

It had entered the back of the left arm close to the radial side of the wrist-joint, and passing obliquely through it, had emerged from the joint on its palmar surface, about half an inch from the styloid process of the ulna; it had then passed through the body of the infant, causing its almost instantaneous death, and had re-entered the little nurse, making an oval, jagged wound of the size of half-a-crown, with inverted edges in the abdominal wall; the situation of which was about half-an-inch below the eighth rib, an inch to the left of the sternum, impinging upon the cartilages of the eighth and ninth ribs in its inward course; it then passed across the body, and had made for itself an aperture of exit about the size of a shilling, with smooth everted edges, three and a-half inches from the right nipple, and directly below, and four inches from the apex of the axilla, fracturing the seventh rib at that point. No track of the bullet could be seen or felt beneath the skin. There was very little hæmorrhage from any of the wounds.

Mr. West was sent for, and the patient was ordered to have pulv. opii. gr. j. statim, the dose to be repeated at discretion. Cold-water dressing was applied to the wounds.

March 29.—The poor child has vomited very frequently during the night a fluid of a greenish colour but no blood. The abdomen is very tender to the touch; pulse 120, feeble; countenance very anxious, and expressive of abdominal mischief; the knees are drawn up; the patient continues perfectly sensible, and her entreaties for death are most distressing. The tongue is dry and furred. She passes urine freely.

The opium was ordered to be continued, and hot bags of hops to be kept constantly applied to the abdomen.

The symptoms continued much about the same up to April 1, when the report is as follows:—

Abdomen is less tender to the touch, and there is no tympanitis. The wounds on the wrist and the large wound in the abdominal wall look sloughy, but from the aperture of exit the slough is beginning to separate. There is a profuse discharge from the large aperture in the abdomen of an offensive character. Pulse 120, rather stronger. Tongue still furred but moister. The bowels have acted, and there is no blood in the fæces. The vomiting has quite ceased, but she has a slight cough, and at times her breathing is rather laboured; there is, however, no thoracic dulness or friction sound, and all the respiratory sounds, with the exception that a few mucous râles are to be heard, are perfectly healthy.

Up to this time the patient has been sucking ice and drinking iced milk, which seems very grateful to her.

She was ordered to have in addition an anodyne draught consisting of chloric ether, conium, and syrup of poppies every three hours.

The pills to be taken occasionally, and a flannel bandage to be applied round the thorax. The arm to be kept upon a straight splint.

April 6.—The child is very much better, the slough has quite separated from the large wound in the abdominal wall, and from those on the wrist, and healthy granulations are filling those apertures. The smaller wound on the chest has quite healed. Breathes with ease, and cough has almost left her. No abdominal pain. Pulse 100, much stronger.

April 11.—The wound on the inner side of the wrist is quite healed, and all the others are going on well. Ordered to have a chop.

13th.—The wound on the outer side of the wrist is closed, and no bone or osseous debris has come away either from the wrist or the wound on the outer side of the chest.

20th.—The patient is now walking about the ward with three out of the four wounds perfectly closed and sound; she is gaining flesh rapidly, and her appetite is excellent.

May 14th.—The girl is now perfectly restored to health—all her wounds are healed; she is quite free from pain, can use her wrist freely, and she runs about the ward and garden without feeling any difficulty of breathing.

Remarks.—The principal point of interest in this case is the recovery of the child from injuries of so great magnitude. The absence of track beneath the skin, the fracture of the rib, and the well-known fact that the conical bullets of the present day rarely cause injuries to the superficial structures alone, show that in all probability the missile penetrated parts playing a most important part in the vital economy. What parts those were can only be surmised, but the direction of the wound points to an injury of the liver. It is also worthy of remark that notwithstanding the injury to the bones of the wrist, and to the seventh rib, no death and consequent separation of bone should have taken place. On the admission of the child her condition seemed hopeless; but this case well illustrates how much the "*vis medicatrix naturæ*" can accomplish.

The Sexes in Scotland.—It appears from the Scottish Census, just published, that of the 3,062,294 persons in Scotland on April 8, 1861, only 1,449,848 were males, while 1,612,446 were females, being an excess of 162,598 females, or in the proportion of 111·2 females for every 100 males. As compared with England the proportion of females in Scotland is disproportionally great.

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Medical Times and Gazette.

SATURDAY, JULY 5.

THE QUEEN'S COLLEGES IN IRELAND.

In our last Number we published a letter from a Medical student of Queen's College, Cork, in reply to an article which appeared a short time since in the *Medical Times and Gazette*, on the subject of the Medical education given in the Queen's Colleges in Ireland.

On the principle of *Audi alteram partem*, to which he appealed, we at once printed his letter without note or comment; but as he has formally arraigned the accuracy of our statements, we think it our duty as journalists to satisfy our readers that we have not lightly ventured on any statement in connexion with this subject which we have submitted to public notice.

The evidence we are about to appeal to in support of our statements cannot be gainsayed or denied, being derived either from sworn testimony taken by the Queen's College Commission or from the Records of Parliament.

Firstly. The statement that "the Queen's University has turned out only ninety-eight Doctors of Medicine since its foundation," rests on the authority of Parliamentary returns, and is admitted to be true by our correspondent. As to the inquiry suggested by him in explanation of this significant fact, we pass it by as idle and beside the question.

Secondly. Our correspondent represents us saying "that the Colleges were not wanted; that there were sufficient Medical schools without them." Notwithstanding the inverted commas, we beg to say no such statement is to be found in our article, in the whole course of which we carefully avoided the general question of the Queen's Colleges, and referred merely to the Medical department. There can be no question that there were sufficient Medical schools without them, and, indeed, more than sufficient. Our correspondent does not venture on any better reason for their foundation than *cheapness*, the sunken rock which we have often pointed out in the hope that the Profession of Medicine in these countries may not some day strike and founder upon it.

Thirdly. Our next statement, according to our correspondent, is, "That a poor country farmer has only to send his son to a Queen's College, and he will get a State endowment of £20 a-year, will only have to pay £7 or £8 per annum College fees, and can live for 1s. a-day, and lodge for 2s. 6d. a-week." We are willing to believe, for the sake of our correspondent's character, that he is an uninstructed and inexperienced writer, and are, therefore, content for the present with reminding him that inverted commas are intended to enclose a quotation, not a misrepresentation. If he refers to our article he will see that we contemplated some cases of failure, and drew a melancholy picture of a supposed case; we did not say that every farmer's son withdrawn from the plough obtained a scholarship, but that many were drawn to their ruin by snapping at a glittering and delusive bait, and that those who did succeed were State-pensioners imported as supernumeraries into an already overstocked Profession.

In addition to the £20 scholarship which some might obtain, we stated that the Professors' fees which they would have to pay, were £7 or £8 a-year. For this we refer our correspondent to page 377 of the Commission, where it will be found that a scholar's fees for the four years required for a degree of M.D., amount exactly to £29, or an average of £7 5s. a-year.

On the question of board and lodging, our correspondent concludes his letter with a challenge in the form of a post-script, which we quote at length:—

"P.S.—Would you kindly let me know against next Session where one can live respectably, and board into the bargain, for 3s. 6d. a-week, as you would thus enable me to pocket a clear 16s. 6d. a-week?"

On referring to our statement, we find we said nothing whatever about respectability,—indeed, nothing was further from our thoughts; nor did we assign so small a sum as 3s. 6d. a-week as the cost of board and lodging, which our correspondent seems to have inferred in consequence of an absurd arithmetical blunder. We said—1s. *per diem* for board, and 2s. 6d. a-week for lodging, making a total of 9s. 6d. This would enable our correspondent to pocket, as he calls it, not 16s. 6d., but only half-a-guinea a-week,—that is, if he ventured on an experiment which we are far from recommending, seeing that he attaches some importance to "respectability."

However, to justify our statement, and answer his inquiry, we refer him to the following official evidence sworn to by the Rev. Dr. Henry, President of Queen's College, Belfast (Queen's College Commission Questions 1262, 1263):—

"1262. The expense of boarding for 25 weeks, of which the two Terms consist, at 7s. a-week, would be £8 15s.; for lodging, at 5s. a-week, would be £6 5s.; making the expense of board and lodging for the two Terms £15. I have also learned that in some cases two students lodge together, have a sitting-room and bed-room, and that they get this accommodation for 6s. a-week.

"1263. Chairman: Is that the average expense of lodging in first-class houses? I should say it is the average of the class of houses between the lowest and the highest."

Fourthly and lastly. Our correspondent represents us as saying "that a complete Medical and Surgical education cannot be obtained at these Colleges; and that there are no Hospitals or Clinical Lectures." Again we must protest against the inverted commas, we did not say there were no Hospitals, but that Hospital accommodation was scanty and insufficient in the towns in which the Colleges were built, and that this was a matter of mere necessity. To prove this statement we might fill several columns of this Journal with extracts from evidence given before the Commission. We shall content ourselves with one quotation, which from its nature may be considered as embodying the views of the Medical Professors, gentlemen for whose position and attainments we entertain the highest respect.

The following extract is taken from Document xxx. p. 339, which is entitled "A Letter addressed to the Chief Secretary for Ireland by the three Presidents of the Queen's Colleges, relative to the defects of the Hospital instruction at the Queen's Colleges, and the means of remedying them":—

"It thus appears that the Medical students of the three Colleges are not provided with sufficient means of Hospital instruction, and that in Belfast the number of patients in the General Hospital is so much below the required average as to render the withdrawal of recognition from that Hospital extremely likely, in case its actual condition were made known to any of the Licensing Bodies. The result of this withdrawal would be the immediate annihilation of the Medical School, and the abstraction from the College of nearly one-half of its students. As the only remedy for this common evil, we would suggest that the Workhouse

Hospitals in Belfast, Cork, and Galway should be opened for the purpose of instruction to the Medical Students of the respective Colleges."

To this suggestion to convert Workhouses, as a last resort, into Hospitals for clinical instruction, we shall just add in conclusion one quotation from the evidence of Dr. Fleming, Professor of Materia Medica at Queen's College, Cork :—

"Ever since this College opened I have never heard but one opinion from the students, namely, that the clinical instruction is uncertain and defective, so much so that every year, on this account alone, many students leave our College to receive elsewhere this essential part of their education."

JUSTICE AT HOME.

Biological science owes much to Continental workers. This is a fact so patent and acknowledged that there is no danger of forgetting it. In Histology, the labours of Schleiden and Schwann, of Henle, Kölliker, and others ; in Pathology, those of Müller, Rokitansky, Virchow, Frerichs, and many more, are neither likely to be underrated nor ignored. Vast mines for investigation have been opened and partially explored by them, and the British school, which has profited so much by their labours, would be to the last degree ungrateful did it not on all occasions award them the meed of praise to which they are most justly entitled. It must, however, be remembered that this feeling of admiration for Continental research may be entertained to the exclusion of a due regard for the efforts of our own countrymen ; and, on the other hand, it is to be regretted that the latter do not always receive from observers in other countries that acknowledgment which we are generally the first to pay to foreign science. Moreover, as certain wines are said to be improved by a voyage, so our physiologists seem to think that a like travel is necessary to ripen the scientific products of home growth. There are not wanting instances in which the observations of our countrymen have been comparatively ignored amongst ourselves until they have been adopted or plagiarized by foreign authors, who have too frequently returned them, unlike the wine, deteriorated by their transit. With an asserted theoretical bias towards everything that is English, we practically are too much in the habit of allowing ourselves to be dazzled by the enchantment which distance lends, and of accepting a foreign standard of excellence as the only one, not only in the departments of fashion and art, but in those of thought and observation.

These remarks have been suggested by some observations which lately fell from Professor Gulliver, in his first lecture delivered at the College of Surgeons. They are applicable to various branches and subjects in Medicine, but in a limited space we can only point out one or two instances of the neglect of which we complain. No one can entertain a higher respect than ourselves for Professor Kölliker, whether as an original observer or as the author of the best manual of Human Histology extant. It is because his book is so valuable, and is now in the hands of every English worker, that we single it out for criticism. The literature of anatomical research is professed to be given by the author, and lists are accordingly appended under each subject. If there be one department of investigation which pre-eminently belongs to the British School of Physiology it is the structure and constitution of the blood. But, on turning to its literature as given by the German Professor, we find no mention of the labours of Hewson, Hunter, Hodgkin, Lister, and Gulliver. The omission of the names of Gulliver and Hewson in connexion with the blood is simply unpardonable in a book expressly intended for English students. The name of Quekett nowhere occurs in the chapter on the intimate anatomy of bone, although the late lamented histologist's contributions to this subject formed the very ground on which he sought and obtained admission into the Royal Society. These things are a blot on Professor Kölliker's otherwise admirable book. Again, how studiously do foreign syphilographers ignore the observations of English Practitioners. We hardly recollect an instance in which Mr. Henry Lee's well-known labours have been candidly recognised by Continental writers. Look, again, at the preference evinced by our own Medical authorities for foreign opinions. It is well known that there are men in leading practice amongst us who avoid consultations with their own colleagues and countrymen, but are ready enough to recommend a patient to consult any foreign celebrity. Is it within the limits of probability that, were the foremost man in the Profession at Paris to be suffering from eye disease, the Surgeon attending him would decide on no one of his countrymen whose co-operation might be worth obtaining, and would advise the patient to consult Mr. Bowman?—or in the case of a patient with stone in the bladder, would a French Surgeon assure him that the only person who could perform lithotrity was Mr. Coulson ? Have we no English Practitioners as fitted to give an opinion or to operate in their respective departments as Graefe or Civiale ? Or, again, would a Physician of high standing in a foreign Court—a countryman of Kramer's—recommend all his patients who may require an aurist to lose no time in consulting Mr. Toynbee ? There is a story current that a celebrated physiologist with a foreign name, on the occasion of applying to a British Medical Corporation for permission to lecture in their theatre, stated that although he feared the circumstance might diminish his chance of obtaining what he wished, he nevertheless was in honesty bound to confess himself an Englishman. An opinion has long been current amongst the fashionable vulgar that the French are better anatomists, physiologists, and operators than ourselves. This opinion, utterly false as it is, is endorsed and accredited by the line of conduct against which we remonstrate. Men in high positions may not suffer much in consequence of their blind homage to foreign excellence. But such proceedings tend to prejudice the Profession in their own eyes and in the eyes of the public. They do great injustice to men of high acquirements and scientific achievement, and are sufficient to crush all ambition to excel either in research or practice amongst the younger members of our body.

THE WEEK.

THE REPORT OF THE COMMITTEE ON SUSPENDED ANIMATION.

As previously announced, a special meeting of the Medico-Chirurgical Society was held on Tuesday last, to receive the Report of the Committee on Suspended Animation. A full report of this meeting will appear in the next Number of this Journal. As this is the first Committee appointed in accordance with the recent resolution, and as the subject has excited considerable interest on several previous occasions when papers were read on other subjects, the meeting was very large, and did not adjourn till nearly eleven o'clock. The Committee consisted of Dr. C. J. B. Williams, Dr. Brown-Séquard, Dr. Kirkes, Dr. Hyde Salter, Dr. Sanderson, Dr. Harley, and Mr. Savory. Although it is only six months ago, very many experiments have been performed ; and the report is very elaborate, and will no doubt justify the Society in continuing the plan of appointing such Committees. The experiments were conducted under three divisions :—1. Simple apnœa, the mere stoppage of breathing ; 2. Apnœa from drowning ; and, 3. Resuscitation of the apparently drowned. Apnœa (simple) was produced by inserting a glass tube in the trachea of dogs and corking it, proper precaution being taken that the exclusion of air was absolute,—the details of which it is not needful to give here. It was found that an animal thus deprived of air would recover after four minutes ; but if even fifteen seconds elapse beyond this time, the animal dies. Several interesting experiments showing the force of the inspiratory efforts were also detailed. In the apnœa from drowning a remarkable difference was found. A dog

submerged in water one minute and a-half, died. That this was not due to mere deprivation of air, was shown by the following experiments:—Two dogs were submerged, one in the usual manner, and another in which the same experiment was performed as in the previous series—a glass tube being inserted in the trachea, and the tube corked at the time of submersion. The first dog died after being submerged two minutes, but the other dog recovered after being under water four. Post-mortem examination showed the cause of this difference. In the simple apnœa the lungs were found free from blood, and of course free from water; whilst in the animal drowned, the bronchial tube was filled with froth, water, and much blood, and the lungs were "congested in the highest degree." Dr. C. J. B. Williams, who, after the reading of the paper, gave a *résumé* of the report, said that the bloodless condition of the lungs in apnœa was a fact quite new to him. It was clear that this condition of the respiratory organs in apnœa from drowning explained the comparative want of success, and probably it was not merely the mechanical obstruction by the mucus and froth, and by the œdematous condition of the lungs, but also the altered condition of the blood, the vessels of the lung being ruptured and the corpuscles broken up by osmosis. Lastly, the various methods of performing artificial respiration were considered, and the result of the experiments on the human subject in the dead-house was, that Dr. Silvester's method displaced much more air than either that of the late Dr. Marshall Hall or the ordinary method of pressure on the chest. The adoption of this method was, therefore, recommended by the Committee. They had no opportunity, however, of trying any of these methods in any case of drowning in the human subject. The Committee did not recommend the use of any instrument for inflation of the lungs, and, except the use of hot water, alternate with cold, any accessory means, as galvanism, the actual cautery, or venesection. They did not recommend the hot-bath. A discussion followed, in which Dr. C. J. B. Williams, Dr. Edward Smith, Dr. Marcet, and Mr. Charles Hunter took part. Dr. Smith did not think that the Committee had succeeded in applying the results of the experiments to what he conceived was their main object,—viz., the resuscitation of those apparently drowned. He thought it would generally be found that such Committees would ascertain facts, but that the application of them must be left to individuals. Dr. Marcet did not think that they had done wisely in not recommending instruments for inflation of the lungs. The objection that they were not to be had when ready was, he thought, dwelt too much on. It was as easy to have such an instrument ready as it was to have ready instruments for amputation and trephining, and in cases of need in requiring these latter operations there was practically little difficulty. Mr. Charles Hunter, who had made numerous experiments with the late Dr. Marshall Hall, said that the results he then obtained were much more favourable, and that especially he had found that much more air was displaced by Dr. Marshall Hall's method than would appear to have been the case in the experiments just detailed. He thought, too, that the advantage of turning the body on the face was a very important one, affording an opportunity for fluids to run from the mouth. This, he considered, was confirmed by the condition of the respiratory organs after drowning. He had seen fluids drip from the mouth after half-an-hour's trial of the Marshall Hall method.

ENGLISH SACRIFICES IN CENTRAL AFRICA.

It is with intense regret that we read of the death of Bishop Mackenzie, the chief of the Church of England Mission to Central Africa by the route of the Zambezi River. We would not say a word to damp the energy of missionaries, and of those that send them, yet such men as Bishop Mackenzie and his coadjutors could find far too much to do at home, and are far too valuable to be wasted in a combat with fever and unwholesome food. It is of no use to send missionaries where they cannot live. In his last letter, dated Magomero, 15 degrees south of the equator, November 4, 1861, the Bishop says:—"We have had some illness amongst us. Proctor was laid by for some weeks after we got here, and now Waller has been prostrated by fever for six or seven weeks, not dangerously ill, but useless and uncomfortable. He is now on the mend, but has many relapses. Scudamore and I have been the best in health certainly. I have had least illness of all since we left Cape Town. The fever is not half so alarming as people fancied at Cape Town. . . As far as my experience goes it is not so bad as the remedies administered. We take Livingstone's prescription—but not the quantity he named—about 18 grains instead of 28 (I think it was)." It appears from the full accounts which are given in the *Guardian* of July 2, that the Bishop set off on January 3, with the Rev. Mr. Burrup, to go down the River Shire to meet Dr. Livingstone and two ladies, for whose presence he was anxious, as he hoped that they would be able to effect a reformation amongst the native women in certain important particulars. They were upset, lost their medicines, and found their way to an island in the Shire River, on January 8. *They had diarrhœa at starting*, and though they got rid of this, were soon attacked with low fever. The Bishop, after a few days, became delirious, and was attacked with hæmorrhage from the nose and mouth, which proved fatal on the 21st.; the hæmorrhage having been brought on afresh in consequence of the native chief turning the dying man out of his hut, so that the Bishop, like his Divine Master, "had not where to lay his head." The Rev. Mr. Burrup buried his superior, and then made his way homeward, with the greatest difficulty, through the "Elephant Marsh." "For the first day or two after his return," writes the Rev. Mr. Proctor, "we had great hopes that he would recover strength; but he again began to suffer from diarrhœa, which, from our inability to procure proper food and stimulants, soon increased upon him. *The native corn on which we are now living* rather seems to produce and aggravate the disease, from which we have all suffered more or less, and some of us are suffering at the present time." The poor man got rapidly worse, and on February 22, continues Mr. Proctor, "he became speechless, and Dickenson (*himself in a very weak state from a recent attack of fever*) having pronounced that he was sinking rapidly, I read the Commendatory Prayer." Death soon followed. It is perfectly certain that the very way to extinguish missionary zeal will be to sacrifice the best men by sending out ill-organised expeditions, and leading delicate, well-nurtured Englishmen, whose very body and mental organization are the result of abundant diet continued for generations, into "Elephant Marshes," where life is only preserved by Dr. Livingstone's heroic doses of quinine and jalap, and where, instead of such food as an English stomach requires, the miserable "native corn" fills and poisons the hungry stomach. What we desire to know is this:—We have seen that out of the individual missionaries at Magomero, the Bishop, Proctor, Waller, Scudamore, Burrup, and Dickenson are named as having been ill of diarrhœa, or fever, or both, before the Bishop began his fatal journey. How, then, can we reconcile these sad facts with the statement that the mission "under the direction of Dr. Livingstone settled down in an admirable station high up the river, where the country is an elevated plateau, where the climate is *tolerably salubrious*, and where a dense population is immediately available for missionary work?" Elephant Marsh! Good heavens, what a vista of deep swamp, rotting vegetation, flies, vermin, stinks, agues, and dysentery do the words call up! And delicate English men and women pining in such a place on goat's flesh, beans, and maize, without other food or stimulants. Some explanation is demanded. It seems pretty certain that for others to go will be suicide rather than martyrdom.

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THE OBSTETRICAL SOCIETY.

The Obstetrical Society, like the Medico-Chirurgical, has just concluded a Session of unusual success by one of the most interesting and practical discussions of the season. The subject of the Paper read was the relative merits of turning and of the forceps as substitutes for craniotomy, and the author was Dr. M'Clintock, one of the few Professors of Midwifery to whom the Society has granted the title of Honorary Fellow. A glance at the Report, which we hope to publish next week, will show how thoroughly practical are the discussions at this Society, and how surely the preservation of life follows the thorough exploration of the higher points of Obstetric Practice. Flourishing as the Society is, we hope that the Secretaries will not be content till they see the names of all the General Practitioners in London enrolled on its list of members.

THE MEDICAL DEPARTMENT OF THE FEDERAL ARMY.

A Bill providing forty additional Surgeons and one hundred and twenty Assistant-Surgeons was passed in Congress on June 11. If we are to believe the speeches of certain Members on the occasion, the Hospitals at Scutari in their worst phase, and the Regimental Hospitals during the first Crimean winter, must have been perfect Elysia compared with the Camp Hospitals after the recent battles. In reading the following, allowance is, of course, to be made for the tone of exaggeration which at present characterises everything Transatlantic :—

"Mr. Foster said that there had been very great mismanagement in the appointment of Army Surgeons. Many of the Surgeons were utterly unfit for their duty. At the battle of Winchester many wounded soldiers lay for eight or nine days without having their wounds dressed, and some were buried in the very clothes they were wounded in. If the Committee on the Conduct of the War would examine into the matter, they would find that not all the cruelties were perpetrated by the rebels. There were men of our army who had had their legs amputated, and who were then laid on the floor, and told to get up and go out by the Surgeons, and when the poor men said they could not go because they had no legs to walk with, such men had been kicked by the Surgeons or by men connected with what is called the 'Medical Department of the Army.' Such things had occurred after the battle of Winchester. There were at least 15,000 men in the Hospitals now who ought to be discharged. Men were sent to the Hospitals so carelessly that not even their names were sent with them, and such men have died and been buried as 'unknown,' leaving their families to suffer years of suspense in regard to their fate."

THE HOUSE OF CHARITY.

The "House of Charity," a temporary house for respectable persons in distress, is an Institution which deserves to be better known and more extensively patronised. It appears destined to relieve what we may call miscellaneous cases of acute distress, such as no special Institution is adapted to relieve, with the exception of the Workhouse. Widows, reduced by the death of their husbands to seek employment; wives deserted by husbands, similarly forced to return to, or for the first time to take to service; young girls, thrown out of situations by sickness, misfortune, or trifling faults, or who have come up to London with the mistaken notion that suitable places were to be had for the asking; the needlewoman who hopes to regain, by rest or in easy employment, her health, undermined by long hours of sedentary toil; out-patients at Hospitals, for whom medicine is of little avail unless they can have that diet which loss of work denies to them; in-patients, discharged ere quite recovered, or without any money, home, or friends; emigrants, while converting their household effects into money, and preparing for embarkation,—are the objects of the charity. As it was forcibly observed to us by one of the Committee, whilst thieves and prostitutes excite the most romantic solicitude, and refuges are on all sides established for the "fallen," it is but right that some portion of the energy of the benevolent should be expended on those who are trying to stand upright. The "House of Charity" is now removed to the house, in Soho-square, lately occupied by the Metropolitan Board of Works, and the foundation-stone of a new chapel has been laid by Mrs. W. E. Gladstone. Amongst the active members of the Committee are Mr. R. Brett, M.R.C.S., Dr. H. Monro, and Dr. J. W. Ogle.

THE CONTEST FOR THE CORONERSHIP OF MIDDLESEX.

This is becoming fast and furious, and garnished with the personalities which usually diversify such contests ere they close. An offer was made to Dr. Lankester to withdraw from the contest. There is no doubt on this point. But it was not made *officially* by either of the other candidates, nor can it be traced to them. Meanwhile the large number of votes promised to Dr. Lankester renders his election a moral certainty if his friends do but exert themselves on the polling-days to realise all the promises that have been made. Medical men should attend the nomination on Friday, at eleven, at Park-crescent, Portland-place, and should bring their friends to the poll on Monday morning by eight o'clock. Then their usual day's work will not be interrupted. It will be of no use to postpone their exertions till three o'clock. It ought to be borne in mind that Dr. Lankester's opponents are the acutest of attorneys, who have made electioneering a profession. For the Western District the nomination will be at the Town-hall, Brentford, on Friday, the 11th, at noon.

ACTION FOR MALPRAXIS.

On Thursday, June 26, in the Court of Exchequer, an action was brought by a boy, son of a tailor at Barnet, against Mr. Godson, F.R.C.S., of the same place, for improperly treating him for the fracture of his arm, whereby serious injuries had followed.

"The little boy stated that as he was kneeling down to tie his shoe, another boy leant over him, pressed him down, and hurt his elbow. The defendant, it appears, was called in, and, after making an examination, arrived at the conclusion that there was a fracture, and bandaged on splints to the forearm. According to the evidence of the father and mother, the arm was not examined after it had been bandaged for some days, and upon one occasion, when the splints were taken off, there were wounds seen of a bad nature and offensive smell, and the defendant or his assistant had dressed them several times, and eventually the boy was taken, by the defendant's advice, to St. George's Hospital, where he remained for a considerable time.

"The boy bared his left arm in Court, at the request of one of the jurors, and it appeared that the muscles of the cushion of the forearm had withered, and no control could be exercised over the action of the hand.

"The complaint against the defendant was, that the arm had been so tightly bandaged as to bring about the injuries. According to the evidence, the boy appears to have suffered no pain.

"Mr Tatum, of St. George's Hospital, stated that when he examined the plaintiff he had a sloughing ulcer extending some way down the fore-part of the left arm, but the boy then appeared in tolerable health, although a little pulled down and somewhat out of condition. The elbow-joint was movable, but nothing could then be done to alter the position of the arm. Tight bandaging might have produced sloughing of the arm, and other causes might have produced the same effect. He saw nothing to lead him to think that there had been any neglect on the part of the Medical man—there had evidently been no tight bandaging. The sore place had come from a rupture of the skin, which was sometimes inevitable, and if any scrofula existed it would find its way to such a wound. The boy, after leaving the Hospital, was brought again by his father, when the witness saw that the boy's hand was inflamed, and the ends of his fingers covered with blisters, and that confirmed an opinion which the witness had previously entertained, that there was a want of power

about the boy, and that he required much nourishing diet. The absence of pain was the strongest indication that there had been no great pressure.

"Mr. Chapman, a Surgeon, said that he had seen the boy yesterday, and found a fracture of the lower part of the upper arm, with considerable thickening in front. The fracture had gone across both condyles, separating them from the shaft. If tight pressure had been applied to the arm it might have caused the wounds complained of, and blackness of the fingers would be a probable result; but if there had been great pressure there must have been great pain, as well as a swelling of the hand and arm.

"Dr. Jones stated that, having heard the evidence, he should say that the present condition of the arm resulted from pressure; blackness of the fingers, which had been stated as having taken place, indicated as much.

"In answer to the Lord Chief Baron, this witness stated that there could be no injurious or mischievous pressure without producing considerable pain.

"Mr. Childs, a Surgeon, was next called, and said that he found, upon examining the plaintiff, a fracture of the lower part of the upper arm, with complicated injury to the ulnar nerve. It was difficult to lay down any positive rule in the practice of Surgery; a man must be guided by his experience and judgment. *He would not have adopted the defendant's treatment himself.* He concluded that the ulnar nerve had been injured from the withered state the arm was now in. *He would not have put the arm into splints until after the expiration of twenty-four hours from the time of the accident;* at the same time, he would not condemn the practice. Fractures ought to be attended to daily.

"Upon cross-examination, the witness stated that the consequences of the accident followed the injury to the ulnar nerve. The fracture had been properly treated by the defendant, but upon the complications of the case he could form no opinion.

"At the conclusion of the plaintiff's case, the jury consulted for a few moments, and said that, although they felt great compassion for the child, they could not find that the injuries he had sustained had arisen from any neglect or want of Medical skill on the part of the defendant.

"Mr. Seymour said that, in the face of such an opinion, he should not be acting fairly towards the Court if he persevered any further, and submitted to a nonsuit. He had done all he could for his client.

"Mr. Hawkins stated that there were many eminent Medical men in Court on behalf of the defendant, who were prepared to state that the defendant's treatment of the plaintiff had been all that Medical skill could have done under the circumstances of the case."

It is a pity that this case was brought into Court. The plaintiff's witnesses completely negatived the hypothesis of tight bandaging on which the action was founded. When the witnesses said that the "arm was not examined for some days," if they mean that the splints were not removed, and there was no pain, they justify the defendant.

THE ALLEGED POISONINGS.

Certainly the suspicions which have gathered round Catherine *alias* Constance Wilson, *alias* Taylor, *alias* Turner, constitute a case for forensic and scientific investigation of no ordinary character. It is believed that this woman has killed no less than three persons by poison. Moreover, the evidence adduced against her at the late trial for attempting the life of Mrs. Carnell by sulphuric acid, would assuredly have convinced many juries. On the 27th, she was again brought before the magistrates, charged with having poisoned Mrs. Anne Atkinson. On this occasion, Mr. Chipperfield, the prosecuting barrister, made the following statement:—

"Very little doubt would remain when the whole of the evidence was before the Court that the deceased had come by her death from arsenical poison, and he (Mr. Chipperfield) had no doubt in his own mind by Fowler's mineral solution. The prisoner, he should be able to show, had been six or seven years confidential servant to a Medical gentleman in Lincolnshire, and had an opportunity, therefore, of becoming acquainted with the different poisons and their potency. It was not a little singular that a very short time after her master had made his will in her favour, leaving her property in houses to the amount of £80 a-year, he was seized with sudden and violent illness, and died. Soon after this, the prisoner went to nurse a lady, named Jackson, whom she induced to draw £150 from the bank. Very soon after, Mrs. Jackson died suddenly, and the money was missing. So strong were the suspicions excited in the case, that an inquest was held on the body. From the account of the inquest, then before him, it appeared the prisoner got off, owing to no irritant poison being discovered. In the present case, arsenical poison was discovered in the tissues of the body of Mrs. Atkinson by Mr. Nunneley. Parts of the viscera had been forwarded to London, by order of the Secretary of State, for analysis."

Amongst the points of evidence which tell against the prisoner is the fact that she advised the husband of Mrs. Atkinson not to permit a post-mortem examination. She said, "All Doctors are alike in London. They would open them all. I would not have her cut up, poor thing." Mr. Nairne, the Medical man who attended the deceased in her last illness, and certified that the cause of her death was "choleraic diarrhœa," stated that arsenic administered in small doses would produce the effects under which he found the deceased labouring. He repeated the statement that deceased had told him that she had been taken ill at the Rugby station, on her journey from Kirkby-Lonsdale to London, and had been robbed there. She, however, made no such statement to her husband, who was with her from the Wednesday to the Friday night on which she died. The first information he received to that effect was from the prisoner, who did not tell him until after his wife's death The prisoner, at the time of Mrs. Atkinson's coming to her house, was in great want of money, but she seemed suddenly after the death to have become possessed of a considerable sum, for according to the testimony of the servant, she purchased mourning and a considerable quantity of finery. The deceased had left Kirkby-Lonsdale for London, to make purchases for her business, with more than £100 in her possession.

ROYAL COLLEGE OF SURGEONS ELECTION.

The election of Fellows took place on Thursday afternoon. It commenced at two o'clock, and the voting ceased at half-past four. The numbers were as follows (Messrs. Cock, Adams, and Paget having been elected):—

Mr. Cock	126
Mr. Adams	121
Mr. Paget	116
Mr. Bishop	108
Mr. Lane	48
Mr. Turner	44

In the evening the Fellows dined together at the Albion Tavern, under the able presidency of Mr. F. C. Skey, F.R.S., one of the Vice-Presidents of the College, who was surrounded by some of the most distinguished metropolitan and provincial Fellows, among whom we observed Dr. Wiblin and Dr. Osborn, of Southampton, who brought up and introduced to the notice of the Fellows a very interesting case of elephantiasis of the penis and scrotum, occurring in a labouring man, who it is stated has never been in India, and upon whom he is about to operate; Mr. Elliott, of the Chichester Infirmary; Mr. Delagarde and Mr. James, of Exeter; Mr. Teale and Mr. Smith, of Leeds; Mr. Mayo, of Winchester; Mr. Green, of Bristol; Mr. Chavasse, of Birmingham. Of the metropolitan Fellows, there were the President and Vice-Presidents of the College, Messrs. South, Solly, Fergusson, Holden, Hancock, Harvey, Hodgson, Stone, Toynbee, Wordsworth, etc.

The Empress of Austria has arrived at Kissingen. Her appearance is said to be that of a delicate invalid—pale, with much suffering. She cannot walk without support, and does not seem yet to have been benefited by the baths.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

In my notice of this week I propose to call further attention to some of the objects of interest exhibited by M. Charrière. Among them will be found a great number of urethrotomes, with blades of almost every conceivable shape, cutting both forwards and backwards; the depth of the incision made by some of these is really alarming, and I can hardly fancy that they are frequently employed, even by their inventors. It must require no small amount of hardihood to cut the urethra to the extent indicated by the breadth of the blades of some of the instruments to which I now allude, when the chances of urinary infiltration, and its miserable series of symptoms, are taken into consideration.

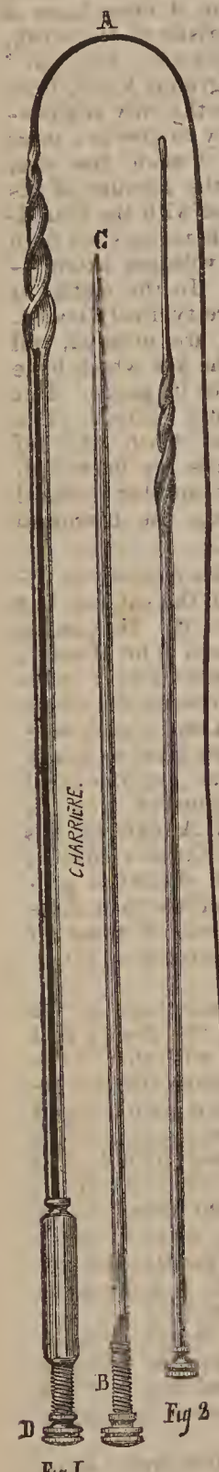


Fig 1 Fig 2

The foregoing remarks naturally lead me to a consideration of the instruments which have been devised for the dilatation of urethral stricture; and I am really struck by the number and almost endless variety of contrivances destined for the cure of this unfortunate ailment. It appears to me that almost every Surgeon possessed of the smallest amount of ingenuity, who has made a special study of the disease in question, has produced an instrument more or less original, to which his name is attached. Of the dilators which have been derived from French sources, none is more simple and effective than that of M. Perrève, described in a book published by that Surgeon in 1847. A slight modification of this instrument has done good service in England, in the hands of Mr. Barnard Holt, within the last few years; and it is now so well known to the Profession, that a description of it is unnecessary.

Fig. 1 represents the spiral dilator of M. Dieulafoy. It consists of a metal tube, slit through its whole length as far as the base of the spiral in order that it may be well cleaned, through which the central rod (B) is introduced. To the extremity of this the small conducting bougie is fixed, and the different parts of the instrument are held together by the screw (D). The bougie is passed into the urethra, and the stricture dilated by the spiral part of the instrument; this, of course, being accomplished by moving it in a rotatory direction. Fig. 2 represents the same instrument made from a single piece of whalebone. This dilator was presented to the French Academy of Medecine in 1861; but M. Nélaton had successfully employed it at the Hôpital des Cliniques nearly two years before.

The "lithotome" is still used in France, and M. Charrière shows a modification of it suggested by M. Nélaton, in which the thickness of the instrument is reduced without interfering with its strength.

M. Charrière, of course, exhibits his specula, with two, three, and even four valves. He has lately added an improvement to these ingenious instruments, by means of which the handles can be turned back. This arrangement renders them much more portable. He also shows the intra-uterine speculum of Professor Jobert de Lamballe, by the help of which it is said that cauterisation of the cavity of any part of the body or neck of the uterus can be effected.

The uteroscope of M. Charrière, which was invented in 1836, and has been recently modified and brought before the notice of the French Academy of Medicine by M. Moulin, is an apparatus likely to be very useful under certain circumstances. It consists of a thin bar of metal attached vertically to the lower part of the circumference of the external end of a speculum, which carries another metallic bar fixed horizontally to it, supporting a piece of wax-candle and a hollow concave mirror pierced at the centre. By varying the position of the horizontal bar in accordance with the length of the piece of candle employed, a satisfactory amount of illumination can always be obtained for the examination of the os uteri and deep parts of the vagina.

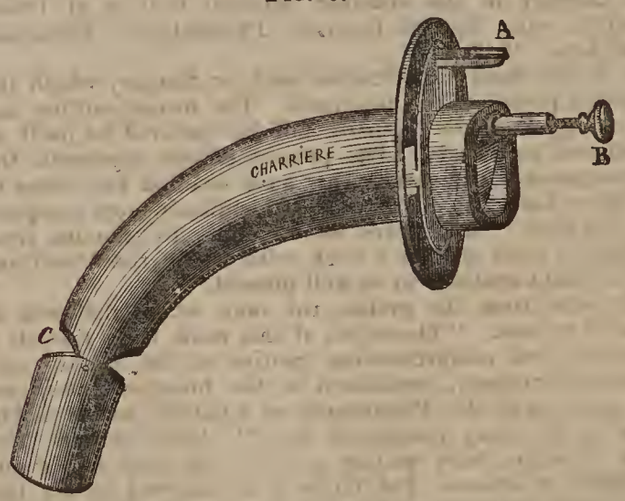
There are also many dilators of the os uteri, made by M. Charrière, among which may be mentioned that of Professor Buch as modified by M. Huguier. Occupying a very small space when the blades are in contact, it is introduced with facility, and the necessary dilatation is obtained by pressing the handles of the instrument together.

He also shows an instrument constructed for the extraction of teeth, and called by M. D'Estauque, its inventor, the "attractif." I have no doubt but that it fully justifies its name, for I should imagine that it not only takes out a tooth, but also a considerable portion of the jaw now and then. It seems singular that so much ingenuity is bestowed on the construction of instruments which act in an automatic manner, as it were; and tend to diminish the free and intelligent action of the operator. It is clear that this contrivance is far inferior to the ordinary forceps when in good hands, and not unlikely to cause considerable injury to the maxillary bones.

Not long ago there was a great dispute between MM. Charrière and Mathieu, as to which of them had been most successful in supplying M. Roger, the great tenor, with an artificial arm. That furnished by the latter maker gave the wearer the power of flexing the forearm, by means of a band of caoutchouc which was fixed over the opposite shoulder. This, it seems, was the invention of a Mr. Van Peetersen, so that neither of the two disputants can claim the merit of the addition, which, however, is not so great after all; since Roger has, I believe, ceased to employ the elastic band to which I have referred.

The tracheotomy tube of M. Charrière is represented in the adjoining Figure (3). The double canula in use some years

Fig. 3.



ago in France, was curved equally throughout its whole length; and in consequence, ulceration, and even more extensive injury to the anterior part of the trachea, not unfrequently ensued. To remedy this, some Surgeons employed canulæ which were cut like a quill pen at their extremity, and M. Morel-Lavallée had a joint added to the internal tube for a Moldavian on whom he operated. These various modifications, and especially that of M. Morel, led M. Charrière to make the tracheotomy canula as follows:—The curve is confined to the upper portion, the lower being almost straight. In order, however, that the inner tube may be easily introduced and removed, the joint (c) is added, and to prevent the short articulated portion from dropping into the windpipe, should it by accident become detached, the extremity of the external tube is furnished with a slightly projecting border throughout its whole circumference, which does not in any way diminish the calibre of the instrument. The tubes are

fixed together by turning the bolt (A); and the screw (B) regulates the position of the valve indicated in the figure.

Among other interesting objects exhibited by the same maker, I may mention Dr. Campbell's obstetric forceps, the blades of which can be elongated, in consequence of their sliding within the handles, and can be kept at any convenient length between the two extremes by means of screws. This arrangement allows of more easy portability, and I should doubt whether it interfered in any way with the strength or practical adaptability of the instrument. M. Charrière also constructs obstetric forceps on the same plan as that employed by him in the manufacture of forceps of smaller size. This "articulation à tenon" (before alluded to) allows blades of any length and shape to be adapted to the same handles; and while it renders a set of instruments very portable, it does not in any way interfere with the regularity and smoothness of their surface, which is as unbroken as that of the forceps ordinarily employed. I am not sure that this arrangement would find favour with Obstetric Practitioners in this country, but I call attention to it on account of its ingenuity.

The "perforator" of M. Blot is also very ingenious. It consists of two superposed blades, shaped somewhat like the ordinary instrument, each of which is sharpened on one side only, and so arranged that when shut the blunt side of one projects over the sharp edge of the other. By pressing a small handle attached to the instrument the blades are separated, and both their cutting edges set free, so that perforation can be easily performed.

The fearful cephalotribe, in the hands of French operators and instrument makers, has been submitted to many modifications of more or less importance; none of them, I imagine, being better than that of M. Depaul. I may add that the temper of the metal employed by M. Charrière in the manufacture of these instruments is excellent.

On account of space, I am unable to draw attention to all the ingenious and well-constructed instruments of M. Charrière, but may state, finally, that a thorough examination of his cases will thoroughly repay the interested visitor.

47, Hans-place, S.W.

REVIEWS.

A System of Surgery: Pathological, Diagnostic, Therapeutic, and Operative. By SAMUEL D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia, etc. Second Edition. Philadelphia: Blanchard and Lea. 1862.

THIS is the most considerable work on Surgery which the American press has yet produced. The former edition has had a large sale in America, and has secured for itself an undisputed popularity. The present edition represents the improvements which three years have enabled Dr. Gross to engraft on his original work, and is manifestly more complete than the other. It behoves us, therefore, to examine from an English point of view a work with which the Americans will no doubt continue to be well pleased.

We learn from the preface the rank which the book is intended to take. "The object of this work is to furnish a systematic and comprehensive treatise on the science and practice of Surgery, considered in the broadest sense, one that shall serve the Practitioner as a faithful and available guide in his daily routine of duty." Other writers, Dr. Gross considers, have written too little on some topics and too much on others. For Gross it is reserved to say the exact thing required on every subject. "My aim has been to embrace the whole domain of Surgery, and to allot to every subject its legitimate claim to notice in the great family of external diseases and accidents." And lest any one should presume to question Dr. Gross's authority, we are informed of the vast extent of his practice, and are referred by the dedication to the "numerous pupils who, during the last quarter of a century, have attended his lectures, and who are now settled in every section of the United States in the honourable pursuit of their profession." "The work should therefore," he says, "be regarded as embodying the results of a large personal, if not of a ripe, experience, of extensive reading, and much reflection; in a word, as exhibiting Surgery as I myself understand it, and as I have for so many years conscientiously taught it." It is thus our good fortune not to be left in doubt as to what is Dr. Gross's opinion of himself; and we are equally clear, after a perusal of his work, as to our own opinion of him. He shows himself to us as a clever and practical Surgeon, who can write down clearly and well the results of his experience on any point with which he is familiar. Consequently, those parts of his work which contain his original observations are good and trustworthy. But Dr. Gross must needs be a philosopher. His ambition, as is usually the case, leads him to aim at success in a line for which he has no qualifications whatever. Consequently, when he attempts to generalise he exhibits himself as a man of small grasp of mind, and of imperfect education; he is needlessly tautological, feebly sentimental, and insufferably prolix. His language also, which is good enough when he is talking plain, practical sense, becomes loaded in his higher flights with a profusion of the most empty vulgarisms, while at the same time it takes leave of exactness altogether. The great characteristic of the work, however, is the facility with which the author has "annexed" materials of various, and sometimes incongruous kinds, from writers of every shade of opinion; while the only acknowledgment that he has thought it necessary to give is a mere statement in the preface, that he has "made free use, wherever this was deemed necessary, of the labours of his contemporaries." To this practice, together with the boundless diffuseness of Dr. Gross's style when he mounts his high horse, is due the great bulk to which the volumes extend—no less than 2200 closely printed pages. In the matter of engravings, too, contributions have been pretty freely levied. Nearly 400, we are told, in the first edition are original, and in the second edition, "a portion" of the 300 which have been added were "expressly engraved" for its pages. But the same fact might have been differently stated. The author might have told us with perfect truth, that of the whole number (1227) nearly two-thirds are borrowed, with scarcely an acknowledgment, except another general statement in the preface, and that among the borrowed engravings are almost all those of importance.

Dr. Gross calls particular attention to his chapter on Inflammation. He has devoted 150 pages to the subject, but fails to throw a single ray of fresh light upon it. He mashes up materials drawn from A. Cooper, Macartney, John Hunter, Hughes, Bennett, Virchow, and many others into a mass which is far from being homogeneous, and presents the whole to us as a statement of his own opinions. A much more successful chapter is that on Snake-bites, which gives us much valuable information, drawn from American experience of those deadly wounds. The subject of gunshot wounds, which has now such a fearful interest for Americans, has received "more than ordinary attention" in the new edition, but yet is scarcely complete. The war will doubtless produce far better instruments for extracting bullets than those of which Dr. Gross gives illustrations. None of those of American origin exceed in efficiency the instrument introduced in the Crimean war.

The author's opinions on syphilis are not those of the majority of modern writers. He objects to the theory that the poison of the soft chancre is not identical with that of the hard, chiefly on the ground of the complication thereby introduced into the question. He also opposes it with a grand piece of *à priori* reasoning, involving almost every possible fallacy; "for I can see no reason, on general pathological principles, why an ulcer which furnishes an infectious virus, as the soft chancre is well known to do, should be capable of inoculating certain tissues and not others; why, in other words, it should be able to reproduce itself locally, and yet not be able to affect, implicate, or contaminate the constitution." He disposes of the belief that the poisons are distinct, by saying that it is "contrary to all reason, science, and analogy." He says that indurated chancre is "nearly always" followed by secondary symptoms, and that he "has repeatedly seen the very worst cases of secondary symptoms succeed to the soft chancre."

Anti-climax is a figure in which Dr. Gross delights. Here is a specimen. He is talking of needless and dangerous operations,—in fact, of manslaughter. "The question may well be asked, When will such silly and unmeaning, or to use the proper expression, criminal procedures cease to disgrace our Profession, and to —— shock our sensibilities." The results of operations are fully and fairly discussed; but we have no sympathy for the wretched sentimentality which would induce Dr. Gross, as he avows, to risk a man's life for the removal of a trifling varicocele, and to let another die rather than make him an artificial anus.

Excision of the bones and joints is disposed of by Dr. Gross in five pages. It is evident, therefore, as Dr. Gross is to give the exact proportionate amount of notice to everything, that the subject is one of far less importance than we have been accustomed to believe. And we find scarcely any difference between the two editions on this point. If we turn to the special excisions we have little more reason to be satisfied. Dr. Gross often leaves us in doubt whether he is speaking from his own experience or merely stating opinions at second-hand; and as it is impossible to follow him over the wide field of literature from which he has culled his materials, we must be content still to remain in doubt. We do not gather, for example, that he has ever excised the knee-joint, or has ever seen the operation; but he leaves us to guess whether he has or not. The treatise on Aneurism is good, but we find rather scanty mention of the brilliant operations of Mott. The section on Fractures and Dislocations has profited to some extent by the appearance of Dr. Hamilton's work on that subject. The apparatus described, and the modes of reduction recommended, are all American in their ingenuity. There is a copious and well illustrated section on Diseases of the Eye; but the description of the ophthalmoscope which precedes it is extremely poor. The laryngoscope is also described, but in such a way that no person could succeed in using it from this description only. Space compels us to take leave of Dr. Gross; and as a great part of what is valuable in his pages exists already in books of our own Surgeons, we regret that we cannot hold out any prospect of the general introduction of the work into our schools. It will always, however, be useful and interesting as a careful compendium of the opinions of our American brethren.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, June 12.

M. TROUSSEAU ON MINERAL WATER SPRAY.

No doubt your readers are aware that, in 1858, M. Sales-Girons recommended the inhalation of mineral waters converted into spray for diseases of the respiratory organs and other complaints. By many Physicians it was denied that the active principles of mineral waters were contained in the spray; and it was asserted that this consisted of nothing but mere aqueous vapour; for as soon as mineral waters were converted into spray, the gases escaped and their solid constituents were precipitated. Others maintained that even if the spray was really superior to ordinary vapour, it could not be of use in diseases of the respiratory organs, which were inaccessible to any but gaseous matters. The question was then as usual taken up by the Academy, and about five months ago M. Poggiale presented a report on it, which was duly read, but its discussion unavoidably postponed, on account of a great pressure of other subjects which demanded precedence. Quite recently the debate on the merits of M. Sales-Girons' method has commenced, and I will to-day give you the opinion of one of our most eminent Physicians, M. Trousseau, on the subject. He considers the method in question a new one, and likely to render real service to the Practitioner; but which has perhaps been too much preconized by its inventor, as well as too greatly deprecated by its adversaries. M. Girons thought that his invention would introduce a radical change into the whole mineral water cure. On the other side it was asserted that he was not the original inventor of this method, but that it had been employed at Lamothe-les-Bains since 1845. That may be; but (says M. Trousseau) which of us knew anything about it previous to M. Girons' writings? Why then should we grudge him the merit of having popularised the pulverisation of medicinal liquids? The perfection of the apparatus employed is of secondary importance; the essential thing is to have imagined and introduced the medication.

The first point under discussion now is, whether the spray really penetrates into the trachea and bronchial tubes? If there is anything surprising, it is that this has been at all questioned. No one doubts that solid particles of lead, carbon, and other substances are, by respiration, introduced into the lungs without any difficulty whatever. M. Archambault has quite recently shown that the men employed in polishing crystals, are prone to severe pulmonary affections, arising from the penetration of the dust into the lungs. M. Demarquay's experiments have, moreover, fully proved that mineral water spray really arrives in the tissue of the lungs; for he has seen pneumonia induced in rabbits by the inhalation of perchloride of iron.

As soon as mineral water spray is expelled from the apparatus, its temperature is rendered similar to that of the surrounding medium. This is of great importance, seeing that the frequent and excessive changes of temperature which occur in watering-places, and which exercise a considerable influence upon the pulverised liquid, may disturb the health of patients who submit to this treatment. Further experience will have to remedy this inconvenience, which is, after all, no fault of the method itself. Respecting its therapeutical use, M. Girons has certainly gone too far in wishing to see it supersede the whole mineral water treatment as now practised. That is an exaggeration, which may be forgiven his enthusiasm as an inventor; but it is at the same time a fetichism to which we cannot submit. No man, however great a genius he may be, can singly aspire to radically modify the whole hydro-thermal regimen, which, although it may in some instances appear odd, is nevertheless justified by the experience of centuries. It is sufficient that patients are cured by the use of the Spas; and we are not allowed to alter the treatment because we are unable to explain its action. A theory of the curative effects of mineral waters is at present impossible. For some years past the opinion has been gaining ground that water is not absorbed by the skin during the bath. This view is not contradicted by the fact that the urine is rendered alkaline by baths of Vichy water; for such is the case after ordinary warm water baths, and even after baths to which nitric acid has been added.

The effects of the ingestion of medicines, as, for instance, ether, chloroform, etc., are not the same as those of their inhalation. In a similar manner, we must expect that the effects should be widely different according as a mineral water is drunk or inhaled, or a bath of it is taken. M. Girons has committed the fault of confounding different methods of treatment. It would be wrong to suppress one method for the benefit of another different from it; but each one should be allowed its special sphere of action. Spray has been praised as a substitute for fumigatory inhalations. This is another exorbitant pretension, which may be understood as emanating from an inventor, but against which M. Trousseau protests in the interests of the new method itself. Spray is a very useful remedy, but only suitable for certain cases, such as affections of the larynx in public speakers, singers, etc. Great caution is, however, necessary in employing it. In one patient, who was too zealous in inhaling spray impregnated with tannin, double pleuro-pneumonia was induced thereby. Such inconveniences and dangers may be easily avoided if the dose of the remedy given is appropriate, and the operation not unduly protracted.

June 25.

OVARIOTOMY IN FRANCE.

The great event of this week is of importance to the English as well as to the French. Yesterday, M. Nélaton communicated to the Academy a case of complete cure of an enormous ovarian cyst by ovariotomy. Perhaps you will be surprised that I should attach so much importance to a circumstance so usual for you; but then ovariotomy in England is an established and acclimatised operation, its partisans being at least as numerous as its adversaries. You count such operations by dozens, while in France we have until now not had a single authenticated successful case of the kind.

The appreciation of this operation on this side of the Channel has passed through very odd phases. Ovariotomy first saw the light in France, for it was l'Aumônier, of Rouen, who introduced the operation. It afterwards emigrated with the Revolution, and was not again heard of until 1856. In that year a great deal of speechifying came off at the Academy on ovarian cysts and their treatment, and when ovariotomy was under discussion, all the Surgical celebrities of the day rose in a body, and stigmatised it as an unjustifiable and abominable operation. This declaration entirely did for ovariotomy here for the next few years, and no one ventured to perform it, or dared even to recommend it. All the Surgical treatises published at and after that period express their abhorrence of this operation, and even M. Nélaton, were he to publish a second edition of his treatise on Surgery, would be obliged to modify certain passages relative to this subject, which he had put in print four or five years ago.

Towards the end of 1860, however, a considerable impression was produced upon the professional mind by the publication of a *Mémoire* by Dr. Jules Worms, in which the author detailed the results obtained by this operation in England, and ventured for the first time in France to plead its cause. He described the class of cases in which it was applicable, and urged its performance as a duty incumbent upon French Surgeons under certain circumstances. From that time public opinion became more favourably disposed towards ovariotomy, and M. Nélaton even took the trouble to go to England (a great deal for a French Surgeon) in order to become acquainted with the operation as performed in the London Hospitals. On his return to this country he narrated the successes which he had witnessed, and openly vindicated the operation as a legitimate one in his lectures at the Hôpital de la Faculté. But a successful case was wanting in order to satisfy us fully as to the justness of the cause, while no doubt an unsuccessful one would have greatly increased the prejudices existing against it until now.

The case to which I have alluded above was a very favourable one. The patient was a young woman, aged 26, who suffered from a very large multilocular cyst, which had once been tapped; and her general health became worse daily. The operation was done on June 17, according to the rules laid down by Mr. Spencer Wells. The adhesions being only very slight, it did not present much difficulty. After the operation brandy was given to the patient, according to English custom; the idea that the excitants of the nervous system were apt to produce inflammation having been given up by us. The patient vomited on the third day after operation, but the application of a blister on the epigastrium proved sufficient to arrest this. She may now be pronounced cured, as she is able to walk about, etc. Ovariotomy, brought over to us from England, may now be said to have become the adopted child of France, and we shall take care that it may do us as much honour as it has done you.

GENERAL CORRESPONDENCE.

CHLOROFORM ACCIDENTS.

Letter from Dr. Francis E. Anstie.

[To the Editor of the Medical Times and Gazette.]

Sir,—The recent occurrence of a death from chloroform at Bath, coming closely as it does upon the heels of other similar accidents, compels me to address you a few words on the subject of chloroform administration. In former years I devoted great attention to this subject, and, as a lecturer on Toxicology, I still retain a strong interest in the question of the safe induction of anæsthesia. When I add that in the years 1854—1860 I administered chloroform more than 3000 times, without once meeting with a fatal accident, it will, I think, be allowed that I have a right to speak with some authority upon the matter.

I am firmly convinced that the risk of accidents from chloroform is enormously increased by the plan of administering the anæsthetic on a simple napkin rather than with such an apparatus as that of Snow, or Weiss, or Clover, in which a more or less complete graduation of the strength of the inspired atmosphere is obtained During the whole course of my experience, at the time when chloroform administration was a thing of daily occurrence with me, I never had the smallest occasion to repent using the inhaler of Snow, or to believe that it was the cause of the least danger to my patient. On one occasion only (when I was much fatigued and probably careless), did I ever see any approach, in my own practice, to a fatal accident when this instrument was used, and even then the mischief was quickly repaired. But I several times experienced the narrowest escape from a fatal catastrophe when trusting to the simple napkin.

In order to avoid the danger of paralysing the heart, it is most necessary to administer a uniformly weak vapour of chloroform. With the apparatus of Snow, and with various modifications of it invented by others, it is possible to secure something like a uniform atmosphere of four per cent. With the apparatus invented by Mr. Clover this can be effected exactly; and it is a pity that the unavoidable size and expense of the latter instrument necessarily prevents its very general use. But with the napkin there is no security for any such regulation, except the sort of rule-of-thumb skill which an operator, after multitudes of experiments, at length acquires. It is idle, therefore, to urge the great success of a skilled operator and a first-rate clinical observer, like Dr. Simpson, with the simple napkin. The question is,—How may a raw provincial Surgeon, or his still more raw assistant, most readily avoid manslaughter, when the somewhat delicate and responsible task of anæsthetizing a patient is put into their inexperienced hands?

On the strength of my former large experience, and of a series of experiments on various mammals, birds, and cold-blooded animals; on the authority, too, of Dr. Snow, and of communications made to me by gentlemen of large experience and of undoubted candour and truthfulness, I declare my earnest conviction that, to the unskilled administrator, the safeguard of an inhaler on some such principle as Snow's is a positive necessity. And I may add, that a heavy responsibility rests upon Hospital Surgeons who, trusting in their own limited experience, and their imperfect acquaintance with the laws of anæsthesia,—with a confident assurance which would be amusing if it were not, in its results, most serious,—deliberately ignore this opinion, which was long ago enunciated by so great an authority as Dr. Snow.

I might have left it, perhaps, to the gentlemen who are at present engaged in "anæsthetic" practice, to comment upon facts which come less within the province of the General Physician. But I cannot allow one victim after another to be offered up, both in this country and abroad, to a senseless prejudice unnoticed; and I feel that my past opportunities of observation lay me under a responsibility which compels me to speak. This must be my apology, Sir, for troubling you.

I am, &c.

Onslow-square. Francis Ed. Anstie.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 24.

Dr. Babington, President, in the Chair.

A Paper, by Mr. S. J. A. Salter, was read on

AMAUROSIS CONSEQUENT ON ACUTE "ABSCESS" OF THE ANTRUM, PRODUCED BY A CARIOUS TOOTH.

The case upon which this paper was based was one of unusual severity, and of exceptional complications. The patient, a young woman, 24 years of age, was attacked with violent toothache in the right upper first molar, which was followed by enormous swelling of the side of the face, and intense pain. The eyeball then became protruded, and she soon after perceived that the eye was blind. Shortly after the establishment of these symptoms, "abscess" of the antrum pointed at the inner and then at the outer canthus, and a large discharge of pus at both orifices followed; these orifices soon closed, and the general symptoms of the part continued unchanged—the swelling of the face, protrusion of the globe, and blindness. This state of things lasted for about three weeks, when the patient was sent to Guy's Hospital, and admitted. At this time the patient exhibited hideous disfigurement from swelling of the face, œdema of the lids, and lividity of the surrounding integument. Upon examining the mouth, it was found that the carious remains of the first upper right molar appeared to be associated with, and to have caused the disease. Together with the outer contiguous carious teeth this was removed, and led by an absorbed opening into the floor of the antrum. The hæmorrhage which followed the operation was discharged partly through the nose and partly through the orifices in the cheek, as well as from the tooth-socket, showing a common association of these openings with the antrum. The condition of the eye constituted the most important symptom, and the most distressing. The sight was utterly gone; the globe prominent and everted. There was general deep-seated inflammation of the fibrous textures of the eye. The pupil was large and rigidly flexed; it did not move co-ordinately with the other under any circumstances. Some abatement of the symptoms followed the extraction of the tooth; but it was soon found that there was a considerable sequestrum of dead bone,

which was removed. The necrosis involved the front part of the floor of the orbit, the upper cheek portion of the superior maxilla, with the infra-orbital foramen, and a large plate of bone from the inner (nasal) wall of the antrum. The removal of the dead bone was followed by the immediate and complete cessation of all inflammatory symptoms; but the eye remained sightless, and the pupil rigidly fixed. About five weeks after the removal of the dead bone, it was noticed that the pupil of the affected eye moved with that of the other, under the influence of light, though vision in it had not returned. The eye was frequently examined at this stage with the ophthalmoscope. All the structures, including the retina, appeared healthy, except the termination of the optic nerve, which was perfectly white and anæmic, while that of the other eye was pink and natural. The author referred to two other cases essentially similar to his own. The first (unpublished) occurred in the practice of Mr. Pollock, of St. George's Hospital. The patient had intense inflammation of the entire maxillary region on one side, caused by a carious tooth. It implicated the whole face and the contents of the orbit, but was not attended by "abscess" of the antrum or necrosis of bone. The inflammation completely ceased on the removal of the tooth, but the sight was permanently lost; the pupil was at first fixed, but afterwards moved with that of the other eye. Another example, closely resembling these, was published by Dr. Brück, in Casper's *Wochenschrift* for 1851. It was, however, more chronic, and the loss of vision was only temporary. The author concluded his paper by suggesting that the serious ophthalmic symptoms depended on the nerves of the eye being involved in a plastic inflammation in their course, external to the skull and before their distribution; that the optic nerve was permanently damaged, as shown by the permanent blindness; that the third nerve was temporarily implicated, as shown by the temporary fixedness of the pupil; and the eversion of the eye from the first seemed to indicate that the sixth nerve was less or not at all involved. Finally, the author left it an open question whether the anæmia of the optic nerve, as displayed by the ophthalmoscope, is to be looked upon as a cause or consequence of its suspended function.

A Paper, by Dr. Goodfellow, was read on

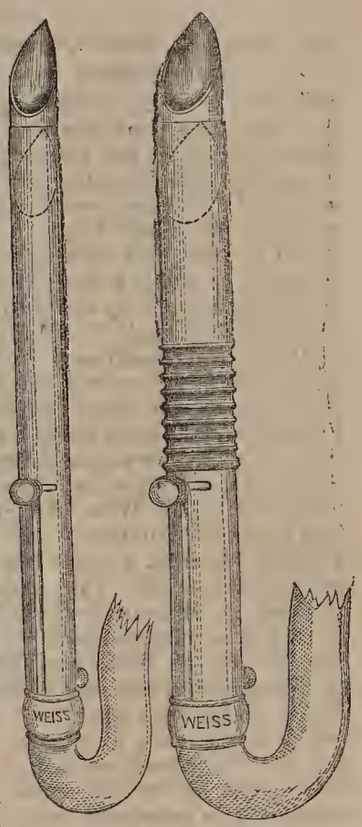
TWO CASES OF EXTENSIVE ARTERIAL OBSTRUCTION FROM SEPARATED CARDIAC VEGETATIONS, FOLLOWED BY GANGRENE AND DEATH.

It was the object of the author simply to bring these two cases before the Society, and not to enter into the general subject of arterial obstruction. The cases spoke for themselves. The extent to which the plugging took place, the number of vessels involved, the morbid changes in and around the coats of the vessels at the seat of obstruction, and the consequences which ensued, appeared to the author to give a peculiar interest to them. In both cases vegetations of considerable size had formed on the mitral valve and surrounding surface of the endocardium. Some of these had become detached, and caused obstruction to the circulation in several of the large arterial trunks; coagula formed around them, and complete occlusion followed. The symptoms were well marked,—namely, pain, intense and agonising, at the seat of obstruction, and coldness and numbness at the distal extremities of the affected limbs, speedily followed by dry gangrene. In the first case the evidences of occlusion were observed about a month before the fatal event, and about seven days prior to the appearance of gangrene. In the second case the interval between the evidence of obstruction and the appearance of dry gangrene was shorter; the pathological changes in and around the walls of the arteries at the seat of obstruction were less extensive. The first case was that of a woman, aged 30, who had had an attack of acute rheumatism twelve years prior to her admission into the Hospital. The heart was damaged during that attack. She, however, was enabled to follow her usual occupation, with occasional interruptions, up to a short period before the appearance of the symptoms denoting obstruction. The second case was that of a girl, aged 17. She had had an attack of acute rheumatism about three years before, complicated with pneumonia, but not with heart affection. Another attack of rheumatism occurred about eighteen months afterwards, which was complicated with endocarditis. From the time of this attack to the period of her seizure with her last fatal illness she suffered considerably from dyspnœa and frequent and severe pain in the præcordial region.

Mr. Spencer Wells gave a description of a

SYPHON-TROCAR FOR OVARIOTOMY AND OTHER PURPOSES.

This instrument consists of a canula, in which, instead of the ordinary solid rod, a hollow tube slides. This tube is sharpened at the end like a tubular needle. The instrument is introduced in the ordinary manner, and the sharp tube is then withdrawn by the thumb. The fluid flows along the canula to an elastic tube, which may be bent to form the long and short branches of a syphon; and the fluid continues to flow so long as the short branch is immersed, while no air can enter. If suction power be wanted, a syringe may be used instead of the simple tube. The addition of a grooved ferrule outside the canula completes the instrument for ovariotomy. The cyst, as it is emptied, is tied on the ferrule to prevent the escape of fluid, and to assist in drawing the cyst outwards. If other cysts require tapping, the sharp tube can be immediately projected and withdrawn. The power of doing this with one hand only is a great convenience, not only in performing ovariotomy, but in tapping collections of fluid through the vagina or rectum.



Instruments of various sizes, made by Messrs. Weiss, were placed on the table of the Society.

Mr. Holmes Coote related a

CASE OF SUDDEN DEATH FROM RUPTURE OF THE LEFT VENTRICLE OF THE HEART.

The author communicated the particulars of a case of rupture of the left ventricle of the heart in an aged female, aged 82, while reclining on a couch. Her habits had been very quiet, and her diet regulated for above forty years. She was quite childish, but fond of all about her, and never gave way to temper. The substance of the heart had undergone general fatty degeneration. After referring to other cases, and to the paper by Dr. Quain, in the *Transactions* of the Society, "On Fatty Degeneration of the Heart," Mr. Coote said that, in his experience such cases were of sufficient rarity to render their collection and publication desirable.

A Paper, by Mr. J. G. French, was read,

ON THE SUBCUTANEOUS TREATMENT OF BOILS AND CARBUNCLES.

The author was desirous of calling attention to the fact, that subcutaneous division of the induration of the cellular membrane arrests the progress of boil and carbuncle at once. It was necessary to make crucial and, when the disease is extensive, even three incisions across the centre, extending completely to the outer boundary of the disease,—free divisions of the centre alone not being sufficient to prevent it from spreading. This plan of treatment was very convenient to the patient, whose time was valuable; and this sudden interruption to the progress of the malady was not followed by its outbreak elsewhere. Three cases were given in illustration, and several Surgeons, to whom the author had suggested this method, had tried it, and fully confirmed the author's experience.

Mr. Partridge said that he had lately had an opportunity of putting in practice the plan recommended by Mr. French, in a case of carbuncle of the neck. The relief was immediate, and recovery rapid.

The Cases of Rabies at Alfort.—The two litters of pups we last week adverted to as being kept at Alfort after the deaths of their mothers from rabies, are both dead. At first taking the milk which was abundantly supplied to them, the pups very soon afterwards entirely refused it, and successively died, exhibiting slight convulsive movements.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 4.

DR. TYLER SMITH, President, in the Chair.

DR. HENRY M. MADGE, related a case of a

LARGE FIBROUS TUMOUR IMPEDING DELIVERY.

Mrs. H., aged 27, primipara, well-formed, in good health, and who had gone her full time, was taken with slight labour pains on the morning of May 21. On making an examination in the after-part of the day, I found the pelvis occupied by a large round tumour, which at first appeared to me to be the child's head. It seemed, however, to be lifting up, as it were, and pushing forwards the posterior wall of the vagina. It was low down, and came lower with every pain, and seemed to fill up every niche in the pelvis. The os uteri could not be found. Next day the tumour was occupying precisely the same position. The pains were still slight, and not frequent; the patient was in her usual health and spirits. With considerable difficulty, and by hooking my finger high up behind the symphysis pubis, I was enabled to reach the os uteri; it was directed forwards, dilated to about the size of a crown-piece, and, as well as I could made out, some part of the breech presented. (Dr. West, Mr. Spencer Wells, and Mr. Newton met me in consultation.) As some parts of the tumour felt soft and yielding, a trocar was introduced, and a small portion of fluid drawn off. Vain attempts had been previously made to push the tumour above the brim of the pelvis. Chloroform having been administered, the opening in the tumour was enlarged. Mr. S. Wells was then enabled to push the tumour upwards, and by means of a blunt hook the buttock was brought down. The child when born had some faint signs of life, but could not be made to breathe. In the early part of the following day the patient seemed to be doing well. A few hours afterwards, by fits and starts, she became very excitable, and could not be persuaded to lie still. Peritonitis set in in the afternoon, and she died on the third day after confinement.

Autopsy, Eighteen Hours after Death.—The peritoneum was universally inflamed, and here and there were large, dark red patches; there was but little effused lymph. Some of the small intestines—a good deal distended with gases—were slightly glued together. The tumour was lying above and in a line with the uterus, nearly reaching by its upper border the epigastrium. It was attached to the posterior aspect of the fundus uteri by a large pedicle, and had thus been allowed to drop into the pelvis at or before the commencement of labour. I removed the uterus and tumour together; the whole weighed four pounds, the tumour forming, perhaps, a third of the weight. Involution of the uterus had not proceeded to any extent. The length from the fundus to the os uteri was eight inches, and the width at the widest part of the body, seven inches and a-half. The lining membrane was reserved for after-examination. External surface studded with small fibrous tumours, the size of walnuts. No old adhesions about the broad ligaments, tubes, or ovaries. Diameter of large tumour six inches and a-half; it consists of fibro-cellular tissue, of a dusky-white colour, with irregular channels containing fluid, enclosed in a capsule of apparently uterine substance and fibres. The fibres of the capsule are so intimately blended with the white tendinous fibres of the interior, that enucleation would have been very difficult, if not impossible. (The preparation was accompanied by a drawing.)

TWIN (?) ABORTION.

Mr. J. C. LANGMORE showed a twin abortion. One fœtus, apparently of between three and four months, which was flattened and had been dead some time, was expelled at the fourth catamenial period, after very slight pain, the placenta being retained and the hæmorrhage inconsiderable. After waiting three hours he consulted Dr. Priestley, who removed the placenta; and on again introducing the finger into the uterus to remove the clots, brought away a second and perfect ovum of about four weeks; it was adherent near the fundus; its members were healthy, and the embryo as seen through the amnion was fresh and vascular. The whole circumstance seemed to raise a strong presumption in favour of superfœtation having occurred. A discussion then took place respecting the question as to the existence of superfœtation in this case, Dr. Priestley believing it to be an instance of the kind, but an opposite opinion being expressed by Dr. Routh and Dr. Madge. Dr. Braxton Hicks also remarked on the presence of certain appearances militating against this view of the case. Finally, it was determined that a committee, consisting of Dr. Harley and Dr. Tanner, should be appointed to report on the specimen at the next meeting.

Dr. AVELING, of Sheffield, exhibited his

"POLYPTRITE,"

for crushing through the necks of uterine polypi. It consists of a hook, a slide, and a screw. In using the instrument, the hook alone is first passed over the neck of the polypus; the slide is then pushed up as far as it can be made to go by the hand; and then, by means of the screw, the operation is completed by forcing the blunt blade of the slide into the concavity of the hook and through the neck of the polypus. Dr. Aveling stated that he and others who had used the polyptrite had found its application easy, rapid, and safe, and in no instance had he heard of the slightest hæmorrhage having followed its employment. The present instrument (which may be had from Messrs. Weiss) he considered a great improvement on two other instruments of a similar kind which he had invented in 1849 and 1857.

A Paper, by Dr. COOPER ROSE, was read on a

NEW DESCRIPTION OF NIPPLE SHIELD, AND ON THE TREATMENT OF SORE NIPPLES.

Frequently failing in the successful application of various mechanical appliances to be found for the protection of sore nipples, the author had had some glass shields made by Messrs. Gilbertson, of Ludgate-hill, from a model which he (Dr. Rose) supplied, based upon the following principles:—1st. That the cylindrical portion should be long enough to ensure a space or vacuum between the end of the nipple when fully drawn out and the end of the shield. 2nd. That the diameter should be sufficiently large to render strangulation of the nipple impossible. 3rd. That the shield should be smooth and unyielding, so as to avoid friction. 4th. That it should be transparent, so that the flow of milk may be observed and the position of the nipple ascertained. 5th. That the substance used for the mouthpiece should as nearly as possible resemble the parent's nipple, so arranged that it cannot collapse and allow the child to suck in air. All these indications were entirely fulfilled by the shields exhibited, and the author stated that he had not met with a single case in which they had failed to answer the purpose for which they were designed. The application of a saturated alcoholic solution of gum benzoin and glycerine in equal proportions in all stages and in every variety of chapped and tender nipples was strongly advocated, together with the use of the shield as long as tenderness existed.

Dr. GRAILY HEWITT communicated the following (for HENRY GRACE, Esq.) case of

DOUBLE UTERUS, WITH SIMULTANEOUS GESTATION.

Mr. Grace was summoned by his father to see a patient in labour for the fourth time, aged 26. Twice previously there had been premature birth; the third child did not live. When first seen by Mr. Grace, labour had been going on for fifteen hours; the waters had escaped. On examination, a hand was found presenting in the vagina, and the os about half dilated; but lying posterior to this, another os was discovered with the head of a child presenting. Septum between the two half an inch thick, and extending up as far as could be reached. The anterior os was dilated, the child turned, and delivery effected. The placenta then followed. The child was dead, and apparently seven months old. The posterior os was next dilated, turning effected, and a live child extracted, which survived only a few hours. The placenta of the second child was expelled without difficulty. Both children were females, equal in development. No flooding or other complication interfered with the perfect recovery of the patient.

Dr. GRAILY HEWITT observed that the case, for the particulars of which the Society was indebted to Mr. Grace, was a very unusual and interesting one. In the elaborate work of Kussmaul, "On the Malformations of the Uterus," which contained a large collection of cases of various kinds, there were only two specifically recorded precisely similar to that observed by the author of the paper. The case of Mr. Grace resembled other cases of double uterus recorded by Kussmaul in respect of the feebleness of the uterine pains said to have been observed. Abortion and premature labour seemed especially liable to occur in cases of double uterus, and this fact was corroborated by the case then before the Society.

MEDICAL NEWS.

UNIVERSITY OF OXFORD.—In a Convocation held on Thursday, the 26th ult., the following Degrees in Medicine were conferred, viz. :—

Doc. Med. Com. Causa.—William Dan. Moore, Trinity College, Dublin.

Bachelors of Medicine.—Henry Heanes Crucknell (Fellow), Oriel College; James Douglas Harrington, Herbert Norman Evans, Exeter College; William Fairlie Clarke, Christ Church.

TRINITY COLLEGE, DUBLIN. — The following Degrees were conferred at the Comitia Æstiva, on July 2, 1862 :—

Bachelors of Medicine.—Isaac Ashe, Stephen Flood, William Stanley Purdon.

Master in Surgery.—Isaac Ashe.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery, at a meeting of the Board on the 2nd inst. :—

Robert Barlow, Dalston, Diploma of Membership dated July 29, 1859; William Hooper Masters, L.S.A., Yeovil, Somerset, November 14, 1860; Morgan John Edwards, L.S.A., Rhondda-valley, Newbridge, Glamorganshire, November 14, 1861; John Lloyd Jones, L.S.A., Treborth, Carnarvonshire, November 14, 1861; John Wise Wilson, L.S.A., Brunswick-place, Barnsbury-road, January 31, 1862; Walter George Sheppard, Dorchester, May 20, 1862; Charles Boyce Kernot, West Cowes, Isle of Wight, May 8, 1862; William Dunderdale, L.S.A., Poulton-le-Fylde, May 8, 1862; Thomas Henry Barnes, Clare, Suffolk, May 6, 1862; Samuel Rutherford, L.S.A., Pulborough, Sussex, April, 23, 1862; James Matthews, Hammersmith, April 24, 1862; Thomas Dry, L.S.A., Salisbury-place, Walworth, April 25, 1862; John Quiller Coneh, Polperro, Cornwall; and Jabez Carter, Bedford, June 12, 1862.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 26, 1862 :—

Theodore Kelsall Hubert, and Henry Ebenezer Richards, St. George's Hospital; James James, Aberayron; William Edward Lee, Bideford, Devon; Hugh Robinson Ripon, Yorkshire; Frederic Edward Gabb, Cheltenham; Henry Orford Rowland, Ipswich; John Robert Brumwell, Burnley.

The following gentlemen also on the same day passed their First Examination :—

George Frederic H. Julius, King's College; Richard Carter, Charing-cross Hospital; John Ring, Middlesex Hospital; John Blount Fry, Sydenham College, Birmingham.

APPOINTMENTS.

ALDERSEY.—William Hugh Aldersey, F.R.C.S. (exam.), and L.M., L.S.A. Lond., has been re-elected Medical Officer for the South-East District of the Buntingford Union, Herts.

ASTON.—Joseph Aston, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Waddingham District of the Caistor Union, Lincolnshire, *vice* William Noble Paterson, L.R.C.S. Edin., L.M. Edin., whose term of office has expired.

BARHAM.—Herbert Frederic Henry Barham, M.R.C.S. Eng., L.S.A. Lond., has been appointed Resident Medical Officer to the Kent County Ophthalmic Hospital, Maidstone, *vice* Alfred Frederick Strafford Clarke, M.D. Univ. St. And., M.R.C.S. Eng., and L.M., L.S.A. Lond., resigned on being placed on full-pay list as Staff Assistant-Surgeon, Army.

BLENKINSOP.—Henry Blenkinsop, F.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the County Prison at Warwick, *vice* Thomas Wheatley Hiron, M.R.C.S. Eng., L.S.A. Lond., resigned.

BURY.—John Carleton Bury, L.K.Q.C.P. Irel., M.R.C.S. Eng., L.M. Dub., has been elected Medical Officer to the Workhouse of the Wisbech Union, Cambridgeshire, *vice* William Herbert Hole, M.R.C.S. Eng., L.S.A. Lond., resigned.

DAVIES.—Albert Davies, M.D. Mar. Coll. Univ. Aberd., M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the newly-established Dispensary, Ely, Cambridgeshire.

GAFFUEY.—Charles Gaffuey, M.R.C.S. Eng., and L.M., L.S.A. Lond., has been re-elected Medical Officer for the North-East District of the Buntingford Union, Herts.

GOODWIN.—John Wycliffe Goodwin, M.D. Cantab., Physician to the Suffolk General Hospital, Bury St. Edmunds, has been nominated one of the Examiners for Medical degrees at the University of Cambridge, for the academical year commencing in October next.

HORTON.—George Edward Horton, M.R.C.S. Eng., has been elected Vaccinator for Dudley, Worcestershire, *vice* William Eagles Johnson, M.R.C.S. Eng., L.S.A. Loud., deceased.

LEEDS.—Thomas Leeds, M.R.C.S. Eng., L.S.A. Lond., has been appointed Resident Medical Officer to the General Hospital and Dispensary for Sick Children, Manchester, *vice* William Lomas, M.R.C.S. Eng., L.S.A. Lond., resigned.

RHODES.—George Winter Rhodes has been elected Medical Officer for the Northern Division, and the Hospital, of the Township of Huddersfield, Yorkshire, *vice* Thomas Robert Tatham, M.R.C.S. Eng., L.S.A. Lond., resigned.

SMITH.—Henry Bennett Smith, M.R.C.S. Eng., L.S.A. Lond., has been re-elected Medical Officer and public Vaccinator for District No. 7 (the parish of Brightling), of the Battle Union, Sussex.

TRUELOVE.—Mr. Joseph Truelove, has been appointed Dispenser to the Suffolk General Hospital, Bury St. Edmunds, *vice* Mr. Joseph Simpson, resigned.

DEATHS.

CARTER.—June 28, at Matlock, Daniel Carter, of No. 79, Packington-street, Islington, M.R.C.S. Eng., L.S.A. Lond., Surgeon R.N. (Sept. 29, 1855), aged 39.

MACCOSH.—June 3, at Paris, Canada West, Robert MacCosh, formerly of Beith, Ayrshire.

MILES.—June 19, at Plymouth, on his arrival from Vera Cruz, Edward Falconer Miles, M.R.C.S. Eng, Assistant-Surgeon (May 17, 1861), of H.M.S. *Donegal*, aged 26.

MOSSE.—June 26, James Robert Mosse, of High-street, Fareham, Hants, M.R.C.S. Eng., L.S.A. Lond.

WOOD.—June 21, at Eccles New-road, Manchester, Thomas Wood, late of Grosvenor-street, Chorlton-on-Medlock, Manchester, M.R.C.S. Eng., L.S.A. London, aged 67.

IT is stated, on the authority of the *Sydney Morning Herald*, that large doses of arsenic act as antidotes to strychnia.

AMONGST those present at the marriage of the Princess Alice were the Physicians in Ordinary to Her Majesty, Sir James Clark, Bart., and Dr. Jenner.

THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.—The name of Thomas Watson, M.D., F.R.S., occurs in the list of those distinguished persons who on Wednesday last received from the University of Oxford the honorary degree of D.C.L.

THE FRENCH ARMY IN MEXICO.—M. Albert Ehrmann, *Médecin-major de première classe*, who sailed with the first French troops in February, has been appointed Medical Director of the Expeditionary Corps, in place of the late M. Ludger Lallemand.

HONOURS CONFERRED ON MEDICAL PRACTITIONERS IN ITALY.—The celebrated Professor Buffalini, of Florence, has been made Grand Officer of the Order of St. Maurice and St. Lazarus; M. Sperino, of Turin, has been made Commander; and M. Rizzoli, of Bologna, Officer of the same Order.

THE MIDDLESEX HOSPITAL.—The Annual Distribution of Prizes will take place in the Board-room of the Hospital, on Friday, July 11, at three o'clock p.m.; Captain the Hon. Francis Maude, R.N., in the chair.

JUNIOR MEDICAL SOCIETY OF LONDON.—At a meeting of this Society, held at Westminster Hospital on the 1st inst., C. Heath, Esq., Vice-President, in the chair, the following pathological specimens were exhibited:—"Fractured Pelvis," by Mr. Gandy (Westminster). "Fibroid Tumour recurrent after Amputation at the Shoulder-joint," by Mr. Hatherly (Westminster). "Mr. Holt's Dilator, and a Specimen of Stricture after Operation," by Mr. Clarke, (Westminster). "Cancer of the Neck, involving the Trachea and Œsophagus," by Mr. Heath. The same gentleman exhibited a boy suffering from spurious anchylosis of the jaw, caused by the contraction on the right side of cicatrices, consequent upon sloughing, after scarlet fever. Dr. Mark B. Tanner read a paper upon "Uterine Hæmorrhages, especially with regard to Placenta Prævia and its treatment." After a lengthy discussion, the meeting was adjourned to October 21.

"ONE who has gone to the Dogs" writes to the *Times* against the practice of cropping dogs' ears,—especially in the case of terriers,—animals whose name indicates their burrowing properties. The overlapping ears protect them from the entrance of sand, earth, and insects; and the exposure of the auricular meatus renders it prone to thickening and deafness, if not to abscess and ulceration. Then, in the case of fighting dogs, the ear protects the most sensitive and vital parts of the throat from the grip of the teeth. Mr. Grantley Berkeley defends the practice of rounding off the ears of foxhounds, to prevent injury from briars whilst they are on their way through covers.

THE TODD MEMORIAL.—The labours of the Sub-Committee entrusted with carrying out the wishes of the subscribers to the Todd Memorial, have now terminated. In the vestibule of King's College Hospital is erected a full-length marble statue of Dr. Todd, by Mr. Noble. The ceremony of uncovering the statue took place at a meeting convened for that purpose on Thursday, July 3. In addition there has been established an annual prize for Clinical Medicine which is to bear the name of the Todd Prize. It is to consist of a large bronze medal, by Wyon, bearing a profile of Dr. Todd on the obverse and the College arms on the reverse,

with suitable inscriptions; together with a prize of books of the value of £3 3s.

THE CONTENTS OF THE STOMACH OF AN OSTRICH.—A fine female ostrich, one of the ornaments of the public park at Lyons, having been killed, the second stomach was found on examination to contain an enormous quantity of the pebbles which are necessary for the digestion of these animals, and which were estimated at between four and five pounds weight. Besides these, this stomach contained an immense number of other foreign bodies, especially such as had had brilliant surfaces, and which had now become more or less changed according to the length of their sojourn in the organ. There were three tobacco-pipes, perfectly intact, a knife with a copper handle two decimètres long, and twenty-five brass buttons belonging to different corps of infantry. The examination of these buttons, more or less worn away, enabled the relative periods of the sojourn of the different infantry regiments at Lyon to be specified. Moreover, there were found a half-franc piece, quite intact, thirty-two sou-pieces, having the effigies more or less effaced, fifty other pieces of copper, worn away to mere spangles of a triangular form, the remains of watch-chains, various other metallic objects, and six large entire walnuts, and several pieces of a hawthorn walking-stick. Lastly, a piece of iron wire had traversed the stomach, and become encysted in the walls of the abdomen, without inflicting any apparent injury to the bird.

DISCOVERY OF A HUMAN SKELETON AT LEICESTER, IN THE BED OF THE SOAR.—Mr. James Plant, of Leicester, in the *Geologist* of this month states:—On the western side of the town of Leicester there was an old bridge known as the "Bow Bridge." It has recently been taken down for reconstruction; during the progress of the work the stream has been stopped, and a dam thrown across the channel north and south of the bridge, leaving the bed of the river dry. The upper surface was a black, muddy, alluvial deposit, but this being penetrated, the pure drift gravel presented itself. This gravel lies immediately on the abraded surface of the Upper Keuper Sandstone, which here dips away under the town towards the Liassic hills on the eastern side. In excavating on the east side of the old bridge for the new foundations, and digging in the bed of the river, they came upon ground in the drift of a mixed character, gravel and silt. After digging out three feet of this, they came upon a human skeleton lying face upwards, the knees drawn towards the head. It was nearly entire, a few of the vertebræ and the smaller bones of the hands and feet only are wanting. Near this skeleton were found the skull of a horse, ox horns, and other bones. The horn-cores of the ox appertain to the *Bos primigenius*. Their mineral condition is very different from the human skull, which beyond its being slightly prognathic, and exhibiting rather thick canines, does not offer any marked peculiarity. Its antiquity may be considered as very doubtful.

PALMER THE MURDERER.—At a recent meeting of the supporters of Dr. Lankester in his canvass for the office of Coroner for Central Middlesex, Dr. O'Connor, Physician to the Royal Free Hospital, related the following interesting occurrence as an instance of the necessity for having Medical Coroners. Addressing the meeting on the subject of Palmer's trial, he said:—"I will relate to you an interesting occurrence in connexion with that trial to prove that a Medical man, of the acquirements and professional knowledge of Dr. Lankester, is the most fitted person to fill the office of Coroner. It will be in the recollection of the meeting that the presiding judges on the occasion of the trial of Palmer were the late Lord Campbell, the late Baron Alderson, and Sir C. Cresswell. The Baron belonged to a family some of whom were able Physicians. One was the late Dr. Alderson, of Hull, another Dr. Alderson, the present accomplished Senior Physician of St. Mary's Hospital. Baron Alderson, desirous of obtaining reliable information regarding the effects of strychnine on the animal economy, sought the advice of his relative, who readily, with the aid of Mr. Copney, then Dispensing Apothecary at St. Mary's Hospital, went through a series of experiments with strychnine on frogs, and some of the lower animals. The Baron immediately afterwards communicated to Lord Campbell a full account of what he had witnessed, when the latter expressed an earnest desire to see the experiments repeated. Dr. Alderson promptly complied with the request, and a meeting took place at his house in Berkeley-square. There were present on the occasion—Lord Campbell, Baron Alderson, Sir C. Cresswell, Dr. Paris (then President of the College of Physicians), Dr. Alderson, and Mr. Copney. After five hours' careful observation, during which many experiments were gone through showing the effects of doses of various degrees of strength of the strychnine, and the different tests applied for its detection, Lord Campbell and his brother Judges left better acquainted with the poisonous nature of strychnine and the processes necessary for its detection than many of the witnesses who were examined. This circumstance, which he (Dr. O'Connor) was able to state on the best authority, and which had never before been made public, was an admission by the Judges of the necessity of Medical knowledge on the part of persons presiding over injuries as to the cause of death, and it enabled the Judges with much greater facility to get through the conflicting evidence given at the trial, whilst it contributed much to the just conviction of Palmer."—*Morning Post.*

THE late Mr. Walton Kent, of Walsham-le-Willows, Suffolk, was the last male descendant of a very remarkable and talented family. His father had obtained a considerable local reputation for his success in cases of scrofula. Two sons were regularly educated for the Medical Profession, and both obtained distinction in it. The eldest son, Walton, commenced practice at Walsham about thirty years ago, with few introductions, save those awarded to his own skill and perseverance. Until a few months before his death he discharged the duties of a large Union and private practice to the great satisfaction and approval of parish authorities and patients, and with the respect of his Professional brethren, to whom he always showed the greatest courtesy and deference. But, arduous as were his Professional labours, he yet, by an extraordinary elasticity of mind and desire to be useful, undertook, and faithfully discharged for the public benefit, various duties requiring much of his otherwise well employed time and attention. He filled at once the several duties of Charity Trustee, Churchwarden, Road Surveyor, and Vice-Chairman of the Institute, of which, we believe, he was the originator; and the interest which he took in all that appertained to the welfare of the poor in his neighbourhood will cause his memory long to be cherished. The younger brother of Mr. Walton Kent died in October, 1855, at Stanton, where he practised as a Surgeon, and which place he made famous by his superior manipulation of pharmaceutical preparations. He produced and exhibited in competition with the whole world vegetable extracts and essences unsurpassed by the best productions of metropolitan laboratories, gaining medals for the same at the Great Exhibition of 1851, and also at the Exhibitions of Paris and New York. After his brother's death, Mr. W. Kent followed this pursuit, more for pleasure than profit, with much success. In both it was a science congenial to their early taste for Medical botany. A few months since ill health obliged him to relinquish his practice to Mr. Hughes, and he expired on Tuesday week, in the 60th year of his age.

THE following extracts from the journal of a soldier in General McClellan's army, whose regiment is stationed near White House, show some of the realities of war. Professor Liebig was right in connecting pugnacity with beef-steaks:—"I have always heard that living on one's relatives was but poor business, and have realised the fact since I have been indebted to Mother Earth for my lodgings, and to Uncle Sam for my food. . . One hundred and fifty of our regiment are sick. No one who has not felt it can realise the suffering of slowly wearing away for want of nourishing food. For ten days before we started on the march from York Town I had eaten nothing but coffee and hard bread, with the exception of one piece of fresh meat, about a quarter of a pound. They have treated us to salt beef, or 'old horse' as it is termed, so very salt, tough, and poor that we could not eat it. Salt pork was a delicacy compared to it. On our march we got that last-named delicacy, but scarcely enough to keep soul and body together. Gradually I felt it working on me. I lost all appetite. For the last two or three days we have had a little more meat, and I feel much better. Those who laugh at a man who complains of going into battle hungry should try the experiment. Three months such work as we have had this week would kill every man in the regiment. On Monday morning last we left Old Church and our knapsacks behind, walked nine miles towards the enemy's lines, till we came to their pickets, with whom we had a slight skirmish. About two dozen shots were fired—one or two

men on their side were wounded, and about the same on ours. The principal part of the shots were fired at our regiment, we being just in front. We marched eighteen miles that day; feasted on crackers and coffee for breakfast, crackers for dinner (my stomach is disgusted with them), coffee, crackers, and a small piece of meat for tea. Before we lay down that night, which we did on the ground in our overcoats under a heavy dew, we had marched thirty miles. We had for breakfast that day a cup of coffee and crackers, for dinner nothing, for supper crackers again. Next day we went round the country for about eight miles, taking prisoners; had nothing but crackers all day. Next morning we had a little piece of fresh meat and some crackers. We marched out about four miles, lay all down in the woods, ready to cut off the enemy, and got back about five p.m. We had nothing to eat after breakfast all that day till we returned. When we got into camp we were told to get ready to march back to Old Church, sixteen or seventeen miles, that night. I felt sick at the idea, and made up my mind that, without something substantial to eat, I could not stand it. By good luck I managed to get some meat and a little salt, with which, in spite of the haste to get off, I made a stew, which I shared with one of my comrades, perfectly deaf to all cries of 'fall in here.' Very few had my good luck. They, poor fellows, went hungry, and suffered. It was astonishing how that meal built me up. I marched with ease to camp, and did not feel very tired. To-day coffee and crackers once more; I believe I only feel so-so."

THE LUDGATE-HILL MURDERS.—In the examinations of Mrs. Vyse, before Alderman Wilson, no new facts of medico-legal interest were adduced. Mr. Attfield's analyses of the contents of the stomachs, and of Battle's vermin killer, were simply quantitative. He made no attempt to determine the amount of strychnia swallowed, although his experiments were quite decisive as to the presence of the poison. The state of the prisoner's mind is still only a matter of inference, It appears that she gave her sister a letter referring to her crime, but the latter had on her own judgment destroyed it without making herself acquainted with its contents. Before purchasing the preparation of strychnine she had asked the chemist for hydrocyanic acid. On being discovered she said that "she was mad and wished to die." It is believed that a porter in her husband's employ, named Smith, and one of the Hospital nurses in attendance on her, could, if they pleased, give information as to the circumstances which led to the commission of the murders. Mrs. Vyse is committed for trial.

ETHNOLOGICAL SOCIETY.—At the meeting of the Society on the 1st inst., John Crawfurd, Esq., F.R.S., President, in the chair, a paper was read by Professor Huxley, F.R.S., on the "Human Remains Found in the Shell Mounds of the Malay Peninsula." In consequence of the illness of Professor Huxley, an abstract only of the paper was read, in which the author regretted that the fragmentary nature of the evidences precluded him from offering any opinion as to the probable race to which they belonged. Observations were made on the relics by Dr. James Hunt, Mr. John Evans, F.S.A., and the President. The next paper was by Mr. Mackie, "On Some Human Remains from the Valley of the Trent and from Weardale." The principal facts which Mr. Mackie laid before the Society have been already published in the *Medical Times and Gazette*. He called especial attention to the Muskham skull, and pointed out the abnormal characters of the occipital foramen, and with respect to the Heathery Burn relics, confidently assigned to them an antiquity of at least 200 years B.C. The discussion supervening on the paper was opened by Mr. Carter Blake, who dilated at length on the characters of the race of men whose remains had been found at Muskham, Borris, Blackwater, Sennen, Heathery Burn, and Anglesey, remarking that so far as we were cognizant of genuine British skulls, they were very unlike the majority of skulls of the present day. *Bos primigenius*, or his direct representative, had not been previously demonstrated to have been contemporary with man; and although several other instances had been lately adduced by antiquaries, they at present lack scientific corroboration. The evidences at Muskham, however, could not be inferred to be those of the aboriginal population of the British Islands; the latter were possibly the men who left the chipped flints at various localities. Of the osseous and cranial character of these races we are ignorant,—a fact which teaches us the futility of negative evidence in geology. Dr. Knox congratulated the Society on the discovery of so valuable an assemblage of facts, and said that if we had had the cervical vertebræ belonging to the Muskham skeleton, we should have been warranted in assuming that it was a distinct species of man. He had advocated during many years the theory of the common derivation of animals from one origin, and still considered the development of the human race as subject to the operation of ordinary zoological laws, the exact mode of operation of which was hitherto undemonstrated. Sir John Bowring, Mr. Pringle, Mr. Wright, F.S.A., Mr. R. S. Poole, Mr. Burke, Mr. J. Evans, F.S.A., Dr. Hunt, and the President, joined in the discussion. Mr. Bailey read a paper "On the Veddahs of Ceylon," illustrated with beautiful photographs of their skulls. Papers were also read by Mr. Clarke, "On some Drawings from Sierra Leone;" Dr. Knox, "An Inquiry into the Influence of Climate and of Hybridity over Man;" and by Dr. Julius Schvarcz., F.G.S., of Stuhlweissenburg, "On the Permanence of Type." The Society formally adjourned till November.

AMERICAN RED-TAPE.—The red-tape which, in the Crimean war, so tightly surrounded the limbs of official activity until the burst of popular indignation rent its girths asunder, seems to be producing still more mischief in the United States, where *à priori* promptitude and energy of action would have been expected to have proved a leading feature. The editor of the *American Medical Times*, who, throughout the calamitous war, has proved at once a vigilant and discreet guardian of the soldiers' rights, complains in a recent number (June 7) in bitter terms of the deadening and destructive action and incompetency of official routine. Needless delays and insufficient provision, not from want of means but from neglecting these, seem to have characterised all its actions; and had it not been for the activity of the Great Central Voluntary Association called the *Sanitary Commission*, numberless glaring defects would have still remained undiscovered and unremedied. This body has also been converted into a vast benevolent agency, carrying necessaries, comforts, and even luxuries into the abodes of misery and despair. No sooner are the wants in an Hospital made known than these are at once and liberally supplied. "From every quarter," says the editor "we hear the same universal complaint of want of preparation, of tardiness to meet the exigencies of battles, and in consequence of the sacrifice of human life, with a vast amount of needless suffering. The horrors of the battle-fields of Bull Run, Fort Donaldson, Pittsburgh, Williamsburgh, etc., can never be written, and yet all occurred under circumstances which allowed of more or less complete preparation. . . At Fort Donaldson, the poor sufferers remained for days uncared for lying on the snow; not because succour was not at hand, for private bounty had furnished an ample supply and freely offered it, but because an official could not unwind the red-tape which bound his legs in less than forty-eight to sixty hours. Pittsburgh found the same army utterly unprepared in its Medical department for battle, and the first assistance that reached the sufferers came from Chicago, hundreds of miles distant, by private hands. Tardiness and tedious formality marked every movement for days, while hundreds were weltering in their blood, unable to move a step from where they fell. The recent Battle of Williamsburgh was but a repetition of the sad scene with all its sad and harrowing consequences. The wounded were left unprovided with attendants, shelter, or means of transport, except of the rudest character. The principal provisions for the immediate care of the wounded and sick were, as in nearly every instance, made by the Sanitary Commission or charitable associations. In our Military Hospitals we find the same want of earnest and systematic labour. The sick and wounded are waiting on the threshold before the building is in readiness to receive them, though the emergency was long foretold; and many of the Hospitals are poorly provided with stores, though there is an abundance bound up with red-tape near at hand."

THE ARMY MEDICAL DEPARTMENT.—The authorities at the Horse Guards have chosen to ignore the claims of the Medical Officers recommended for reward by Sir Hugh Rose and Dr. Arnott. They have also taken six months to consider the just demands contained in the memorial which was presented to the Secretary of State for War in January last. Such policy can have but one effect. It must not only deter good men from entering the service, but discourage all ambition to excel amongst those who are already enrolled. We are glad to see that the fate of the memorial was the

subject of a question in the House of Commons on June 27. General Lindsay asked the Secretary of State for War whether any answer had been given to a memorial presented on January 10, 1862, by certain Army Medical Officers; and if he had any objection to lay upon the table the report of the Committee to whom the memorial was referred. Sir G. C. Lewis said that no answer had been given to the Memorial, which was now under consideration. The report to which the hon. member's question referred was only made for the guidance of the office, and he could not produce it.

A WRITER in the *Richmond News*, who signs herself "A Wife and Mother," exhorts her Secessionist sisters to prepare coffee for the "rebel" army. The directions are sagacious and practical; and there seem few signs of giving in:—"One-third pure coffee, the rest wheat or rye, rightly prepared, will furnish a strengthening drink which will add greatly to their comfort. Let the coffee be browned a little, then add the wheat or rye, toasting them together. In this way the taste of the coffee is imparted to the grain. Grind or pound well. To one measure of coffee add eight of boiling water. Let it boil well, stirring it down until the entire mass disappears, when it will look clear. Add a little cold water, let it stand until it settles, and you have quite nice coffee. Now, will not every woman at once toast her coffee, grind it, and have it ready for use? Surely all the milk-carts, molasses barrels on carts, and any conveyance one may think of, can carry it to some places designated; when some persons, whose business it shall be, may portion it out. If a regiment were detailed for this business it would do good service. Let no one begrudge her little mite of coffee."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 28, 1862.

BIRTHS.

Births of Boys, 897; Girls, 910; Total, 1807.
Average of 10 corresponding weeks, 1852-61, 1708·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	540	526	1066
Average of the ten years 1852-61	596·8	519·0	1115·8
Average corrected to increased population..	..	..	1227
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	..	8	1	4	2	5
North ..	618,210	1	6	13	3	4	15	5
Central ..	378,058	..	15	8	..	3	4	4
East	571,158	1	33	6	1	9	18	4
South ..	773,175	1	5	13	4	7	9	6
Total.. ..	2,803,989	3	59	49	9	27	48	24

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·762 in.
Mean temperature	56·2
Highest point of thermometer	72·5
Lowest point of thermometer	43·8
Mean dew-point temperature	48·5
General direction of wind	N.W.
Whole amount of rain in the week	0·09 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We regret that our present arrangements do not permit the publication of births or marriages.

We must apologise for several misprints in our account of the "Picnic of the South-Western Medico-Chirurgical Society at Netley." But if contributors *will* write illegibly, how can mistakes be prevented?

Dispenser, Smyrna.—The attendance alluded to by our correspondent will only be recognised by the London College of Surgeons as so much time spent in the acquirement of Professional knowledge. If "Dispenser" commenced the study of the Profession before the 1st of January, 1861, he will be exempt from the preliminary examination for Membership of the College.

If any one of our readers who practises midwifery, and has perhaps a wife and half a score of children of his own (some of them possibly just recovering from the whooping-cough, or a baby fretful and wakeful with teething), has ever been summoned hastily in the night, he will acknowledge the value of a good lucifer-match. How sometimes whilst an anxious husband is plying two bells and a knocker without awaking the lazy manservant, does the irritable Accoucheur curse the matches that explode without kindling. Bryant and May's patent special safety matches are invaluable for their ready-lighting properties, and they have the advantage of being quite harmless if thrown carelessly about. The matches themselves contain no explosive substance,—probably only sugar and chlorate of potass. Some amorphous phosphorus is spread on the sides of the box, and it is only when rubbed on this that the match kindles.

A Gratifying Fact, if true.—Professor Charles A. Lee, the Medical correspondent of the *American Medical Times*, gives an account of Lord Derby's description of the injuries arising from muriatic acid vapours in the manufacturing districts. Professor Lee adds, "The injury to anima life is hardly less obvious throughout these districts than to vegetation. This is shown by the high mortality rate, amounting in some places to over twenty instead *of eight in a thousand, the average mortality throughout England!*" Would it were so.

The *Fucus Vesiculosus* is a common sea-weed, and may be procured at almost any conceivable part of the coast. A pamphlet "On its Virtues in the Relief of Obesity," by Dr. Duchesne Duparc, is published by Baillière, Regent-street. The Editor has seen marked good results from its administration in one case: that of a lady, about 35, exceedingly fat, short-breathed, complaining of pain in the left side on exertion, and of oppression about the heart. In her case, it has produced decided diminution of bulk, and a great feeling of comfort and lightness; the complexion is clearer, and the aspect less heavy. It was prepared for this case by Messrs. Rew, chemists, Regent-street, and is likewise prepared by Curtis and other manufacturing chemists.

"Dr. Gibbes was here five minutes ago, laughing at these liver cases,—so everything is called now:—

Whence this distress of head?
Whence comes my nose so red?
Our Doctors all have said,
From liver.

Why all this heat of skin?
Why so much pain within?
What makes me get so thin?
My liver.

Why gout in feet and toes?
Carbuncles on my nose,
When all this only shows
'Tis liver.

Miss Rosa has a pimple
Where once she had a dimple,
And she believes, Oh, simple!
'Tis liver.

Why, my torn frame to tease,
Bites of bugs, gnats, and fleas?
All these excrescences
Come from my liver.

These are not my verses, *Dieu m'en garde;* but if they amuse Lady F., in her present state, for five minutes, they are five good stanzas."—*Life of Mrs. Piozzi.*

MEDICAL ETHICS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If the Surgeon whose conduct I commented on in a letter under the above head, wishes to explain, pray let him do so. The absence of his name in my letter was no concealment as far as his Oxford Medical brethren were concerned. Your readers from a distance will be as well satisfied with his explanation under the title of M.R.C.S.E., or any other, as if he were to give his true patronymic.

As regards any explanation that may be offered, if the Profession generally credits my statements, (the accuracy of which I can prove), and is satisfied with the forthcoming explanation, I shall be satisfied also.

I am, &c. FRAS. W. CLARKE.

Oxford, June 24, 1862.

THE MEDICO-CHIRURGICAL SOCIETY'S COMMITTEE'S EXPERIMENTS ON ASPHYXIA AND APNŒA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I quite agree with the remarks made by Dr. E. Smith at the Medico-Chirurgical Society on Tuesday evening, with reference to the Report of the Committee on Asphyxia. Why, may I ask, was not Dr. E. Smith put upon that Committee? Who is responsible for so sinister an omission? Was it right to sacrifice the lives of so many valuable dogs for the attainment of results which do not satisfy everybody? The most objectionable part of it is, that whilst the dogs were thus lavishly sacrificed, not a single experiment was made upon the living human subject. Who is there, I ask, who would devise and submit to the requisite experiments, who would test in his own person how long the privation of air, with or without immersion, can be tolerated without producing death, except Dr. E. Smith? Clearly the right man was not in the right place, and the sooner he is put there the better. I am, &c.

A CONSTANT READER.

South American Medical Practice in the Sixteenth Century.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the account recently published by the Hakluyt Society of the expeditions in search of El Dorado, a curious example is related, by Mr. C. R. Markham, of the Surgical proceedings of the Uaupe Indians in the year 1541. Philip von Huten being wounded, "the friendly Chief of the Uaupes resorted to a strange method of discovering the means of curing Huten's wound. An old slave was dressed in the German knight's armour and placed upon his horse, and while in this position, an Indian wounded him in the same way that the Omagua had wounded Huten. Thus, *by cutting the old slave up*, they discovered the direction of Huten's wound, and cured him." It would seem, therefore, that neither vivisection nor experimental Surgery are peculiar to civilisation. I am, &c.

British Museum.

Chloroform as an Advertised Secret Remedy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As you have referred to some alleged wonderful new "secret mode" of administering chloroform, practised by a Medical man on the Surrey side of the river, would you permit me to say that there is really nothing whatever new in the thing. It has this one immense disadvantage, too, that the spirit (separated from the chloroform) collects in the sponge, and you are obliged to go about the house squeezing the sponge and distributing a "smell as of Bucklersbury," or physic, wherever you go. A very absurd apparatus of a pair of big bellows and a large bag, like a Jew's old clo's man's bag, into which a supposed vapour of chloroform is blown in a proportion of 3½ per cent, is also advertised. But fancy a man with a Jew's old clo's bag on his back, coming into a lying-in room to assist a second man to deliver a delicate sensitive lady Is it any wonder chloroform is ridiculed and made terrible?

There is no more truly pitiable story in the entire history of science, than the cruelty with which Morton, the discoverer of anæsthetics, has been treated the last couple of years in America; a poor young man, a mere student. The story has been here misrepresented. We talk of the persecutors of Galileo, and very bigoted they were; but the story of chloroform is dismally so much like it, that it is only by sadly and constantly writing about it, we have any chance from preserving free from nonsense, if not from something more, the greatest gift to science, and the happiest boon to humanity of the 19th century! I am, &c. C. K.

Sackville-street, June 1.

Treatment of Specks on the Cornea?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Be so kind as to suggest to a coustant reader some mode of treatment for a case of specks of both eyes of twelve years' standing. I tried various applications, such as lunar caustic, strong solution of iodine, liq. ammoniæ, fomentation, and other remedies in vain. If you or any correspondent could advise me what to do, you would confer on me a lasting favour. I am, &c.

Paisley, July 1. John Wilson.

Ophthalmic Hospitals in Dublin.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to correct an error made by Dr. Wilde in his report on the number, sexes, and condition of the blind in Ireland, published in your last issue?

He says, "There is at present but one special Hospital, St. Mark's, in the city of Dublin, erected by, and chiefly maintained through, private benevolence. The only other institution specially arranged for the treatment of ophthalmic diseases is a small portion of the City of Dublin Hospital." As this statement is calculated to mislead those of your readers who have never visited our city or inquired into its Institutions, I beg to state that, in addition to the above-mentioned Hospitals, there are, specially arranged for the treatment of eye diseases, the following:—1. The National Eye and Ear Infirmary, established in 1814, having for its patron his Excellency the Lord-Lieutenant, and to which I have the honour of being attached as Ophthalmic and Aural Surgeon. Recently, owing to the liberality of a a number of kind friends, its funds have been largely increased, and two wards, specially arranged for the treatment of ophthalmic cases have been added to it. The number of extern patients during the past year was upwards of 2000. 2. There are beds in the Richmond Hospital, under the supervision of Dr. Edward Hutton. 3. There are special beds in Dr. Steeven's Hospital, under the care of Dr. Wm. Colles. And, 4. There are beds at the Meath Hospital, lately under the care of Mr. Smyly, and now about to be transferred to his son, Mr. P. Smyly. With these facts, looking one in the face, I am at a loss to understand how Dr. Wilde could have made such a statement as that contained in his report.

I am, &c.

7, Upper Merrion-street, Dublin, June 28. J. G. Hildige, M.D.

The Muskham Skull.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—To correct some misapprehensions which have been made respecting a passage in my Paper "On the Crania of the Races of Men," (*Geologist*, p. 215,) I wish it to be distinctly understood that I have not inferred *simpliciter* that "the prehistorical contemporary of *Bos primigenius* in the Valley of the Trent" was not erect, but merely that the morphological and teleological arguments afforded by the structure of the occipital segment in that individual were compatible with the theory that a stooping or semi-prone attitude was habitually assumed by him. No conclusions were drawn by me from this single instance as to any race-characters, and I moreover stated, after a review of the evidence furnished by all the early crania with which I am acquainted, that "Neither in the size of the supra-orbital ridge; the extent of frontal development; the form of the occiput, whether shelving, vertical, or globular; the persistence of an interparietal bone; the presence or absence of a sphenoido-parietal suture; the position of the condyles; the development of sagittal or lambdoidal crests; the size, shape, or position of the styloid, or vaginal processes—have any of those differences which so prominently characterise the *Homo sapiens* been departed from, nor any of the simial features superadded or retained as embryonal characters; nor have the latest published demonstrations of the anatomical characters of these ancient crania by the ablest advocates of the hypothesis of direct selective transmutation afforded us any satisfactory evidence to break down the broad bridge of demareation which still separates us from the inferior animals."

am, &c. Charles Carter Blake.

"Justifiable Self-assertion."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The accompanying card needs no comment; but as the person from whom it issues evidently courts publicity, will you indulge him with the opportunity of obtaining the opinion of his Medical brethren upon what he calls his "justifiable self-assertion."

I am, &c.

June 28. A Pimlico Surgeon.

"circular medical card.

"In consequence of the decided expression of public opinion, as lately manifested through the columns of the *Daily Telegraph*, on the subject of Medical charges, Dr. Wilks Bourne, 11, Elizabeth-street, Eaton-square, takes this method of informing his patients and the public of the industrial and middle classes, that he has resolved to adopt the system suggested in that journal, viz., to make one fixed charge for visits and medicines together, according to distance. In future the following scale will be adhered to:—

"Visits and medicines (a)—

	£	s.	d.
Within one mile of Eaton-square (anywhere in Pimlico, Chelsea, Brompton, South Kensington) . . .	0	2	6
Within two miles	0	3	6
For every additional mile	0	1	0
Home advice and medicines	0	2	0

"The advantages of this arrangement will be—

"1st. The evil denounced by the *Telegraph* of charging according to the quantity of medicines sent, thus drenching the patient with needless drugs, is avoided.

"2nd. The patient knows exactly what he pays, and Doctors' bills are avoided.

"3rd. It places skilled Physicians' advice within reach of the less opulent classes, who have hitherto been compelled to resort to ignorant druggists.

"*The 'Daily Telegraph' and the Doctors.*

"In the course of the late discussion on Medical matters in this widely-circulated Journal, one writer affirmed that hundreds of Medical men are grossly ignorant; that they were 'crammed' when they went up for examination, &c.; and another writer, a London Physician, asserts of his Profession 'Not a few' (registered Practitioners) 'have no knowledge whatever of disease or medicine,' etc.—*Telegraph*, February 4. And he adds his belief that hundreds of lives are sacrificed yearly in consequence!

"When accusations so serious are circulated so widely, no wonder the public are alarmed; and it is but just that those who can do so should disprove them in their own case, and reassure the minds of their patients, who have no means of testing their Doctor's knowledge. To convince his friends and the public, therefore, that he for one does not come under the category described by the writers in the *Telegraph*, Dr. Bourne refers to the records of his University, where his name is enrolled as having taken the prize (b) for Pathology (science of disease), for his year. He merely mentions this fact, because he considers a little individual self-assertion to be both called for and justifiable under the late exceptional circumstances of attack on the Professiou.

"11, Elizabeth-street, Eaton-square."

"(a) Carefully dispensed by competent assistants. The average actual cost of the drugs in any prescription is less than one penuy (excludiug druggist's profits).

"(b) Univ. Edin. 1846. Class of Pathology, Professor Henderson. For the best synopsis of course of lectures, M. Wilks Bourne, M.D.

COMMUNICATIONS have been received from—

Dr. Knox; Dr. Young; Dr. Bond; Mr. F. W. Clarke; Mr. James Bruce; Mr. Garrington; Mr. John Wilson; Messrs. Foot and Co.; Mr. V. Jackson; Mr. C. G. Taylor;

APPOINTMENTS FOR THE WEEK.

July 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

7. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.

8. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

9. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

North London Medical Society, 8 p.m. Meeting.

10. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

11. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

Metropolitan Free Hospital.—The following Operation will be performed on Monday next, at two o'clock:—

By Mr. G. B. Childs—Lithotomy.

ORIGINAL LECTURES.

CLINICAL REMARKS ON SEVEN CASES OF OVARIOTOMY,

Made at the Samaritan Hospital, Monday, July 7, 1862.

By T. SPENCER WELLS, F.R.C.S.

Gentlemen,—After some hesitation it has been arranged by my colleagues, and by the House Committee of this Hospital, to set apart one day in the week for operations, or for clinical remarks upon cases in the Hospital, and to invite the Profession generally to honour us by their attendance. The Committee object—and, I think, very properly object—to the admission of young students to an Hospital for women; but, as it is the earnest desire of us all to make this Institution as useful as possible to Medical science and to Humanity, we open our doors to every honest member of our Profession, whatever may be his race, creed, or language—and we offer a hearty welcome, and our best assistance, to any one who may think that the experience he can gain here may be useful to any suffering woman in any part of the world, and who will pay us a visit any Monday afternoon at half-past two o'clock.

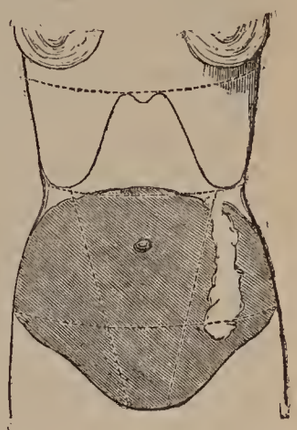
Some of you have just seen me perform the operation of ovariotomy. The patient was only 20 years of age. She had never been tapped, and the very large compound cyst you saw me remove, weighing more than forty pounds, was of only two years' growth. Tapping could have done no good. Ovariotomy was the only resource, and if, as we may fairly hope for, this girl recovers, we may certainly gratify ourselves by the reflection that our art has saved a life. But it will be better to postpone any further remarks upon this case for the present, and refer for a few minutes to six other patients who have undergone the same operation, and have been under our care here since the beginning of this year.

I need say very little as to the first case, because those who are interested in it may find full particulars in the *Medical Times and Gazette* of January 4; but at the date of that report the patient was only said to be doing well. The patient was a single woman, 50 years of age. She had been tapped twelve times, and the cyst was extensively adherent. Yet she recovered well, and left the Hospital a month after operation. I heard lately from Mr. Miles, of Gillingham, to whom I am indebted for the case, that she has since been in perfect health, acting as cook in a large family. This *perfect* restoration to health is most gratifying to the Surgeon. A patient is not mutilated, as by amputation of a limb, but she recovers perfect health. It is quite the exception to find both ovaries diseased; and one ovary furnishes fully enough ova to enable the person to become the mother of a large family. A few weeks ago M. Nélaton saw several patients upon whom I had performed this operation at various times since 1858, and he expressed both surprise and pleasure at the robust health they evidently enjoyed. Their ages varied from 17 to 55, and one of them had a child at the age of 43, thirteen months only after operation.

The next case was an unfortunate one, but I hope the lesson it taught has not been lost.

> "Fail—yet rejoice—because, no less,
> The failure that makes thy distress
> May teach another full success."

The patient was single, 30 years of age, and was admitted here early last January with a multilocular ovarian cyst, which filled the whole abdomen up to the false ribs on both sides. The disease had commenced about two years before, and its increase had been attended by great pain and frequent sickness. The girth at the umbilicus exceeded 36 inches, and the upper border of the tumour was within an inch of the ensiform cartilage. At a distance of four inches to the left of the umbilicus, and extending downwards, there was, in all positions, a clear space on percussion (represented in the annexed diagram), indicating that a coil of intestine was fixed and probably adherent there. The general history having led to the belief that the tumour was one of the right ovary, while the vaginal examination showed that the left ovary was diseased, I thought it probable that both ovaries were affected; but Dr. Savage, who saw the patient in consultation, satisfied himself and me that the uterus was sufficiently independent to permit of ovariotomy, and I accordingly performed it on January 13. The tumour, consisting of an immense number of very small cysts with very thin walls, was exposed by an incision extending five inches directly downwards from the umbilicus in the median line. As no fluid could be removed by tapping, I broke up the tumour with one hand, withdrawing it with the other. A portion of adhering colon (that indicated in the diagram) was drawn out with the tumour, and the adhesions were easily separated by the hand. The pedicle was secured by a wire rope, and the tumour cut away. Some ovarian fluid had escaped into the peritoneal cavity, and I removed a good deal of it; but, as there was a great tendency to protrusion of intestine, I did not sponge out the cavity as I usually do. I afterwards remarked to the gentlemen present, that I had in previous cases been extremely careful in sponging the peritoneum quite free from ovarian fluid, but that in this case the protruding intestine had led me to follow the advice of some Surgeons who think that the danger of sponging is greater than that of leaving fluid in the cavity. The wound was closed by sutures of silver wire. The patient did not rally well after the operation. She was sick and restless, with a rapid pulse, abdominal pain, and irritability of the bladder; and she died twenty-nine hours after operation. On post-mortem examination we saw proofs of general diffuse peritonitis. Many coils of intestine were united together by recent lymph, and the surface of the peritoneum was generally covered by a pasty layer of the thicker portion of ovarian fluid. Some of this fluid had gravitated into the pelvis, but there was no blood nor blood clot in the cavity. The pedicle was securely fastened an inch from the left side of the uterus, and fixed at the lower angle of the abdominal wound. The right ovary was about twice its natural size, and some shreds of organised lymph were floating from its peritoneal coat. The peritoneal surface of the wound was united; but not so closely as I had seen, at about the same period after operation, in cases where I had used harelip pins. One coil of small intestine was adhering to the peritoneal aspect of the wound by recent lymph.



I blamed myself very much for having left ovarian fluid in the peritoneal cavity in this case; for when one reflects a little, the argument used in support of such practice—that as ovarian cysts often burst into this cavity and the patients recover, therefore ovarian fluid in the peritoneal cavity does no harm—is manifestly untenable. In the first place, patients often die of peritonitis so induced, or, if they recover, they do so after a smart attack of peritonitis,—not *always*, but it is the rule. But even if they always recovered and without peritonitis, we must remember that the circumstances are essentially different. In the one case the cyst bursts into a closed serous sac, in the other the fluid escapes into a sac freely open to the admission of air; it is probably mixed with blood from separated adhesions, and is pretty sure to putrefy and to poison the patient if she lives long enough. I do not say that sponging is not better avoided. I say take all possible precautions to prevent ovarian fluid or blood from getting into the peritoneal cavity; but I say it will sometimes get there in spite of the greatest care, and if it does, my experience tells me to sponge it away as completely as possible,—to use soft, small, perfectly new sponges, and to use them until they leave the cavity as clean as they enter it. I am glad to see that in the first successful case in France, M. Nélaton says that he adopted this practice.

The next case was a most painful one. A very interesting young woman, 30 years of age, seemed to recover admirably from the operation, which I performed on the 9th of last May; yet tetanus came on on the twelfth day, and she died two days afterwards. The cyst had filled the whole abdomen up to three inches above the umbilicus. On the left side there was exactly such a fixed space clear on percussion as in the case I just related, indicating that the colon was fixed there, but the remainder of the tumour appeared to be free from

adhesions. The uterus was freely movable. She had never been tapped, and the growth of the tumour only dated from the previous autumn. In December and February she had had two severe attacks of peritonitis. I exposed the cyst by an incision commencing an inch below the umbilicus, and extending five inches downwards. There were no adhesions, but the surface of the cyst was covered by a layer of old organised lymph. The cyst was tapped by the new trochar which I then used for the first time, and which has since been brought before the Medico-Chirurgical Society. The cyst wall was tied over the canula, and the escape of ovarian fluid thus prevented. An adherent coil of intestine, and a large piece of omentum were easily separated by the hand. The intestine was returned, the omentum kept outside on account of bleeding vessels. The pedicle was secured by a calliper clamp, the cyst cut away, and the wound closed; the pedicle being kept out at its lower angle, and a small piece of omentum which had been tied was kept out between two harelip pins.

The patient recovered admirably after the operation. She only required one dose of opium, and the pulse ranged from 90 to 100. She had no pain, and her cheerful, placid aspect delighted M. Nélaton and others who visited her several times. But on the evening of the 20th, eleven days after operation, she complained of a feeling of faintness, and some pain in the abdomen, as if the catamenia were coming on. The next morning she complained of some stiffness of the jaw; and on examining the abdomen, there was evident tetanic rigidity of the recti. The clamp had come away on the third day, but a live portion of peduncle, larger than a walnut, remained projecting at the lower end of the wound, the slough caused by the pressure of the clamp adhering to it. The slough had been gradually separating. The small piece of omentum also remained at the centre of the wound. Thinking that either peduncle or omentum might have something to do with the tetanic symptoms, I cut them both away, tying four arteries which bled on the cut surface of the peduncle. I also ordered a turpentine enema. This was given, repeated, and acted freely. At 2 p.m. she was in a profuse perspiration; pulse 112, full and soft. She was easier, and there was some appearance of menstruation. At 7 p.m. the pulse was up to 120; tetanic spasms of the recti became more frequent; the teeth were clenched, and though swallowing pretty well, the act brought on the spasms. At ten the pulse was up to 160, and there was great difficulty of breathing, relieved by hot wine, and followed by profuse sweating. Early in the afternoon I had decided on trusting to warmth, quiet, wine, and chloroform, giving no further medicines after the turpentine enema. She breathed the chloroform as soon as the spasms were coming on, and continued it till they passed off. The spasms continued during the night, but diminished in frequency early in the morning. At ten the pulse was down to 96; perspiration continued, and she remained apparently much better during the day, breathing a little chloroform occasionally; but at night the spasms became more severe and frequent, and the power of swallowing was almost lost. Pulse 110. Chloroform was given almost to insensibility, and repeated a few times during the night, but the spasms were not frequent. The next morning the pulse was again down to 96, and she looked so much better all the forenoon that I was very hopeful about her; but all at once in the afternoon a violent spasm came on with croupy respiration, dusky face and lips, rapid strong pulse, and such a retraction of the walls of the chest at each attempted inspiration, pointing to laryngeal obstruction, that I instantly opened the trachea. The respiration immediately became tranquil, though very shallow, and gradually ceased; and we noticed that the heart continued to beat vigorously for fully three minutes, and more feebly a minute longer, after respiration had become imperceptible. We made an examination of the body, but found nothing whatever to account for the tetanus. The wound was perfectly united both on its cutaneous and peritoneal surfaces, and the peduncle and portion of omentum were closely connected with the cicatrix, but there was no traction on either. There was no sign of peritonitis, nor could we trace any altered nerve or vessel from the neighbourhood of the cicatrix. I had one consolation in this case, for a friend told me of two cases of tetanus which he had seen after the simple operation of tapping a hydrocele. It may seem strange to console oneself by the misfortunes of one's friends; but it certainly is satisfactory to feel that the tetanus was not specially attributable to the operation of ovariotomy in my case, any more than to the tapping the hydrocele in the others.

The next case is both gratifying and instructive. The patient was married, 41 years of age, and the mother of six children. She came in with a large multilocular cyst of two years' growth, and had suffered so much for the last two months, and had become so emaciated, that if it had not been for a certain appearance of cheerfulness and determination to get well about her, I should have declined to operate. Her pulse had been for some time very rapid, but this I attributed to inflammation going on within some of the cysts, and it only induced me not to lose time, especially as the uterus was normal, central, and freely movable, and there was no part of the tumour in the pelvis.

I removed it on May 14. M. Nélaton was present, and took great interest in the operation. I made an incision five inches long from two inches below the umbilicus, separated some adhesions between the cyst and abdominal parietes very easily, and finding no cyst large enough to be emptied by tapping, I passed my hand into the centre of the mass and broke up the septa, pressing out the contents, and withdrawing the tumour as it was thus lessened. A piece of omentum was easily separated, a broad peduncle secured by a clamp, and the tumour was then cut away. Then I found that there was free bleeding between the clamp and the uterus, and I put on a second clamp behind the first and behind the bleeding surface. But the second clamp pressed through the soft peduncle just as the first had done, and I had to grasp the uterus with one hand while I caught up an artery just where the Fallopian tube came off from the uterus, and Dr. Rogers tied it. Still there was free venous bleeding, and we tied two clusters of large veins close to the side of the uterus. Then the bleeding ceased, and I closed the wound, bringing the ligatures out at its lower angle, after I had thoroughly sponged out the peritoneal cavity.

As the patient left the Hospital in very good health the week before last, I will only refer to one point in the progress of the case, after operation, which was new to me. On the tenth day, after having been going on fairly well, she began to look yellow, to lose appetite, and to feel very weak. The pulse, which had varied from 110 to 120, rose to 130 and 140, and there was a discharge of gelatinous mucus from the rectum. On examination, I found a depression of the recto-vaginal septum, which led me to fear some serous or purulent collection in the pelvic cellular tissue. She improved a little next day, but on the twelfth day was more depressed and yellow than ever, and there were aphthæ on the tongue and cheeks, with rapid shallow breathing, and very viscid bronchial secretion was coughed up with difficulty. The tension of the recto-vaginal septum having increased, I passed a trochar into the most projecting part in the vagina, behind the uterus, and evacuated eight ounces of very fetid bloody serum. This was followed by a discharge of grumous pus and immediate relief, with improvement in her general condition. Two days afterwards a very free discharge of fetid pus escaped by the side of the remains of the pedicle, and this continued in varying quantity for several days; but she gradually improved in health, left her bed on June 7, walked down stairs without assistance on the 10th, and left the Hospital the week before last in a very fair state of health and excellent spirits.

I must defer until next Monday the few remarks which I have to make on the other cases.

THE GREAT NORTHERN HOSPITAL. — The Annual Festival of this Charity took place on July 9, at the Albion Tavern. Robert Hanbury, Esq., M.P., presided. The Report states that the Hospital was founded in June, 1856. The yearly average number of out-patients has been over 50,000. For the last three years the average annual number of in-patients has been over 200. The Committee have concluded an arrangement by which the premises now occupied by the Hospital have been taken by the Metropolitan Railway Company, and the compensation received from the Company will suffice to pay off the existing debt. It is now proposed to build a new, small, but model Hospital of about fifty beds. The estimated cost will be about £4000. We are glad to find that the Committee propose adopting the best mode of discountenancing the abuse of the Special Hospital system, by appointing days and hours in which patients labouring under what are called "special affections" can apply for treatment. Between £400 and £500 was collected.

ORIGINAL COMMUNICATIONS.

ON

DIFFICULT OR ANOMALOUS PARTURITION IN CONNEXION WITH IDIOCY.

By ARTHUR MITCHELL, A.M., M.D., etc.
Deputy-Commissioner in Lunacy for Scotland.

In the counties of Aberdeen, Kincardine, Perth, Fife, Kinross, Clackmannan, and Wigton, I examined consecutively 554 idiots and imbeciles. Into the history of each one of these I made a careful inquiry, with a view to discover the cause of the mental defect. Among other points to which attention was directed, was the influence of the act of parturition, and the information which I obtained bearing upon this I have now to communicate.

Of 60 patients it may be said that nothing was known, and my notes show that regarding 79 others the information was generally defective, though good on some points. To avoid the risk of exaggeration, I shall only deduct the 60 of whom nothing was known. This will leave as the basis of the investigation 494 idiots and imbeciles.

All of these were seen in their own homes, and the great majority I found living with friends or relatives. I could not, therefore, have made the inquiry under more favourable circumstances. By cross-questioning and leisurely talk, I had an opportunity of satisfying myself that what was stated to me might be received as correct, and nothing was recorded without this conviction. I make these remarks, not to indicate caution and painstaking, but to show how it happens that many of the results must be regarded as *under*-statements. I am myself perfectly satisfied that such is the fact, and it is of importance, in drawing conclusions, that this should be clearly recognised. . . .

Practically, each reader must be left to draw these conclusions for himself, and for obvious reasons. For instance, when it is said that 22, and probably more, of the 494 idiots were delivered by forceps, the fact will have a very different signification to a Siebold or a Busch, who deliver respectively every 7th and 12th woman under their care by forceps, from that which it may be expected to have to a Collins or a Simpson, who only deliver in that manner respectively every 617th and every 472nd mother. The proportion of cases supposed to require instrumental delivery differs very widely in the practice of different Schools and Institutions. It is difficult, therefore, if not impossible, to say definitely, regarding the fact in question, that it is in rule or out of rule. And the same difficulty extends itself to the other results of this investigation.

From these considerations it is deemed best to state the results briefly, and not to attempt elaborate comparisons with other data, which show such unsteadiness as to make them useless for the purpose. Where it can be done, however, with any prospect of advantage, they will be compared with the in- and out-door experience of the Edinburgh Maternity Hospital. This appears to afford the only near approach to a fair standard, since the teaching of the Edinburgh School, which does influence the practice and results in the Edinburgh Royal Maternity Hospital, may be assumed also to influence in some degree the practice and results in the country generally. I know as a fact, however, that throughout the districts over which my inquiry extended, the practice of one Medical man differs in this matter as much from that of another, as does the practice of one public Institution from that of another.

These remarks it is thought right and necessary to make, though they diminish the value of an inquiry which cost time and trouble, and which consequently cannot yield conclusions of so precise and definite a character as would be desirable and remunerative. Yet it is believed that the facts to be stated are such as, in their aggregate, will lead all to the general conclusion that tedious labours and instrumental deliveries do frequently injure the child in such a manner as to lead to the manifestation of idiocy. As to this no doubt whatever rests on my own mind.

The act of birth is, beyond doubt, fatal to a large number of children, and this result is most likely to occur when the case is complicated, tedious, or instrumental. The measure of the calamity, in fact, is in direct proportion to the seriousness of the difficulty or anomaly. And it is a reasonable inference, that that which is fatal to so many, will inflict grave and permanent injury on many others where *life* may be spared. And further, since it is the head which is chiefly exposed to such injury, it may fairly be expected that disease and defective development of the brain should follow.

The head, indeed, in all cases is subjected to such compression as to make one rather wonder that it ever escapes than that it often receives injury. According to the extent of this compression, so we know is the frequency of *fatal* results, and so also will the frequency of those injuries be which are *short of death*. Increase the size of the head only by the difference which exists between the heads of male and female children, and an examination of the results will prove what has been stated. Many more boys than girls always die from the act of birth, and it is the act of birth which makes the difference; for of the still-born, who perish before parturition begins, or who are putrid when delivered, there are as many girls as boys, if not more. But not only does the act of birth kill more boys than girls; among those whom it merely injures there are also more males than females. As one proof of this, I think I am justified in using the greater mortality of male children during the first year of life. There is a further proof in the fact that while of those who become insane in adult life there are constantly more females than males, the reverse is true of those whose insanity dates from infancy, among whom there are constantly more males than females.

Another fact which supports these views is derived from the very large proportion of idiots who are first-born children, in whose cases the difficulty of parturition depends on the state of the passages, and not on the size of the head, as when it was the question of sex.

Indeed, whatever be the cause of the unusual compression, the result is the same. Difficult parturition sometimes kills the child, and sometimes injures it where life is spared, and of this injury idiocy is one of the manifestations or consequences.

This conclusion appears to rest on *à priori* argument. I should not have stated it so strongly, however, had I felt that it rested on this alone. I have *seen* what has convinced me that it is true in fact. And I believe this will be the impression of all who examine the results of my inquiry. More certain still am I that it would have been the impression of every one who had gone through the process of collecting the facts now to be stated, and who would thus have known the details of each case.

The following is a condensed statement of the results of my inquiry:—

I. *Labour Tedious or Protracted.*—Of cases in which the labour was long, fifty-seven are noted, or one in 8·7 of the whole.

It may be assumed here that labour would be dated from the first regularly-recurring pains. With a few exceptions, it was said to have lasted in these cases for thirty-six hours or more, and in nearly all the mother was described as having been "very ill." Making allowance for the character of my informants (generally the parents or relatives of the idiot), and their admitted tendency to exaggerate in such matters, it may be received, I think, as certain that in all the fifty-seven cases the length of labour considerably exceeded twenty-four hours. In many of the cases I found that the midwife had been obliged to send for the Doctor, or that two Doctors had been present at the delivery, or that the animation of the child had been suspended at birth, or that fits had occurred immediately after birth, or that the child did not suck for several days, or that the mother made a slow recovery. Each case, in short, was tested by such a cross-questioning as is implied in the foregoing sentence.

I institute no comparison between the number of idiots born after protracted labours and the proportion of such labours occurring in the practice of large Institutions; first, because the date of commencing labour is very differently placed by different Obstetricians; and secondly, because in the one case the proportion is calculated on mothers, and in the other on surviving children, who may and do die in different proportions after natural, and after long and difficult labours.

In many of the cases, labour is said to have lasted two or three days, in 4 cases its duration was given as four days, in 1 as five days. Many of the births took place in remote and inaccessible parts of the country.

II. *Labour unnaturally Rapid.*—Four cases are noted in

which this occurred. In all of these, labour was said to have lasted less than one hour. In one, the placenta was delivered along with the child, and in another, the child was delivered into the night stool.

III. *Delivery by Forceps.*—Of such cases, 22 occurred, or 1 in 22·5. The Edinburgh Maternity shows 1 in 472. We have here, therefore, a very wide contrast. One of the 22 was paralysed at birth. Several had fits after birth. In others, animation was suspended. One was born with double rupture. In 9 cases, bald patches or cicatrices about the head attested the use of "the instruments." I mention this last, though I am aware that even great permanent depressions have been said to follow forceps deliveries, without any such accompanying defect of intelligence as to be acknowledged.

In the foregoing contrast with the results of practice in the Edinburgh Maternity, I have again to direct attention to the fact that in the one case the proportion is calculated on mothers, and in the other, on surviving children. To illustrate the effect of this, let us only suppose the mortality of children delivered by forceps (including the dead at birth) to be 27 per cent. greater than the average mortality of children (and my calculations show this to be certainly below the fact), then there would be among such children as reached the age of five years only 1 in 786 who had been delivered by forceps, instead of 1 in 472.

IV. *Version.*—Four cases of this occurred, or 1 in 123. The Edinburgh Maternity shows 1 in 236. By correspondence and otherwise, every effort was made to determine that turning had really been performed in these four cases. Here again, of course, we are only dealing with the survivors.

In one case the arm presented, and, after the mother had been in labour from two to three days under the care of a midwife, delivery was accomplished by version. The child was apparently dead at birth, and was weakly through infancy. It is now in a state of complete idiocy. Six years have elapsed since the birth, and, though the parents are still young, pregnancy has not again occurred.

The history of another of the cases is almost identical with the above. At the idiot's birth the mother's age was 35, and the father's 36. They are now well up in years. Great prolapsus uteri followed the delivery in question, and the idiot was the last child of the family, pregnancy never taking place again.

V. *Preternatural Presentations.*—On this point I obtained very scanty information. Only 6 cases are recorded, the breach presenting five times and the feet once.

VI. *Plural Births.*—Twins occurred 11 times, or *quam proxime*, every fortieth idiot was found to be one of twins.(a) In a separate paper I shall discuss the connexion between plural births and idiocy.

VII. *Premature Births.*—I thought that I should easily obtain trustworthy information on this point, but I found it otherwise, and was often left in doubt as to whether the idiot under examination had or had not been born before the full time. This occurred especially in alleged eighth-month cases.(b)

In three counties (Aberdeen, Perth, and Kincardine) I endeavoured to investigate this point with special care, and 308 idiots yielded 9 premature, or 1 in 34·2. In estimating the value of this, it must be remembered that of premature children a large proportion is still-born, and that those of them who outlive childhood constitute a small proportion of the total premature births.

VIII. *Animation of Child Suspended at Birth.*—In 29 instances (or 1 in 17) this is noted. In most of these cases it was stated that the child had been dipped first in hot and then in cold water, or that it had been rubbed with whiskey, or that its throat had been tickled with a feather, or that the Doctor had "worked its chest."

IX. *Condition of Idiot at Birth* (c).—(*a.*) In 33 instances, or 1 in 9·3, the idiot was described as having been weak at birth. (*b.*) In 11 instances, or 1 in 28, the idiot was described as having been notably small and puny at birth. (*c.*) In 23 instances, or 1 in 13·4, the idiot was described as having been unable to suck for several days after birth, and in some of these the child did not attempt to suck for thirty days. (*d.*) In 17 instances, or 1 in 18·1, there were such peculiarities about the child at birth as to lead at once to the suspicion of idiocy.

All these conditions are more or less directly connected with difficult or anomalous parturition, and for that reason they and others of a similar character are here stated.

X. *Number of Idiots who are First-Born and Last-Born Children* (d).—443 idiots and imbeciles gave 138 first-born children, or 1 in 3·2. The increased danger to which first-born children are exposed in parturition must in part explain this, though I do not think that it accounts for all.

Of the same number of idiots and imbeciles (443) 89 were last-born, or *quam proxime*, 1 in 5. Of these my notes show that 1 was the youngest of 17, 1 of 15, 1 of 14, 1 of 13, 4 of 12, 6 of 10, etc.

XI. *Other Facts not Embraced under the Foregoing Headings.*—(*a.*) In one case the mother of the idiot insisted that her child's condition was attributable to her having gone "greatly beyond her time." (*b.*) In one case great flooding preceded labour. (*c.*) In one case there was adhesion of the placenta, requiring forcible removal.

With reference more particularly to VIII. and IX., I beg to draw attention to an important fact in the history of the new-born. When making inquiries as to the idiot's condition at birth, I was very often told that the child was at first plump and apparently vigorous, but that a marked falling-off took place immediately after birth. Now, this appears to be a mere exaggeration of what seems to be the rule with children generally. Chaussier, I think, first remarked it; (e) and attention is directed to it by Quetelet, who gives the following interesting table:—

Weight of infant	at birth	3·126	kilog.
,,	,, on 2nd day	3·057	,,
,,	,, on 3rd ,,	3·017	,,
,,	,, on 4th ,,	3·035	,,
,,	,, on 5th ,,	3·039	,,
,,	,, on 6th ,,	3·035	,,
,,	,, on 7th ,,	3·060	,,

From this, Quetelet says, "it really appears that the weight of the child diminishes a little immediately after birth, and that it does not begin to increase in a sensible manner till after the first week."

Of late Siebold has confirmed this conclusion by carefully repeated weighings in forty-nine cases. In thirty-five of these diminution took place,—sixteen losing quarter of a pound; fourteen, half a pound; and five, one pound. As a rule, the diminution appears to have gone on to the third day, the weight then remaining stationary till the fifth or six day, when an increase began. In the fourteen cases in which no diminution was observed, the weight remained the same as at birth till the sixth or eighth day, when an increase began.(f)

If this diminution of weight be really a thing of general occurrence, whether it be physiological or pathological, it is surely one of importance and interest.

We are in the habit of tying the umbilical cord immediately or very soon after birth, whether the placental circulation has ceased or not, or at any rate without considering it of much or any importance that it shall have ceased before applying the ligature. I do not know when or how this practice originated, but I think there is room for questioning its propriety.

If the cord is tied while the placental circulation is going on, will the weight of the detached child be the same as it would have been had the cord not been divided till resumed uterine action or other cause had ended the placental circulation? And, moreover, may not a continuance of circulation in the placenta be a natural provocative to renewed contractions of the uterus?

When the child is weak at birth, almost all Accoucheurs advise that the cord should not at once be tied. But if it should not be done when the child is feeble, why should it be done when the child is apparently strong,—that is, in an average condition? "In all cases where the infant is born weakly, M. Baudelocque recommends not to cut the umbilical cord for some time, at least, after birth. He relates that since he has followed the opinions of Smellie, Leveret, and Chaussier on this subject, he has not lost a single case, although when

(a) Wigtonshire is not included in this calculation.

(b) Doubtful cases were not recorded.

(c) This inquiry applies only to the counties of Aberdeen, Perth, and Kincardine, yielding 308 of the 494 idiots.

(d) Wigtonshire is not included in this calculation.

(e) "History of Man," (translated by Chambers,) page 63.

(f) *Medical Circular*, April 10, 1861, page 259.

born the child might be in a state of pretty complete asphyxia."(g)

The management of *new-born* children has scarcely received that attention which it appears to deserve, when we reflect on the enormous mortality of the first week or month of life. Indeed, if we look at pregnancy, or parturition, or early nursing from the child's point of view, so to speak, that is if we study them with the interests of the child prominently before us, as my occupation leads me to do, we cannot fail to be struck with the bareness of the information having such a bearing, which will be furnished either by Obstetrical works or works on Diseases of Children.

ON THE NITRO-PRUSSIDE OF SODIUM AS A TEST FOR CERTAIN ALKALOIDS.

By JOHN HORSLEY, F.C.S.
Analyst for the County of Gloucester.

Since announcing the above test, I find, by using it in the manner stated, that the plea for the non-detection of strychnia in the presence of morphia no longer holds good, as subsequent experiments with five, and even ten, times the amount of morphia prove.

I find, also, that one drop of a solution of strychnia of 1 per cent. strength, agitated with one or two drops of a solution of the nitro-prusside, produces an abundant crop of crystals for an infinitude of experiments with sulphuric acid, the crystals under the microscope being in long nitre-shaped tufts and needles. A similar experiment with brucia produces larger and broader needles, having lancet points totally different from strychnia, as well as in its reaction with sulphuric acid. A similar experiment with morphia also shows certain characteristics:—Thus the crystals are for the most part of a peculiar starfish shape for the larger compound crystals, which appear to be made up of plates or layers of single squares. These crystals, when collected on a filter and dried, produce the usual orange-red coloured reaction with nitric acid, but, unlike pure morphia when touched with sulphuric acid, assume a deep sepia brown with a purplish shade, which is more or less persistent—totally different from the reaction on any other alkaloid. Possibly, by applying this test to some other alkaloids we may obtain some useful characteristics by which they can be recognised better than by some of our present methods.

As some may probably be desirous of information as to the best mode of extemporaneously preparing the test, I have much pleasure in furnishing it, and at the same time beg to observe that it is not necessary to carry the process so far as to separate the nitro-prusside from any adhering nitrate of potash and soda, which does not in the least interfere with its action, but, on the contrary, I think assists it. Thus: take three drachms of dry powdered yellow prussiate of potash; put it into an evaporating-dish, pour over it gradually a mixture of six and a-half drachms each of strong nitric acid and water; digest this over a water-bath till all bubbles of gas cease to be evolved; then weigh out five and a-half drachms or so of carbonate of soda, and add it carefully by degrees till the acid liquor is neutralised. Boil for a few minutes till a greenish brown precipitate forms; then filter, dilute with an equal bulk of water, and preserve for use.

In testing for strychnia, the smallest portion only is required, so as to leave a faint yellow spot in the capsule when dry, and very little crystalline matter. If no strychnia is present, there will be no reaction produced by sulphuric acid, and any little organic matter will not interfere with it as to effect decomposition like the bichromate of potash.

ON MORPHIA.

In addition to the nitro-prusside test for morphia, described by me in the last number of the *Chemical News*, and as above, I have now to notice another peculiarity of morphia—viz., the rapidity with which it reduces nitrate of silver.

If one drop of solution of acetate or sulphate of morphia (1 per cent. strength) be mixed with fifteen or twenty drops of a solution of nitrate of silver (4 grains per drachm), and agitated for a minute or so, a fine white crystalline precipitate of frosted silver shortly takes place, the liquor acquiring a slight yellow colour from the reaction of the liberated nitric acid upon the morphia, and on decantation or filtration and the addition of strong nitric acid the usual orange red colour of morphia is developed. If a white porcelain dish containing the nitrate of silver solution be slightly warmed first before adding the morphia, the reduction is almost instantaneous, and the vessel coated with a film of silver. I have not noticed a similar reaction with other alkaloids, so that this peculiarity entitles it to a place amongst the ordinary tests for morphia given in our toxicological works. I consider it quite as delicate and unexceptionable as iodic acid, which was generally considered the most sensitive test. Gallic and tannic acids need never lead to any confusion with morphia, as their reaction on silver solutions is very different; an intense muddy black or brownish black colour being produced immediately, and goes on to increase, whilst a flocculent precipitate forms, which is not the case with morphia, to say nothing of the other characteristics by which they are readily distinguished.

The Laboratory, Cheltenham.

(g) King, "Preservation of Infants," page 60.

NOTES ON CHOLERA AT ROME IN 1854.

By Dr. CECCARELLI.

In the year 1854 cholera appeared in Rome for the first time since 1837. A central Lazaretto was opened in the Hôpital de St. Esprit for cholera patients. Besides this in each quarter of the city a Lazaretto was established, and Medical men were appointed, whose especial duty it was to attend pregnant women who were attacked by the disease, for the purpose of saving, if possible, the life of the fœtus, by extracting it immediately after the death of the mother. The charge of the Borgo quarter of the city was given to Dr. Alexander Ceccarelli, who had been pupil at the Hospital. He performed seven of these Cæsarian operations, two only of which were successful.

During the winter of 1854—55 the cholera was very amenable to treatment, but few cases proving fatal; but during the summer of the latter year it assumed a new and giant strength, and sanitary measures were redoubled. A large Lazaretto was established in the Hôpital de St. Esprit, and a staff set apart for the treatment of cholera cases exclusively, who were not permitted to hold any communication with the outer world.

The direction of this staff was confided to a Physician and a Surgeon. In the latter capacity Dr. Ceccarelli was selected, who not only had charge of all the patients suffering from cholera who were brought from the Surgical wards of the Hospitals to the Lazaretto, but whose duty it also was to study the pathological effects of the disease in the dead body. During the four months he was confined by these duties to the Lazaretto, Dr. Ceccarelli performed no less than eighty-four autopsies, and the results of his observations on the different organs may be summed up briefly as follows:—

The skin.—In all those who died from a sudden attack of violent spasmodic cholera the entire surface of the skin was blue (cyanotique).

The cellular tissue: wanting in serosity.

The muscular system: wasted, less defined, more firm than usual.

The serous membranes: dry, shining adhesions between their surfaces.

The brain: injected state of the capillary venous system and choroid plexuses; absence of fluid in the ventricles.

The spinal cord, ganglionic system, and tenth pair hard, engorged with blood; on the other hand, the semilunar ganglion moist and spongy.

The interior of the eye: the aqueous humour diminished in quantity.

The lungs: full of black and visid blood.

The pericardium: wanting in fluid and contracted upon the heart; the left cavities of which were empty, while the right cavities were full of blood.

The organs of digestion presented a peculiar appearance. The mucous membrane was reddened in numerous patches. The stomach preserved its external form, but its size and capacity were diminished, and it obtained a peculiar consistence and thickness. The internal furrows produced by the contraction were about the size of a finger. The intestines were so shrunk as to resemble a cord, and presented many well-marked invaginations.

The liver: pale, increased in size and full of black blood, and the gall-bladder gorged with dark bile.

The urinary bladder always empty; like the stomach and all the other viscera possessing a muscular coat, it was diminished to at least one-third its ordinary size, and its internal coat was strongly ridged and furrowed.

The veins: full of ropy blood as black as pitch.

The arteries, on the contrary, contained but little blood, but it was of the same nature and consistence.

The bones presented a very peculiar appearance; they were strongly injected with a blue colour. This colour was observed also in the teeth, and yielded neither to maceration nor to boiling.

The joints contained but little synovial fluid.

The cadaveric rigidity was remarkable, and greatly exceeded what is usual.

Decomposition very slow.

Dr. Ceccarelli being desirous of leaving in the Pathological Museum of the Hôpital de St. Esprit some record of his labours, prepared several bones showing the blue colour, and also the digestive and urinary organs diminished to one-third their natural size. Some of these preparations are dry, and others preserved in spirits of wine.

After four months' continuous labour, without having breathed any other air than that of the Lazaretto, Dr. Ceccarelli was seized with cholera in a severe form. But after recovering from the more severe symptoms, there remained a choleraic diarrhœa, which continued for ten months. This yielded only to sea voyages, and still returns after exposure to sudden changes of temperature or to the influence of the south wind.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

ABSTRACT OF LECTURES ON PATHOLOGY.

By SAMUEL WILKS, M.D., Assistant-Physician to the Hospital.

Lecture I.—On Virchow's Theories.

Gentlemen,—You know that the Examining Boards do not recognise a distinct course of Lectures on Pathology, seeing that this subject is of necessity included in the regular courses of Medicine and Surgery. Ever since, however, Guy's Hospital has enjoyed the advantage of a school, a short course has always been deemed useful, in order to supplement a subject which must necessarily be left deficient in the winter lectures. These are founded upon the diseases as witnessed in the living body, which are thereupon described with their accompanying symptoms, and not taken from the changes which are accidentally discovered in the dead body. It consequently happens that some of the morbid conditions discovered in the post-mortem room, and which are evidenced by no marked symptoms during life, would not be brought before your notice unless for a few lectures of this kind. My purpose, therefore, will be to avoid as much as possible interfering with any subjects touched upon by my colleagues, but to introduce to your notice some of those more general pathological changes in the organs which have scarcely yet found a place in the nosology; such as the lardaceous and syphilitic diseases of organs, the peculiar affections of the lymphatic system, etc., together with some general remarks on new growths and tumours.

Before, however, commencing to speak of these adventitious products, it will be necessary to say a few words respecting the ultimate formation of the new materials, and especially to refer to the modern theories of Virchow. I do this the more willingly because many of the opinions which bear the name of this distinguished pathologist have been always held to a certain extent by myself, and taught in this theatre. You know that not very long ago, microscopic research opened out altogether a new view of the structure of the tissues, and histology took its place as a distinct branch of science. It was soon found that the elements of many structures are composed of cells, and that the more complex ones had their origin in the same little bodies. This was soon admitted as a fact, and has never been refuted, since any one may acquaint himself with its truth by, for example, discovering the formation of blood-vessels from cells in many morbid new growths.

Now, how do these cells originate, and why do they form different tissues in different parts of the body? In the developed body one of the commonest cases where new products are formed is that of inflammation. The general phenomena of inflammation are well known—redness, swelling, etc.—to be due to a distension of the blood-vessels, and to a new material which is thereby produced; the microscope also showing that the capillaries are distended, and the circulation through them impeded. A hyperæmic condition thus being observed, and it being also tolerably clear that the material which formed the new product is supplied by these vessels, a conclusion was at once arrived at, that the capillaries afforded the material in which the new cells were formed,—a theory which is now being attempted to be overthrown. It supposes that the capillaries exude a fluid or blastema, which is at first homogeneous, but in which granules soon appear; that these collect together in small bodies, constituting nucleoli; that around these again fresh material forms, and its surface hardening a nucleus is produced, and then again around this fresh material to complete the perfect cell. A difficulty always existed in the fact, that blood-vessels being similar in all parts, the product arising from them should vary; and theories have existed concerning the different kinds of blastema, etc. It is, however, very clear that to a certain extent the character of the new material is influenced by that of the tissue whence it sprang, and thus I have always taught how tumours are dependent in great measure on local circumstances for their characteristics. Virchow goes much further, and maintains that the cells constituting the new product are actually formed from old ones; that there is no such thing as a free-cell formation in a blastema of which I have spoken; that spontaneous generation has no more existence in the ultimate elements of the tissues than in the full-grown body; that every cell must have had a cell for its parent, or to use the pathologist's own motto, *Omnis cellula è cellula*. He does not deny that a hyperæmic condition exists, but that it is a necessary feature in the process as affording increased pabulum for the new formations; he would deny, however, that this congestion is a primary process, or that there is any action in the blood-vessels which determines the inflammatory processes,—indeed, that no congestion ever leads to inflammation. I will endeavour by a few illustrations to represent the two theories to you, when you will perceive how important is the difference of the two theories in some examples, and how slight does seem the difference in some others.

The unimportance will be seen if you consider that in both cases the material out of which the cell grows is supplied by the blood-vessels, and in both the cell puts on a particular form, owing to the presence of another of the same kind; but in the one case it has actually been produced from its parent, and in the other the sphere of influence is at some greater distance, or external to the parent: the point of departure of the new cell constituting the difference of the two theories. In other cases you will see that these doctrines imply very different processes, as, for example, in albuminuria or Bright's disease. According to the older or generally-received opinion, a congestion of the kidney is the first stage of nephritis. A hyperæmic condition of the Malpighian tuft would be first seen; that after this an exudation would occur from it, which would be poured into the tube and there coagulate as lymph, producing a simple lymph cast; that subsequently cell elements would be formed, and you would then have casts of cells imbedded in lymph; after this the cells might become granular or fatty, and thus would be produced other forms of casts with which you are familiar.

According to the theory of Virchow this is not correct, for the primary process takes place in the secreting cells of the tubules,—that these become swollen and filled with granular contents. This starting-point in the process you will see is altogether different from that generally received; but the fact is one which you may often verify for yourselves by an examination of the kidneys of patients who have died of scarlatina, diphtheria, etc., when all you will find is that the tubules are

dark or quite opaque from the excessive granular contents in the epithelial cells, whilst the Malpighian bodies show no change; and yet sometimes you will discover a simple lymph cast like a transparent glass rod, both in the kidney itself, and as casts in the urine, and which can be scarcely anything else than exudation from the blood-vessels. Take, again, pneumonia,—this was thought formerly to consist of an inflammation of the parenchyma of the lung, whereby an exudation took place into the interstitial tissue. The modern theory is that the material is formed in the air-vesicles, and, according to Virchow, I apprehend that its source would be the lining membrane of these spaces. In the case of simple inflammation in the areolar tissue, an exudation does not take place from the vessels, and cells spontaneously arise in this; but the lymph and pus cells are generated from cells previously existing in the areolar tissue. Thus it is that suppuration can occur in all parts and all organs of the body, since areolar tissue is almost universally present. This is so important a point with Virchow that his whole theory rests upon or falls with it; and it not being generally admitted that this tissue does contain cells, as this pathologist describes, it will be seen how this doctrine constitutes the principal ground of debate.

An important point arises out of this difference of theories in reference to the changes which take place in the non-vascular parts. You know that at one time, if a cartilage, the cornea or interior of the heart and arteries, showed a breach of surface as a consequence apparently of changes such as occur in inflammation, the term ulceration was employed to designate it; but of late, owing to the doctrine that all inflammatory processes are preceded by a congestion of the blood-vessels, it was denied that inflammation could take place, for where there were no vessels, there could be no inflammation. The term "degeneration" was therefore used to designate the fatty and fibroid changes which took place in the cartilage. If, however, it be true that the primary changes in every tissue take place in the cell itself, and the distant blood-vessels merely supply the pabulum for the new material which may be formed, then the case of cartilage is not very different from that of other tissues, and the term "inflammation" is as applicable to this case as to that of others. It would be a desideratum certainly if we could go back to the older terms, "inflammation" and "ulceration of cartilage," etc. So, again, with the lining membrane of heart and arteries, it has been said that these parts cannot inflame, seeing that they are not vascular, and that the vegetations we find on their surface are derived from the blood; but since this membrane is composed of epithelial cells, the modern doctrine can allow changes to go on within them as elsewhere, and a propagation of new cells from the old.

Another important feature in the theory is, that it removes the distinction, in a great measure, between physiological and pathological processes, and this, to a certain extent, we must admit, is in the direction of truth. For instance, if we look to the mucous membranes, we find a constant production of cells from their surface in a state of health; and in a state of disease we merely find the same cells in an excessive amount. This is seen in bronchitis and enteritis. According to Schwann's idea of a free-cell formation, this pathological condition would have been altogether different, as originating in an exudation taking place from a hyperæmic state of the membrane; whereas, according to Virchow, this excessive secretion is a mere growth from the healthy epithelium. The difference, then, between health and disease is one rather of degree than of kind. He might, indeed, admit a theoretical difference in the form of a pus and mucous cell, but he would fail to show it. So in the skin, as a formation of epithelium is always occurring as a growth from cells beneath, it is merely an excess of this process which would constitute a psoriasis or an ichthyosis. That this must be his idea is seen in an illustration he gives, showing the resemblance between a fatty degeneration of the liver and the natural secretion of milk, or absorption by an intestinal villus. In the case of the mamma, we imagine an involution of the primary membrane, which again dividing and dividing into branches, constitutes the ducts of the gland; that in the extremity of these, cells are constantly formed, holding fat or oil globules, which, when full, burst and pour out their secretion into the ducts. In the liver, which is formed in a similar way, the cells become charged with fat, and may then sometimes rupture, in like manner to the mammary secreting cells.

As to the comparative excellence of the two theories,—the older free cell formation arising in a blastema, and that of cell growth,—I should not like to decide, seeing that there is much truth in both. My own opinion has not been much altered by the consideration of Virchow's views, since I already hold many views in common with him, as, for example, that like produces like; and that the new growths occurring in any part are influenced in their character by the tissue whence they spring. As regards, however, the statement that cells cannot arise in a free blastema, I cannot altogether admit it, or that simple exudations do not occur; for we see these on serous surfaces, and in the case of lymph casts in the kidney as already mentioned. There are also exudations of other characters, as the lardaceous, which under the name of amylaceous bodies may be styled cellular, but in their ordinary guise exhibit no cell formations. The main feature, too, in Virchow's theory, that pus, which we know may be readily formed in various parts of the body, has its origin in the cells of the connective tissue, depends upon the fact whether the existence of such cells is founded on truth or not. Then, again, his statement that if congestion were the first process in inflammation, that this condition, however produced, ought always to give rise to inflammatory results, which he says it does not, is scarcely borne out by facts; for in heart disease where the stagnation is very great, we do find those changes which according to his own showing can be called no other than inflammatory; for example, with congestion and apoplexy of the lung, pneumonia is not uncommon; and as regards the mucous membranes of bronchi and gastro-intestinal canal, a condition is often seen which exceeds in its excessively marked characters any common inflammation. The lining of the bronchial tubes is brightly red from capillary congestion, and at the same time is covered with thick purulent secretion; in the same manner the stomach is more vascular and more covered with tenacious mucus than is seen after the operation of many irritant poisons. In the case of the kidney, too, in cardiac disease, it is well known that during life it is often a question whether this organ be independently affected or not, seeing that the urine is albuminous and deposits tubular casts; and on examination of the organ itself, it is exactly in the same condition witnessed in the early nephritis of albuminuria or scarlatina; and yet a congestion seems to have been the starting-point of the inflammatory change.

You will see, therefore, that many objections arise against a ready reception of Virchow's theory, and time alone will prove whether it be true or false. Do not suppose either that his doctrine of cell producing cell will in any way account for the different character which cells put on, for he admits that cells of very different forms and qualities have the same origin; for example, he would make a pus, tubercle, or cancer cell arise from the same connective tissue, but would not show why they differed; whether from a local influence alone, or something in the material of the blood which supplied their food for growth; and yet this question is above all others most important to determine, for upon it depends the treatment of cancer and new growths. If arising from a general constitutional cause, it is fruitless to remove them, whereas if due alone to local influences, an operation cannot be too early performed. We will then leave this question as to the origin of cells, and proceed to speak of their characters under different circumstances, and the general doctrine of new growths.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

ADHESION OF THE EYELIDS TO EACH OTHER AND TO THE EYEBALL—SUCCESSFUL OPERATION FOR THE ADAPTATION OF AN ARTIFICIAL EYE.

(Under the care of Mr. HULKE.)

Owing to the difficulty, or even impossibility, of preventing reunion after division of eyelids which have grown together, and more particularly after separation of adhesions of the eyelids to the globe of the eye, most operations undertaken for the relief of these defects have failed. In the present case the plan of covering the raw surface of the globe with a flap borrowed from the adjacent healthy conjunctiva, which has been so successfully practised by Mr. T. P. Teale, jun., was advantageously followed, and the reunion of the eyelids was prevented by sewing the conjunctiva and skin together along

the newly-restored palpebral fissure, just as is done with the buccal mucous membrane in atresia oris.

Charles A., aged 23, was admitted into the Royal London Ophthalmic Hospital on May 28. The edges of the upper and lower eyelids of the right eye adhered to each other in their outer two-thirds; their inner third was free, and here, by a strong effort, they could be separated to the extent of one-eighth of an inch. Through this aperture it was ascertained with a probe that where the eyelids were adherent to one another, they were also tied to the eyeball; but this union was narrow, corresponding only with the line of the palpebral fissure, and not involving the upper and lower sinuses of the conjunctiva, which were free. The globe was much shrunken, and the cornea was replaced by scar tissue. A squib thrust into the eye a few months before his admission had produced these deformities. Mr. Hulke divided the eyelids with a scalpel along the linear scar which marked their junction, and also detached them from the globe, restoring to the palpebral fissure its original length; he then, with very fine silk, sewed the palpebral conjunctiva to the skin of the lid at several points. A broad band of conjunctiva, found stretching between the outer side of the globe and the outer canthus, was left to be dealt with subsequently, and a glass shield was introduced to support the eyelids and keep them from the globe. The skin and conjunctiva united, and the palpebral fissure having become established, the frenum, which would have prevented the outward movement of an artificial eye, was divided, and the resulting raw surface of the globe was covered by sliding over it two flaps borrowed from the adjacent conjunctiva bulbi. This in a great measure succeeded, and when cicatrization was complete, an artificial eye was fitted, which follows very freely the upward, downward, and inward movements of the left eye. Its outward range is rather less extensive. The eyelids open as readily as those of the left eye.

KING'S COLLEGE HOSPITAL.

TWO CASES OF EXCISION OF ANCHYLOSED KNEE-JOINTS ON ACCOUNT OF DEFORMITY.

On Saturday, June 14, Mr. Fergusson made the following remarks *apropos* of a case of anchylosis of the knee-joint, on which he performed the operation about to be described :—

The patient was a man, aged 26, who had had disease of the right knee-joint seventeen years ago. The disease had got well in a way, and would no doubt be said by some Surgeons to have been "cured." Many patients, as in this case, do not think such a cure much to boast of, as the leg is, in fact, more an impediment than of any real use. The limb was much bent under him, and the patient was anxious that something should be done to make the leg useful.

Of course there was no doubt that the disease had ceased, and what was left was the deformity caused by it, and this was what he was now about to treat—the practice of treating deformities the result of disease becoming more common as Surgery advances. The operation he was going to perform was first done by Dr. Barton, of America. This Surgeon pointed out that in certain cases where there was deformity from anchylosis after disease of the knee-joint, the limb might be much improved by taking out a wedge-shaped piece of bone and straightening the limb by bringing the cut ends of bone together. By this means a limb might be made useful, which before the operation was an incumbrance. The piece removed was partly the end of the femur, and partly the end of the tibia; but practically it was one bony wedge, the amount of movement being very little. The operation, although it might seem easy, was not done so readily as might be imagined; it was more difficult than resection, in which opening the joint renders it easy to saw off the ends of the bones, whilst in this a single wedge had to be cut out. In this case, after removing the first wedge-shaped piece, it was necessary to saw off another thin slice from the upper end and a very thin one from the lower, and to enable him better to adapt the cut ends of the bone, he divided the tendon of the biceps.

Mr. Fergusson directed attention to the want of development of the limb on the affected side. It had become the custom, he said, to talk freely and very physiologically and philosophically, as is imagined, on the arrest of development after removal of the epiphysis in resection of the knee-joint, forgetting that resection is done instead of amputation, which is a complete and final arrest of development. He was aware that after excision there was some arrest of development. But in this case, in which the disease had been allowed "to get well," the leg was, he felt sure, not half the weight of the other. As to shortening the limb, it was better, he considered, that the foot should be within six inches of the pelvis than that, as after amputation, there should be no foot at all.

The following are the particulars of a nearly similar case, as furnished to us by Mr. Clarke, the House-Surgeon in charge of the patient :—

Charles W., aged 18, was admitted into King's College Hospital on April 1, 1861. At this time his left leg was contracted on the thigh, the tibia was dislocated backwards, and the whole leg and foot were rolled outwards. There was no movement whatever in the joint, the bones appearing to be firmly anchylosed together. When the two limbs were measured, from the trochanter major to the external condyle, and from that point to the sole of the foot, it was found that there was no difference in their length, though the muscles of the left leg were thin and wasted.

On May 7 he was put under the influence of chloroform, and Mr. Fergusson excised the knee. The only point in which the operation differed from that usually performed was, that the end of the femur, the patella, and a slice of the tibia, were all removed in one piece, owing to the union which had taken place between these bones.

The case progressed most favourably, and on the 29th the leg was put up in a plaster of Paris splint, which extended from the middle of the thigh to the ankle, a space being left at each end of the wound, where it was still discharging a little. The lad was now able to get up and walk about the ward, the leg being slung up with a bandage.

On the 15th he was discharged from the Hospital. Since then he has often shown himself. The wound healed without the least difficulty, and he is able to walk firmly and well on the left leg. It is about two inches shorter than the other.

THE LONDON HOSPITAL.

CALCULUS VESICÆ IN AN OLD MAN—LITHOTRITY—LITHOTOMY—RECOVERY.

(Under the care of Mr. MAUNDER.)

John P., aged 71, had enjoyed good health until within the last twelve months, when symptoms of stone set in, and becoming aggravated, he entered the Hospital in October, 1861, to be submitted to lithotrity. This operation was performed once, but being followed by acute cystitis was not repeated. The patient returned to the country for three weeks, and then re-entered the Hospital to undergo lithotomy. The lateral operation was performed, and the stone, now consisting of five pieces, was removed by the scoop.

The patient recovered slowly, but without any untoward symptom, and left the Hospital well. Two months later he returned, and the sound detected the presence of more calcareous matter in the bladder, but the patient refused to submit to operation.

Notwithstanding the advanced age of the patient, Mr. Maunder deemed the case to be favourable to lithotomy, inasmuch as symptoms of stone had existed a short time only, and, therefore, the kidneys might be deemed to be free from disease; the urine also was devoid of albumen. The occasional rapid recurrence of stone in the aged, as in this instance, should be remembered in the prognosis.

University of Dublin.—Medical Scholarships and Exhibition.—On Thursday and Saturday, June 26 and 28, the Examinations for the Medical Scholarships, value £20 per annum, tenable for two years, and for the Annual Junior Exhibition given by the Professors, were held in the New Buildings, Trinity College. Three Scholarships were awarded, the names of the successful candidates being, in the order of merit, Mr. G. Duffy, Mr. J. Finney, and Mr. R. Walker. Mr. Walter Smith obtained the Exhibition. The subjects of examination were in each case the same, comprising Anatomy, theoretical and practical; Physiology; Chemistry and Chemical Physics; Materia Medica, and Botany.

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Medical Times and Gazette.

SATURDAY, JULY 12.

MEDICAL ADVERTISING.

Every man who has to live by physic must make himself known somehow, and the different modes by which the desired notoriety may be compassed, are worthy of notice by the student of Medical men and manners.

The simplest, most inconspicuous method is that of men who rely on a knowledge of their Profession, and on a good character, good sense, and good manners; and without taking any particular pains, allow their reputation to spread from one patient to another. It is by simple means like these that men have realised large fortunes in general practice. If men of this stamp aim at consulting practice, and desire to have the Profession and not the public (in the first instance) for their clients, they become known as zealous workers in the Hospitals, and diligent teachers; they publish the results of their labour in some *Transactions* which the eye of the vulgar never sees; and somehow or other, without their seeming to take special pains for the purpose, fame and practice come to them.

But it is not every one who has the patience and solidity requisite for such a career as this. There are some persons who wish to make a speedy reputation, and so as they come before the public do not much care how it is done. The ways of attaining this end are manifold; but we will only notice one at present, which may be called the "Book Dodge."

By the "book dodge," we do not mean the publishing and advertising a book legitimately and simply. A man who has anything important to say is bound to publish, and if a book be published, it must be advertised in order that readers may know of its existence. But we refer to persons who write books although they have nothing to tell us, and who advertise, not so much to promote the sale of the book, as to let the world know of the existence of the author. We want new books sadly. How eagerly should we welcome fresh volumes of researches on diabetes, phlegmasia dolens, epilepsy, and other ill-known and intractable maladies; but the perpetrators of the "book dodge" rarely venture on untrodden ground; the more hackneyed the subject the better it suits them; and we are never without new books on advice to young mothers, treatises on "tops and bottoms," and the other mysteries of the nursery, or on piles, gonorrhœa, nervousness, debility, dyspepsia, and phthisis.

But it is not merely the writing and advertising bad, stupid books that we refer to. Good books may be advertised excessively and offensively. The true purpose of an advertisement should be to sell the book. But members of the Medical Profession are not great buyers of books, and any that are worth purchasing are usually advertised sufficiently in the Medical journals. But advertisements in Medical journals alone evidently do not answer; and the columns of the general newspapers must be resorted to. If the sale of a book bore any proportion to the number of times it was advertised, some curious conclusions might be established as to the tastes of our educated classes. It might be shown statistically, that their favourite works treated of the disgusting and the horrible; and that instead of poetry, fiction, or science; instead of the works of the "divine Williams"—as a Frenchman called Shakspere—or Milton, or Spenser, Pope, Addison, Walter Scott, Dickens, or Tennyson, the English reader revels in descriptions of deformities and distortions, or of piles, prolapse, and fistula (with plates); and respectable families may be supposed to beguile their winter evenings with practical treatises on diseases of the urinary organs (with plates). There are reasonable limits to advertising books; and we suspect that the shrewd public will soon learn to look on reiterated announcements of Medical books in the *Times*, as being pretty much like the direct appeals for the honour of their patronage which are issued by common tradesmen and servants out of place.

THE WEEK.

SYSTEMATIZED GYMNASTIC TRAINING FOR THE MASSES.

The English people have determined that their population shall not grow up in ignorance and vice. To this end they have established National Schools. In order that the body may not grow up awkward or enfeebled, it is now proposed to superadd physical to mental training. The subject was brought before the House of Commons on Tuesday evening by Lord Elcho.

"The advantage of physical training," he said, "had been acknowledged from the earliest times. In Greece and other ancient countries it was diligently practised. In the earlier periods of English history, too, schoolmasters were obliged by law to have bows and arrows in order to teach the youth to shoot, parishes were assessed for the purpose, and much attention was paid to those manly exercises which made the English archer able to defend his home, and to carry his arms successfully on the Continent of Europe. Roger Ascham, the tutor of Queen Elizabeth, spoke of shooting as a pastime 'wholesome for the body and honest for the mind,' and testified that some of 'the best learned bishops' of his time were skilled in the art. Though the spirit of those by-gone times still survived, as might be seen from the fondness of the English people for various kinds of manly sports, yet it should be borne in mind that, as a system of national education, anything like attention to the physical training of youth did not exist. But it was especially with regard to the necessity of physical training for the pauper population of the country that he wished to call the attention of the House. Through the energy and ability of Mr. Tufnell, the district inspector of the London Union, there had been established in the schools under his jurisdiction a system of military drill, of which from five to six thousand of the poor children in the neighbourhood of the metropolis were now deriving the benefit. He had himself visited a school in which children of the very lowest and most criminal class, many of them stunted in growth and naturally scrofulous, were being educated, and it was really astonishing to see what tidy, obedient, orderly, and respectable boys the military training to which they were subjected made them. He saw them go through their drill, which they did with the greatest precision, and he afterwards called out one of the boys, who commanded a company, and asked him to drill the remainder, and he did it admirably. Besides military drill, music was also taught to these boys, who, in consequence, were enabled on quitting school to obtain almost immediate employment as musicians in the army. Naval drill, too, was taught, and in the union-yard a mast, fully rigged, with sails, ropes, and spars, was erected, and the boys of the naval class were exercised in doing everything which sailor boys should do. They furled and unfurled the sails, stowed them away, and ran about the rigging like monkeys. The result was that these district boys from the pauper Workhouses of London got higher wages when they went to sea, than boys two years older coming from seaport towns. The evidence given before the Royal

Commission on Education went to prove that the trained schoolboys were prompt and punctual as compared with the other boys, and it was calculated that if the system of drill prevailed in all the schools, one-fifth would be added to the value of the labour of the country. The boys, moreover, were rendered more apt, disciplined, and obedient. Now, it was objected to a scheme such as that which he proposed, that it would take away boys from the games of cricket and foot-ball, but in answer to that argument he would simply say, that the time which would be required to carry out the object which he had in view would not amount to more than one hour a-week, while in reply to the argument which was urged on the score of expense, he might observe, that the cost of drill in the district schools to which he had adverted, did not amount to more than 1d. a-week per head, and that sum might, he thought, very properly be spent by the ratepayers, or whoever else would have to pay it. He trusted, therefore, the House would not hesitate to stamp with its approval the system which he advocated, and begged to move,—'That the physical, moral, and economical advantages arising from a system of physical training have been clearly shown in evidence before the Royal Education Commission. That it is expedient for the increase of the bodily as well as the mental aptitudes of children for civil, industrial, as well as for possible military service, that encouragement and aid should be given for the extension of the practice of systematized gymnastic training, and for teaching military and naval drill as now practised in the district half-time schools for orphan and destitute children, and in other schools for pauper children.'"

The motion was objected to by Mr. Lowe, on the ground of expense.

THE TREATMENT OF CHOLERA IN INDIA.

In the House of Commons, on Tuesday evening, Sir F. Kelly presented a petition from David M'Loughlin, M.D., Member of the Legion of Honour, alleging that cholera has never been scientifically treated in India; that the Medical Practice adopted in India is contrary to the known pathology of the disease; and praying for a Select Committee of Inquiry or an address to the Crown for a Commission to inquire into and report upon the whole subject.

THE ANTAGONISM BETWEEN LAW AND MEDICINE IN INSANITY.

The recent discussion in the House of Lords on the Lord Chancellor's Lunacy Bill has elicited from Professor Laycock a temperate and well-argued discourse on the opposed grounds assumed by Law and Medicine in relation to insanity. His *brochure*, which was originally delivered as a lecture introductory to a course on the Theory and Practice of Mental Diseases and Defects, furnishes at once a sufficient answer to the one-sided reasoning of the Lord Chancellor and some of his supporters, and a dignified censure of the vapid obloquy which was so plentifully launched on that occasion against the Medical Profession. It is unnecessary to recapitulate the arguments by which insanity is proved a disease in contra-distinction to a mere fact; they will at once present themselves to our readers. It is enough to say that Professor Laycock has enforced the physiological and pathological lines of reasoning, and that derivable from the results of treatment, ably and conclusively. He shows the source of fallacy in the proceedings in the Windham case to have been the circumstance that the law draws no distinction between unsoundness of mind—*i.e.* insanity—and incompetency or imbecility; and he well illustrates the validity and practical bearing of the distinction when he asserts that the question which Medical science and common sense should have been called on to try was, not whether Mr. Windham was unsound of mind, the affirmative of which could not be supported, but whether he showed such incapacity of judgment that his minority ought to have been prolonged. The results of legal pathology are further illustrated by the case of George Clark, the Newcastle madman, who stabbed a tax-collector because he had distrained his tools for the non-payment of a dog-tax, and who was sentenced to death in accordance with the dictum of the Judges, that "If a man had a delusion, and killed another in consequence of it, if that delusion would not in law justify a sane man in seeking vengeance, neither in law would it justify an insane man." The Judge who tried the case joined with the inhabitants of the town in memorializing the Secretary of State on the ground of the man's patent madness, and the sentence was commuted to *penal servitude for life*. One of the most pregnant portions of Professor Laycock's lecture is that in which he illustrates the dire effects, not only to the insane, but to society at large, of the stigma which is at present attached to seclusion on account of mental disease. Attention is directed to the influence which the speeches in the House of Lords must have in increasing the chances of litigation to which the Profession is exposed when signing certificates of lunacy. "Already is this persecution of the Practitioner in the exercise of a thankless and painful duty operating most injuriously on the welfare of families by interfering with the early removal and treatment of the insane." Without committing ourselves to the approval of every position assumed by Dr. Laycock, we think he has succeeded in completely establishing the thorough validity and reasonableness of the Medical view of insanity, and in completely refuting the charges to which our Profession has been subjected.

THE NEW CORONER FOR THE CENTRAL DIVISION OF MIDDLESEX.

We congratulate Dr. Lankester, we congratulate the Profession, we congratulate the freeholders of Middlesex on the result of the late election. The scrutiny demanded by Mr. Lewis after the close of the polling has resulted in giving Dr. Lankester a clear majority of 47 over his opponent. Thus, in the most important Coroner's district in the whole Kingdom, the principle has been vindicated that Medical science is *par excellence* the qualification which can enable a public officer to inquire into the causes of violent and accidental death. We trust for the benefit of society at large—on the ground of the obligations which public safety owes to science—that this principle will never be allowed to fall into abeyance. Let the electors of the Western division imitate those of the Central, and by placing Dr. Mushet in the position which Dr. Lankester has so honourably attained, evidence the same intelligent appreciation of their own interests. It must be borne in mind that the triumph of Dr. Lankester is no mere personal matter. He has fought and won a battle in which the Profession of Medicine was directly interested. Henceforward an honourable and worthy field is more than ever open to the ambition of Medical men. Had a lawyer been the successful candidate, the triumph gained by the election of the late Mr. Wakley would have been a mere thing of the past,—a guerdon paid to the liberal Member for Finsbury, rather than a proof of the confidence with which society can commit its safety to the hands of those who are specially trained in the science of life and death. Dr. Lankester came forward as no political adventurer,—he took his ground as a scientific Physician,—this was the claim he urged on the electors of Middlesex; this is the claim that they have recognised, and in his person the Profession of Medicine has received the most substantial proof of public reliance. We, therefore, feel justified in asking our Medical brethren not to allow the whole of the expense of a contest in which their interests have been most deeply engaged to fall on Dr. Lankester. Let them spontaneously come forward and demonstrate by no niggardly contribution that the Profession of Medicine will not allow a man single-handed to uphold its honour or assert its claims.

THE TRIAL OF MRS. VYSE.

"Not Guilty, on the ground of insanity," is the verdict in this

deplorable case. The evidence for the defence clearly established strong hereditary predisposition, and the existence of great mental depression since the loss of one of her children, together with the occurrence of fits of passion which might reasonably be construed into paroxysms of insanity for some time previous to the catastrophe. Mrs. Vyse's grandmother attempted to strangle herself, her uncle committed suicide, and several members of her family have been placed under restraint on account of mental disease. In more than one of these instances the attack had been caused by grief at the loss of a relative. What a terrible but pregnant lesson is this! Temporary seclusion and judicious Medical surveillance would certainly have preserved two lives, and might probably have restored to society a useful member.

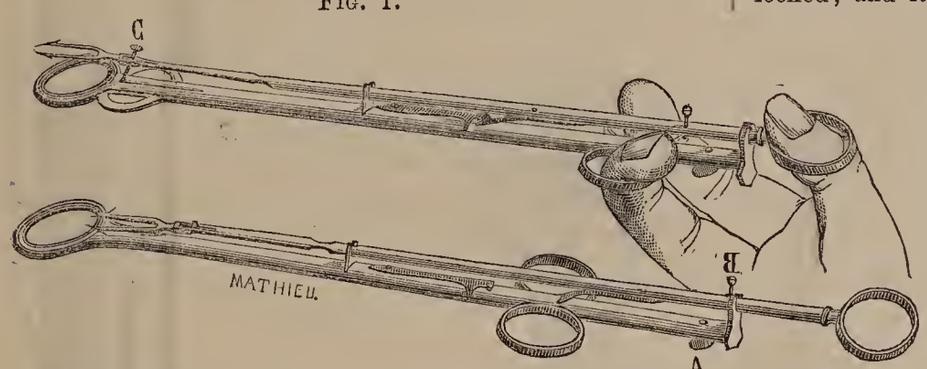
NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

In my notice of this week it is my intention to commence a description of some of the instruments exhibited by M. Mathieu. This maker's reputation is already so extensive and so well deserved that I feel it is hardly necessary for me to add a word in praise of the skill and perfection of manufacture which he brings to bear on the construction of Surgical instruments. Among the contents of his case will be found his amygdalatome, which I believe is generally well known. In the lower illustration of Fig. 1 it is seen as prepared for

Fig. 1.



use; in the upper one, the fork which holds the tonsil is shown in its proper position, and the circular blade is supposed to have been drawn back and to have removed the diseased gland. This ingenious piece of mechanism is very easily taken to pieces to be cleaned, and is used entirely by one hand. Notwithstanding its cleverness, and the wonderful dexterity with which some of the Parisian Surgeons employ it, I—and I dare say most other English Surgeons—prefer a simple bistoury and forceps. With these the direction of the incision made and the amount of tissue removed can be controlled entirely by the operator; whereas the surgical guillotine of M. Mathieu necessarily limits the operation to a mere automatic proceeding.

Figures 2 and 3 represent the instrument devised by Langenbeck for employment during the operation of tracheotomy. It consists (Fig. 2) of a double tenaculum (c c′), the blades of which can be kept separated by the screw (b). The trachea is seized by the instrument, after it has been exposed in the ordinary way, and held fixed while it is being divided. The cut edges are separated (Fig. 2) by pressing the handle (a), and the canula is then introduced, the trachea having been held favourably in position by the tenaculum during the whole operation.

The instrument devised by M. Leroy d'Etiolles for the extraction of foreign bodies, such as pieces of catheter, etc., from the bladder, is shown in Fig. 4. It somewhat resembles that which I described a fortnight since, when speaking of the contents of M. Charrière's case. It is introduced into the bladder in the state represented by the smaller of the two illustrations, and the small hook is thrust out by pushing the extremity of the central rod (b). The foreign body is then seized, and, by the withdrawal of the rod (b), is forced to assume a direction that coincides with the axis of the instrument. This condition of things is represented in the other drawing, and, under these circumstances, it can be extracted without tearing or otherwise injuring the tissues.

Fig. 5 is a representation of the instrument imagined by M. Mathieu for the extraction of hair-pins from the female bladder. The introduction of hair-pins into the bladder in pursuance of a morbid propensity, is not a fact of very rare occurrence; it is one of considerable annoyance to the Surgeon, and the instrument to which I am referring seems well calculated to diminish his embarrassment. It consists of a straight canula which carries a central rod terminating in a hook, and furnished for a great part of its length with rack-work. The hair-pin is seized by the hook and brought close and at right angles to the extremity of the canula; by now working the rack and pinion it is bent and forced to enter the tube, and is withdrawn through it. This latter is then removed, and the operation is completed. The different positions assumed by the foreign body are shown in the illustration, which, indeed, explains itself.

The trocar and "tube à drainage" of M. Chassaignac are represented in Fig. 6. The vulcanised india-rubber tube, which is pierced with a series of lateral holes, is introduced into the canula after it has traversed the abscess, and left, like a seton as it were, when the canula is withdrawn. Pus flows freely through these tubes, and I believe that many cases of large chronic abscess have been successfully treated by them.

Fig. 7 represents the forceps invented and employed by M. Nélaton for breaking up calculi that are found to be too large for extraction through the wound made in the operation of lithotomy. The instrument consists of a strong pair of forceps (articulated like the obstetric instrument), whose blades seize the stone, which is prevented from slipping by the teeth which exist at their extremities. Each blade is introduced separately into the bladder, and they are then locked; and it will be seen by reference to the illustration, that the narrowest part of the instrument is on the level of the incision. This pair of forceps is sufficiently strong to crush certain large calculi by the simple pressure of its handles; but to successfully reduce in size some of the harder varieties of stone, the central portion (d) is added. This is a perforator terminating in the manner shown at a, which is driven into the calculus by rotating the handle, the two blades of the forceps being kept in contact by the screw (c), and the whole instrument steadied by one or two assistants holding the handle (e), to which there should be a fellow at the opposite extremity of the horizontal bar. The advantages of this instrument are the following:—1stly, that in consequence of the shape of the forceps, the stone cannot escape from its embrace; 2ndly, that the dimensions of the instrument allow it to be introduced through the ordinary perineal wound; and, 3rdly, that its strength is sufficient to break up any calculus likely to be found in the human bladder.

Of the different instruments constructed for the passage of ligatures in deep cavities, such as the mouth, vagina, etc., none is more simple and ingenious than that of M. Mathieu. It consists (Fig. 8) of a curved metal rod, which traverses a canula, and which, at its extremity, receives a moveable needle-point in the way indicated in the illustration (a, b). To employ it, the thread is passed through the eye of the needle, which is then to be adapted to the instrument; one edge of the wound is then pierced, and the needle-point separated from the handle by pushing the small disc (c). It is drawn forward, attached again to the handle, and the same proceeding is executed on the other edge of the incision. Hence it will be seen that this is a very simple instrument, and one which thoroughly fulfils the requirements of the operator, and I may add that it has been employed with advantage in cases of vesico-vaginal fistula, staphyloraphy, etc., by MM. Nélaton, Laugier, Richet, Jobert de Lamballe, and other Parisian Surgeons. Needle-points are carried at the other end of the instrument (d), which is made of different curves by M. Mathieu, one of which, inclined from right to left, is shown at e.

I shall allude to one more instrument (Fig. 9) manufactured and exhibited by M. Mathieu, in my notice of this week—

Fig. 4.

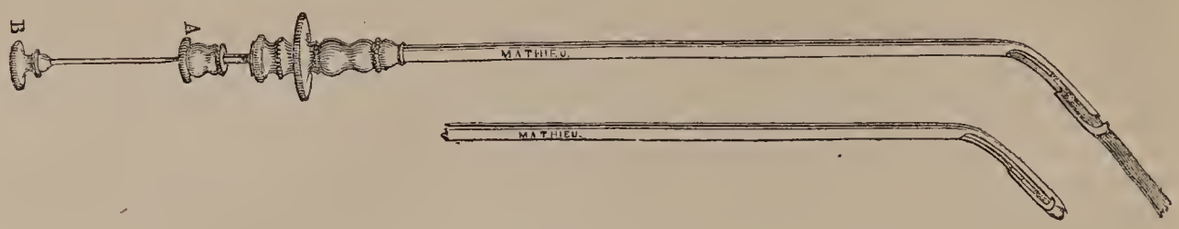


Fig. 2.

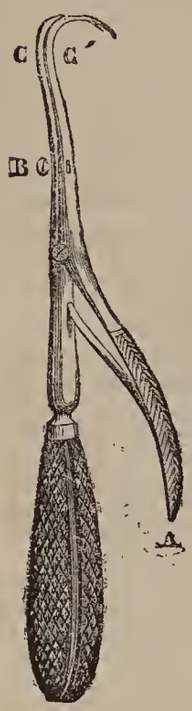


Fig. 5.

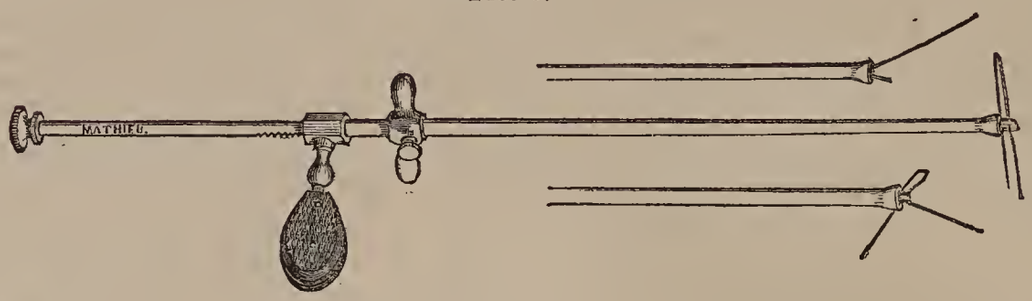


Fig. 6.

Fig. 3.

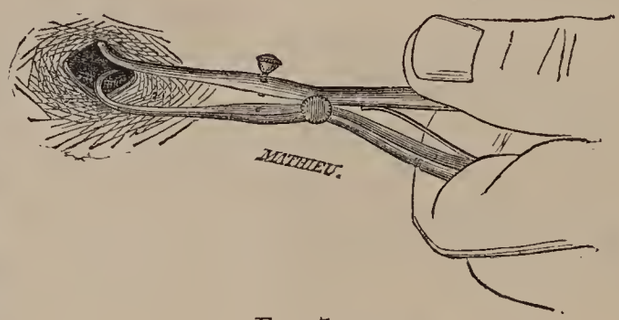


Fig. 9.

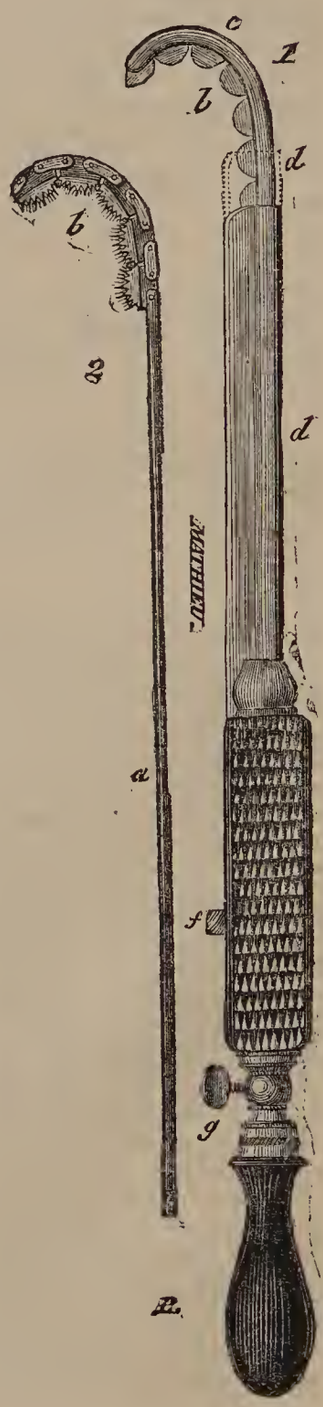


Fig. 8.

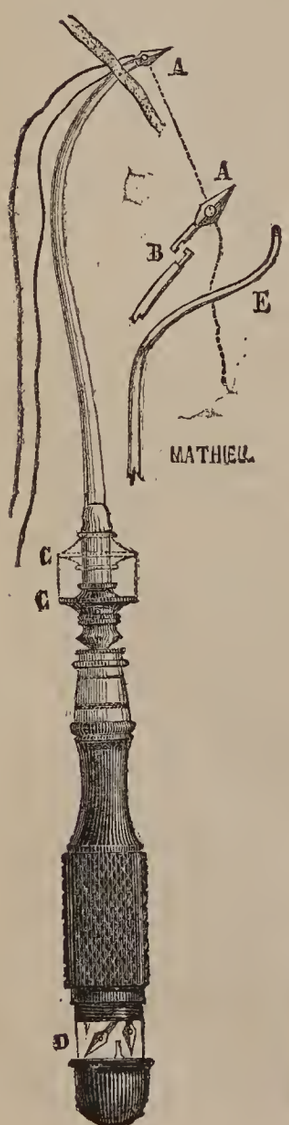
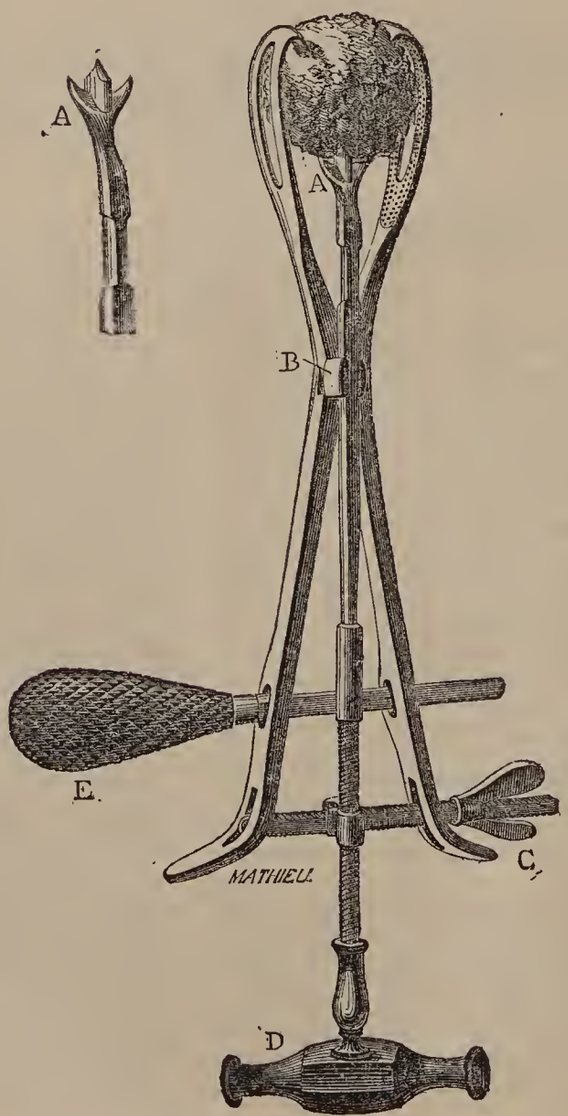


Fig. 7.



viz., the embryotome of M. Jacquemier. It is destined for cutting through the neck or trunk in cases where the fœtus is dead and version is impracticable. It is by no means complicated in its action, although it consists of several pieces, viz., (1) a blunt hook, grooved throughout its whole length in a sense corresponding to its curve; (2) a rod, terminating in a handle (*g*), fixed by a screw, which slides easily in the groove of the hook, and is furnished (at *b*) with a series of articulated blades, the convexity of which projects to a certain distance; (3) a second rod (B), which can be made to occupy the place of the former without removing the hook, carrying (*b*, Fig. 2) instead of simple convex blades, small portions of chain-saw, with their edges turned outwards, so as to produce an incision through which the curved portion of the hook could easily pass; and (4) a moveable sheath (*d d'*) that can be pushed as high as the commencement of the cutting part of the instrument, and thus be made to protect the vulva, vagina, the orifice of the uterus, etc. In consequence of a peculiar mechanical arrangement (Fig. 1) the terminal blade can be extruded beyond the end of the hook, which is thus rendered sharp, and fit for employment in those cases which require such an instrument.

If the handle of the hook be held firmly in one hand, the other can, by grasping the handle of the central rod and moving it rapidly to and fro, divide by means of the cutting edges already referred to, all the soft parts embraced by the curve of the hook.

The instrument unencumbered with its central rod, and even its protecting sheath if necessary, is passed into the uterus, and placed in its proper position like an ordinary blunt hook. When the sheath has been introduced until it is arrested by that portion of the fœtus with which the hook is in contact, the rod with its articulated cutting edge is pushed as far as it can be made to go, and by the to and fro movements already alluded to, the neck of the fœtus is divided. This instrument is taken to pieces easily, and each part can be separately and thoroughly cleaned.

I am informed, as the result of numerous experiments, that the embryotome of M. Jacquemier fulfils its purpose well. The simple convex cutting edges divide the soft parts easily and rapidly, while the saw takes some little time to get through the bones. This latter part of the operation requires some practice with the instrument; the important point being to avoid so much pressure of the hand which holds the hook, as is likely to embarrass the movements of the saw.

I shall recur to some more of M. Mathieu's instruments in my notice of next week.

47, Hans-place, S.W.

REVIEWS.

Consumption, its Early and Remediable Stages. By Edward Smith, M.D., L.B., F.R.S., Assistant-Physician to the Hospital for Consumption, etc. London: Walton and Maberley. 1862.

The Medical Profession do not require to be told that tubercular deposits in the lungs are preceded and caused by a deteriorated condition of vitality, and that therefore there is a pre-tubercular stage of phthisis. For ourselves, we do not know a Professional man who would express the slightest doubt on the subject. Many, however, will doubt whether the evidences which Dr. Smith enumerates as characterising his first or pre-tubercular stage, may not be one and all signs of the existence of tubercle. The only difference which we detect between the signs of Dr. Smith's pre-tubercular stage and those which frequently characterise the early stage of tubercle, is that, according to the author, in the former the expiratory murmur is natural, whilst the inspiratory is short and weak. Skoda long ago said that in miliary tubercular deposit, the expiration instead of being prolonged might be altogether inaudible, and we are sure that tubercles may exist without any remarkable lengthening of the expiratory sound. For the rest, Dr. Smith enumerates shorter breathing, less breath-motion, feeble and shorter inspiratory sounds, particularly the vesicular sounds, which may be more or less general over the whole of both lungs; a diminution of the quantity of tidal air in ordinary breathing; general indications of atonicity and malnutrition; perhaps an increased rate of pulsation and respiration, probably flattening of the chest, depending either upon original conformation, or upon the progress of the disease—probably, also, dulness on percussion—perhaps cough, perhaps hæmoptysis. This category of evidences of the pre-tubercular stage of phthisis was first introduced by the author in a paper on the "Principles and Treatment of Chronic Phthisis," but as he has republished it in the present work, we conclude that he holds the above associated signs to be indicative of a condition preceding structural change in the lungs. If so, we disagree with him,—not in the fact that there is a stage of ill-health preceding the deposition of tubercle, but in the belief that he has described and limited it, or added to our knowledge respecting it. Everybody who uses the stethoscope knows that weak and indeterminate vesicular murmur is as recognised a sign of the existence of early tubercle, as is harsh or divided inspiration. If Dr. Smith's is a true description of the signs and symptoms of a condition in which tubercle is going to be but is not yet deposited, we ask in the name of common observation, What are the signs and symptoms which must be superadded to prove the existence of tubercle?

In these remarks we wish to be quite fair to Dr. Smith. We fully allow his work to be an admirable investigation into the symptoms and signs presented by early phthisis, and a sensible exposition of the treatment to be adopted; but we lack any evidence that the cases on which he has worked have been in the pre-tubercular stage; we have no proof that in all of them tubercle was not deposited; or, on the other hand, if in a condition in which tubercle had not as yet existed, that they have been phthisical at all. Every person who loses his appetite and muscular strength, who does not relish fat, and whose respiration is lowered by weak muscles and diminished innervation, is not necessarily phthisical; his condition may terminate in other diseases—in chronic liver or kidney disease, in gout, or in simple dyspepsia. With a great show of accurate statistical investigation we find no careful limitation of his cases. If he only includes in the first stage of phthisis those conditions which exist before any evidence of the deposition of tubercle is afforded, and if this description is to be supposed to apply to all the cases from which he has obtained the details of his work, the reader ought to have been furnished, first, with the evidence on which Dr. Smith has come to the conclusion that no tubercle existed at the time of his observations; and, secondly, with the subsequent history of each case to prove its phthisical nature.

If, on the other hand, we take Dr. Smith's book to be the result of an investigation of a large number of cases of early phthisis, in the ordinary acceptation of the term,—cases in many of which the physical signs might be obscure or undeveloped, whilst, in others, the existence of miliary tubercle or of circumscribed tubercular deposit was fairly evidenced—we can award it a high meed of praise. There are not many new great facts in the book, but old observations and opinions are substantiated by a process of rigid statistical observation. For instance, if we turn to the section on Appetite we find that he sets out with asserting what everybody knows, that in early phthisis "the appetite seldom remains natural, but is somewhat lessened in respect of food in general, and of some foods in particular, and is commonly wayward and uncertain." He then gives the result of inquiries as to the likes and dislikes for certain articles of food in 400 patients, of whom 276 were phthisical. The substances inquired about were acids, sugar, tea, coffee, vegetables, fruits, bread, meat, milk, and fat. One of his conclusions is a matter of common observation, viz., that phthisical persons frequently dislike fat, but he places it upon a sure numerical basis. He writes:—

"The highly important fact was elicited, that fat is less commonly liked in phthisis than in other diseased conditions of the system, and that this dislike is more general in persons afflicted with the disease in its early, than in those suffering from the subsequent stages of the disease. Thus, 58·3 per cent. of those in all stages of phthisis liked some form of fat, but in the early stage alone the number was reduced to 53·5 per cent., so that nearly half in all cases of early phthisis have a distaste for fat. In reference to the kind of fat which was most disliked at this early period, we remark that only 37·7 per cent. liked all the kinds of fat; 28·8 per cent. disliked fat bacon; ·23 per cent. disliked milk; 6·6 per cent. disliked butter; 44·4 per cent. disliked fat of meat; and 9 per cent. disliked suet in puddings."

The value of hæmoptysis as a symptom of tubercular deposit is confessedly at present an open question. We ourselves, and we are supported by the opinions of some of the best observers of the day, believe that its appearance in the absence of tubercle is exceptional and of the very rarest

occurrence. Dr. Smith thinks otherwise. In the early stage of phthisis he holds that it is not *necessarily* indicative of disease of the lung such as would imply any destruction of parts, or any local interference with the circulation in the part, as by the deposition of tubercular or other matter, but that it most commonly indicates a state of local congestion or increased vascularity of the pharynx, induced by numerous causes from without, in which the lungs may possibly not share, and of which they certainly are not the cause. He supports this statement by the results of examination of the pharynx, which frequently presents enlarged and vascular follicles and distended veins, by the absence of auscultatory phenomena, and by the frequent occurrence of hæmoptysis in cases which he considers chronic bronchitis. The latter arguments we hold to be worthless without post-mortem proof, and to the former we may reply that it is true that a little blood may occasionally come from a pharyngeal vessel ruptured in the act of violent coughing, but that such cases are to be distinguished from, and are not to be ranked with, bleeding from the lungs. One of the most distinguished Pathologists and Physicians of this country has arrived, from the examination of a vast number of cases during life and after death, at the conclusion that, setting aside cases of aortic and cancerous disease, hæmoptysis never exists apart from tubercle. We cannot in the present state of knowledge endorse sweeping assertions on the point, but we do believe that its occurrence is excessively rare. Dr. Smith also doubts whether cretaceous expectoration be the result of tubercle; but in support of his opinion we lack the results of examination after death, the only proof as we think which the subject admits.

Dr. Smith's treatment is thoroughly rational. He enforces and lays down rules for a true analeptic treatment of the disease, as regards diet and regimen. We entirely coincide with him as to the value of deep voluntary inspiration, and we recommend his remarks on this subject to general consideration. If we leave out of consideration what appear to us the great faults of the book—viz., that it treats of a generally recognised condition as if it were for the most part unrecognised; that it speaks of a pre-tubercular stage as evidenced by phenomena which we believe support the existence of tubercle, and that there is a general assumption that because the signs to be derived from auscultation and percussion are not to be developed in a given case, that, therefore, tubercle does not exist, we readily accord the praise due to the work of a laborious and accurate observer.

On the Use of the Perchloride of Iron and other Chalybeate Salts in the Treatment of Consumption; being a Clinical Inquiry into their Physiological and Therapeutic Properties, with a Chapter on Hygiene. By James Jones, M.D. Lond., Physician to the Metropolitan Free Hospital, and to the Margaret-street Infirmary for Consumption. London: Churchill. 1862.

Much of this little treatise has already appeared in our pages; we therefore shall confine ourselves to an expression of general approval. It is by careful statistical inquiry, such as that before us, that the true value of a remedy is tested. Dr. Jones makes no pretensions to originality in the use of the perchloride of iron, but he has a higher claim,—he has thoroughly worked out a series of cases in which its therapeutic powers have been carefully tested, and he presents the evidence to his readers in a form which enables them to examine its validity. His views of the pathology and the rationale of treatment of phthisis are thoroughly sound. The little book is well written, and deserves a wide circulation.

The Examination of the Chest, in a Series of Tables. By George N. Edwards, M.D. Cantab., Assistant-Physician to St. Bartholomew's Hospital. London: Churchill. 1862.

This book is an exception. We usually regard tables with abhorrence, as being simply the most difficult and uninteresting mode of conveying information. Dr. Edward's pamphlet certainly does not come under this category. He tells us in his preface that the series was originally drawn up at the suggestion of the late Dr. Baly, and that two or three of the tables used by him are included in it. The execution of the work fully warrants Dr. Baly's recommendation. The tables give us in the clearest and fewest possible words the normal and abnormal sounds presented by both heart and lungs, and the phenomena to be elicited by physical diagnosis as they are found associated in the principal diseases of these organs. The work is illustrated by a front and back view of the bony thorax mapped out into regions. We believe that it will prove a most valuable assistance in diagnosis to many a Student and many a Practitioner.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

GERMANY.

Berlin, June 10.

ON DIGITALIS IN TYPHOID FEVER.

Professor Wunderlich, whose researches on the changes of animal temperature in fever and other acute diseases have been already communicated to your readers, has lately undertaken a series of experiments on the effects of digitalis in typhoid fever, and has come to the following conclusions regarding its use :—

Infusion of digitalis is easily absorbed by the intestines of patients suffering from fever, and has, if given in a suitable dose, most marked effects, especially upon the rate of pulsation and animal heat, both of which are more or less considerably diminished. The quantity required for producing decisive effects is smaller in fever patients than in such as suffer from pneumonia and other acute diseases; and varies from thirty to sixty grains, to be taken within from three to five days. If the medicine is given irregularly or at considerable intervals, or at a late period of the disease, this dose must be increased; but if it has been given at an early stage, and then discontinued, a smaller quantity is sufficient for causing the special effects of the drug, if its use is recommenced at a later time. It acts more rapidly on animal temperature than on the heart, the former effect being already observable on the first day after taking it. For the first few days the decrease of heat is rather slight, but it afterwards becomes considerable. If the temperature should again rise after it has been much diminished, still it never ascends to its former height, and after it has again risen for a short time, definite improvement sets in. If the full effects of the medicine are brought about, the temperature decreases $2^{\circ}\cdot7$ in the evening; but it seldom falls to its normal standard, and never below it. The action lasts only one day after the use of the medicine, and if this is discontinued, no further decrease takes place. With regard to the pulse, Professor Wunderlich found that the diminution is at first only slight, and occurs in some cases on the second day after taking the medicine; but mostly on the third day or even later. This is followed by the principal effect, which always appears on the fourth or fifth day after application, when the rate of pulsation is diminished by 30 to 60 beats within from twelve to thirty-six hours. This occurs simultaneously with a marked decrease of temperature, and the pulse after some time even falls below its ordinary velocity. This effect is much more permanent than that upon animal temperature, and often lasts for several weeks in succession. We are thus able to diminish, by the administration of digitalis, the heat,—that is, the fever itself; to reduce the pulse, and to moderate the severity of the disease. Such effects are plainly observable at a period when, in the spontaneous course of the complaint, there is hardly ever any decrease of the severity of the fever; viz., during the second week, and in the commencement of the third week in severe cases. The medication described is devoid of any danger, provided that it be at once discontinued, if the velocity of the pulse decreases rapidly. Digitalis has no direct influence upon the changes in the intestinal canal which occur in typhoid fever; it only mitigates the symptoms which are present in severe cases at the time when the ulcers begin to heal, and which often impede or prevent recovery. It should, therefore, be used in the severe forms of the disease only, especially at a time when most danger is to be apprehended from the violence of the fever; when the evening temperature is at 108°, and when there are only slight remissions in the morning; when the pulse is at 120 and more, and in the second week of the complaint. In mild cases of typhoid fever digitalis is superfluous. The best mode of administering it is to give large doses without interruption until the full effect has been obtained, viz., an infusion of 15 to 20 grains per diem for adults.

ITALY.

Palermo, June 25.

PALERMO AS A HEALTH-RESORT.

The following particulars concerning this city as a health-resort for invalids, may be useful to those who may intend to spend the forthcoming winter at, or to send patients to, this place. The last winter was, on the whole, fair and warm, and proved beneficial to a number of persons suffering from diseases of the chest. We had very little wet, and even when it rained for a few hours, the weather shortly afterwards cleared up again, so that exercise in the open air was nearly always possible. The temperature sometimes fell to 32° during the night, but in the day-time it was scarcely ever below 41°. It is true that the wind was sometimes high, but it was never of such violence as to preclude a walk out of doors. We had altogether from fifty to sixty patients here; most of whom had selected Palermo for residence in consequence of a very able little work by Dr. Vivenot, which was published some time ago, and in which this city is highly recommended as a sanatorium.

The Hôtel de Trinacria and the Hôtel de France continue the two most frequented hotels. The former contains every comfort, rooms in which you may have a fire, a well-served table, and good beds. It is, in fact, what in France or England would be called a good second-rate hotel. It has, however, the drawback of being full of draughts and, although beautifully situated and having a delightful view of the sea, it has an eastern aspect and is much exposed to the wind. For this reason patients will, on the whole, find the Hôtel de France preferable, which has not so fine a situation, but where the rooms are sunny and sheltered, and creature comforts are pretty well attended to. I have lived there for some months past, and the only thing I had to complain of was, that the proprietor delayed putting a stove into my room until I had caught a severe cold, which scarcely left me for the next few months. Such patients as keep their rooms, will find a fire absolutely necessary. Firewood being rather scarce in Palermo, and wood of olives, oranges, and citrons being generally used, fire is rather an expensive luxury here. Meat, poultry, and vegetables are always very good. Goats' milk is much drunk by patients in the morning, and of fair quality. Private lodgings are very few here. Most of the villas in Olivuzza, near Palermo, are very fine and healthy, but only inhabitable if you are not dependent upon provisions being fetched from town; for as the road is very bad, the distance is greater than agreeable. The celebrated Villa Butera, in Olivuzza, is just now for sale, and would afford a capital opportunity for establishing a first-class boarding-house for patients. Such an establishment would be very useful to patients, and no doubt lucrative to the proprietor. The situation of this villa is unrivalled for beauty and convenience, and patients might there remain in the open air almost during the whole of the day. The want of good accommodation only too frequently retards recovery or renders it impossible. A Swiss Physician, aged 54, who was here last winter, and who had a large vomica in the left lung, found at first relief, especially regarding the symptoms which depended upon the ulceration of the larynx; but as he did not live quietly enough, the lungs did not improve He left, in April, for Switzerland, where he has just died. A young German gentleman, who was unable to find a good lodging, caught cold, and suffered from indigestion in the commencement of his stay here. This entirely counterbalanced the effects of the climate, and he left in May, very ill, disappointed, and despairing. These two instances may serve to show that even the finest climate in the world is, by itself, insufficient for a cure, unless the patients keep quiet, are careful, and surrounded by the necessary comforts. Persons whose means are very limited had better not be sent abroad. On the other hand, those who can afford to have everything necessary, and who live carefully, have a very good chance of a cure. Such was the case of a young Frenchman, who arrived here in a very bad condition. He had consulted several eminent German Physicians, who had insisted upon his giving up music and painting, of which he was, as an amateur, passionately fond. He never afterwards touched the bow or the brush, and left last month apparently quite cured. Another patient, who suffered from nervous asthma, had no paroxysms of this disease during his stay here; while at Rome he had never been free from it.

It is unnecessary to dilate upon the well-known beauty of this place, and the charms of the whole of Sicily for those who are able to undertake excursions. But patients should be earnestly warned not to go into the interior of the island, as the roads are very bad, and there is every probability of their being affected by the fatiguing journey and cheerless inns. An excursion to Catania should also be avoided, at least until the completion of the railroad, which, although it was commenced some time ago, will probably take a long time before it is finished. A friend of mine, who made that journey in January last, was so bitten by the musquitoes, that he arrived in Messina with his face and hands dreadfully swollen.

The annexation of Sicily to the newly-established Kingdom of Italy can scarcely be said to have as yet been followed by much material improvement in the condition of the country; still there are great hopes that something will be done towards that end. A chief objection which was hitherto made to Palermo as a health-resort, viz., that there were only native Doctors, and no regularly-educated Medical Practitioners, is now removed, as a very accomplished German Physician has just settled here.

EDINBURGH.

June, 1862.

This has been so uneventful a Session that your correspondent has sought in vain for something to say. June has been as inclement as usual, and has I trust benefited my Medical brethren. In this delightful country we have all climates, and may change from China to Peru in the course of a week. The classes this summer have been as a rule but poorly attended. The new regulations, especially the severe preliminary examinations, keep many a lad back, and it is just possible that advancing intelligence may have hinted to parents and guardians that there are enough Doctors in the market without manufacturing a large new supply every year, and turning hundreds of young men upon the world with "a good set of teeth and nothing to eat" as their sole inheritance.

But while "man, vain man" thus holds aloof, in trips "lovely woman" ready to take his vacant place. Alas! that the age of chivalry is fled, has been proved in a manner which *both* the Burkes would have disapproved,—the College of Physicians have by a majority of *two* decided against admitting ladies to the Medical Profession. So, unless the University decides contrariwise for consistency's sake, we shall have no "sweet girl graduates with their golden hair" dangling over stethoscopes, tickling the already too palpitating thorax; we shall not see taper fingers tracing the oleaginous layers of the peritoneum, or some Calypso looking fondly at the demonstrator across the Island of Reil. Alas! that vision must be dispelled, and the ladies content themselves with the limited auscultatory skill required to detect a domestic bellows' sound, and stew and break hearts, not cure them. It says much, however, for the very favourable impression which the young lady whose application has been under discussion has made here,—that sixteen of the Fellows of the College of Physicians voted for the admission of ladies. Indeed, the majority might have been still smaller but for the "scunner" (excuse a Scotch word signifying disgust) which was felt at others of her sex who have appeared here with some long words—

> "from Miller got by rote,
> And just enough of learning to misquote,"

and just enough of experience in their professed calling to have deprived them of what is supposed to represent modesty on the other side of the Atlantic.

Notwithstanding the falling off in the number of students, we have three new lecturers in the field. Dr. Douglas Maclagan having ceased to lecture on Materia Medica, Dr. Scoresby Jackson, author of a life of his Arctic uncle and a book on climate, occupies his place in the College of Surgeons; while Dr. Grainger Stewart lectures in the High School Yards on the same subject. Dr. Argyll Robertson gives his first course on Ophthalmic Surgery, and, from his long pupilage with Graëfe and at Moorfields, will no doubt give valuable instruction. Mr. Spence, at the Medico-Chirurgical, showed a tracheotomy-tube which had fallen into a patient's left bronchus. The tube had been inserted some three years ago by Dr. Thomas Keith, and had got worn or corroded where the collar and tube join; these suddenly parted, and the latter slipped into the windpipe. The

man was brought to Mr. Spence, who, having enlarged the orifice, seized the tube and withdrew it. No doubt a detailed account of this singular accident will be given by Mr. Spence. There has not been anything very remarkable in the Royal Infirmary of late, although ordinary operations are frequent. You have already heard all about the iliac aneurism case, so I need not further allude to it; but I cannot resist noticing the difference in one respect between Mr. Syme and other operators. However serious may be the undertaking, however necessary assistance may be, he places himself and his patient in such a position that those present can see what he is about, or as much as possible. This art of placing his supports, etc., is a great boon to the spectator, who sometimes grudges spending half an hour to an hour (nay, I am not exaggerating,) watching the movements of a Surgeon's frock-coat, an occasional bloody sponge being the nearest approach to a sight of the performance. No wonder that there are so many mere *tailors* at operating. Dr. Gillespie removed two knee-joints lately; one, a man, died apparently from shock,—the other, a young woman, has done well. Dr. Gillespie used the single curved incision, and seemed to remove the ends of the bones with great ease.

GENERAL CORRESPONDENCE.

ON A CASE OF PUERPERAL CONVULSIONS, TREATED BY TURNING.

Letter from Mr. John Pearson.

[To the Editor of the Medical Times and Gazette.]

Sir,—Perhaps you will think the following particulars of a case of sufficient interest to some of your readers, to give it a place in your Journal:—

Mrs. L., aged 40, of a delicate, strumous constitution, and already the mother of eleven children, was seized about 2 o'clock a.m. of the 24th ult., with severe spasms of the præcordial region, quickly followed by vomiting and diarrhœa. These subsided in about three hours, when oppressive headache supervened, which at 8 o'clock was followed by convulsions.

I was first sent for at 9 o'clock, and saw her soon after a second strong convulsion. I ascertained these particulars from the attendants, as the patient was only partially sensible, and unable to give any account of the symptoms. I found she was pregnant, and was considered to be within two or three weeks of the period of her confinement. On making a vaginal examination, I found the os uteri at the brim of the pelvis thick, and evincing no indication of uterine action. Although the above symptoms were characteristic of uræmic poisoning, I quickly formed the conclusion that delivery, if possible, would probably have to be effected in order to avert a fatal termination of the case, and I accordingly made an attempt to induce dilatation of the os uteri, and after a few minutes succeeded in passing one finger within the uterus, and then desisted. As this was a case of feeble constitution, although the pulse was full, I dared not have recourse to general bleeding, but ordered leeches to the temples, and cold lotion to the head. I saw her again at 12 o'clock, the convulsions having recurred every hour during the interval: no improvement. I now succeeded in further dilating the os uteri, so as to pass two fingers, and again waited until 3 p.m., when I effected a further dilatation, and then left the patient until 6 p.m., when I arrived to witness a most horrible convulsion, followed by deep coma, dilated pupils, and an exceedingly feeble pulse. It now became evident that if another attack came on, my patient must inevitably sink, and I resolved at all hazards to deliver at once, either by forcing the hand within the uterus; or, if that were not practicable, as the presentation was natural, by perforation of the head. I, therefore, as soon as the convulsion had exhausted itself, and whilst the woman was deeply comatose, had her placed on her side, and insinuated my left hand (which, by-the-bye, I invariably use in cases of turning) into the vagina, and by cautious dilatation I eventually succeeded in passing it into the uterus, when I quickly reached the feet, brought them down, and delivered in a few minutes. The child was born alive, and continues well. After delivery I passed a strong bandage round the patient, and anxiously watched to see if the uterus would contract sufficiently to prevent excessive hæmorrhage, as I felt that life at that moment hung upon a very slender thread. However, I am glad to say that after delivery the convulsions never recurred, although for eight or nine hours afterwards the comatose condition persisted; about that period she gradually rallied, and the following morning was quite sensible, although still complaining of dull headache. She is now sitting up, and convalescent. She has lost five or six of her children from laryngismus stridulus, and was altogether a most unpromising subject.

I am, &c.

John Pearson.

Stalybridge, July 3.

EPILEPSY.

Letter from Dr. Thomas Downie.

[To the Editor of the Medical Times and Gazette.]

Sir,—Many interesting cases of Epilepsy have been detailed in the columns of your valuable periodical of late. May I still crave space for an account of the following peculiar one?

Thomas C., a farm servant, aged 14½ years, had a fall from a tree in November, 1858, which caused concussion of the brain. He remained unconscious for an hour or two; was seen by a Medical man shortly after the accident, and, although little or nothing was done for the patient at the time, he soon regained his usual state of health. About six months, however, after the accident he had an epileptic fit—the first of the kind he had ever had—and about three months afterwards (July, 1859,) the patient had a second fit, when I was asked for the first time to attend him. He had several fits at this time, and they lasted over two days. Laxatives, anti-spasmodics, and mustard poultices were the principal remedies employed on this occasion. The patient had a third attack of the fits on September 25, 1859, and at this time they lasted over ten days, and occurred once or twice a-day, but never during the night. I saw him on September 29, when the following symptoms were related to me, most of which I had an opportunity of verifying in a manner which will be related shortly. "Patient seems to have no thorough idea or consciousness of the approach of the fits, as he will sit upon a table or chair till he tumbles off them. When, however, the fit is about to come on, he shows symptoms of uneasiness, is restless, the lips are brought together and opened spasmodically, which causes a smacking sound; the head shakes and quivers, and occasionally jerks in a peculiar manner; the limbs quiver, and the feet stamp the ground. He then becomes unconscious, falls to the ground, struggles violently with hands clenched, and occasionally limbs become quite rigid and stiff." All these symptoms could be brought on at pleasure, for it was observed that when the left temple was pressed, and more especially as we neared the transit of the supra-orbitary nerve, the whole train of symptoms were called into action; and it appeared quite evident to me that, had the pressure been kept up for even a short time, it would have brought on convulsions. I did not, however, consider myself justified in carrying the experiment so far, and consequently the pressure applied by me was only momentary; it was sufficient, however, to develope the whole train of symptoms just short of the fit itself. I observed, also, that pressure on the internal nares and roof of the mouth of the side affected brought on symptoms of a similar kind, though much fainter in degree, and it required more pressure to develope them.

The general health of the patient is not much affected, but the tongue is coated with a brownish fur. To have three leeches applied to the temple, and a purgative of pulvus jalapæ co. et hydrarg. bitart.

September 30.—Leech bites bled very freely, purgative also acted freely; has taken tr. assafœtida as directed; patient had a severe fit just as the leeches were being taken off; the part is not so sensitive to the touch, he can now stand light pressure over the affected part; heavy pressure, however, still makes him wince and walk and dance about. A blister to be applied behind the left ear; repeat purgative, and give a hydrargyrum c. cretâ powder three times daily.

October 3.—Had a fit when the blister was taken off. Still winces when heavy pressure is made on the part affected; gums are now tender; to stop the powder and apply leeches again to the temple.

8th.—Has had no more fits, and can stand any ordinary amount of pressure over the parts affected, without wincing,

tongue clean; to have ℞ Quinæ valer., gr. xxiv.; zinci valer., gr. xij.; aloes Barbad., gr. viij.; conserve rosæ, ext. gent. q. s. M. et divide in pilulas 24 cap. j. ter in die. The patient took these pills for upwards of three weeks, and up to this time has had no return of the fits. I think, therefore, we are warranted in considering this case of epilepsy cured, seeing that it is now nearly two years and six months since the patient was under treatment.

Remarks.—Were we to be asked on what in all probability this case of epilepsy depended, we would, I think, be induced to answer, that it depended upon some inflammatory or abnormal deposit, or alteration of structure, either in those parts in immediate contact with some of the branches of the fifth nerve, perhaps near to the Gasserian ganglion, or in some morbid state of the branches of the nerve itself. That this is a correct explanation of the principal cause is proved, I think, by the peculiar symptoms brought on when pressure was made on the terminal filaments of the nerve. It appears to me, however, that the immediate cause of the fits arose from a congested state of the capillary blood-vessels in the vicinity of the nerve branches, and that this congested state was brought on at uncertain intervals by certain causes unknown to us. The probable cause which originated the alteration of parts within the cranium referred to, was, I think, the fall from the tree; for it will have been noted that up to that time the young man had had no epileptic fits. This was the view, at least, I took of the case after having seen the patient the second time, and the treatment employed was in strict conformity to this view. I think the treatment also, in some measure, at least, proves the correctness of the opinion arrived at, for it will have been observed that the first leeching diminished the sensitiveness of the parts affected, and that, although the patient was under the influence of mercury, he still winced under heavy pressure, and that it was not until after the second leeching that he could stand heavy pressure without wincing. And, again, had this case of epilepsy been caused by congestion alone, the mere emptying of the congested vessels would not have prevented them from becoming congested again, for in the intervals between the attacks the vessels must have returned to their normal condition, in as far, at least, as engorgement is concerned. We had, therefore, in all probability another element in this case to contend against. Some abnormal deposit or alteration of structure, requiring the absorbent and alterative powers of mercury for its removal, and the bracing or tonic powers of quinine, zinc, and gentian, for a permanent cure. I am, &c.

Thomas Downie, L.R.C.P. Ed., L.F.P.S. Glasg.

Blantyre.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, July 1.

Dr. Babington, President, in the Chair.

REPORT OF THE COMMITTEE APPOINTED TO INVESTIGATE THE SUBJECT OF SUSPENDED ANIMATION.

The inquiry was conducted—By means of experiments upon living animals; by means of experiments upon the dead human body. In investigating anew the subject of apnœa by means of experiments on the lower animals, it seemed expedient to observe, in the first place, the principal phenomena of apnœa in its least complicated form—namely, when produced by simply depriving the animal of air. The principal facts to which attention was directed during the progress of the apnœa thus induced were—The duration of the respiratory movements; the duration of the heart's action. The duration of the heart's action was observed—(*a*) In relation to the duration of the respiratory movements. (*b*) In relation to the time after the stoppage of the breathing. From the experiments performed it appeared that in the dog the average duration of the respiratory movements after the animal has been deprived of air is 4 min. 5 sec., the extremes being 3 min. 30 sec. and 4 min. 40 sec. The average duration of the heart's action is 7 min. 11 sec., the extremes being 6 min. 40 sec. and 7. min. 45 sec. From these experiments it appears that on an average the heart's action continues for 3 min. 15 sec. after the animal has ceased to make respiratory efforts, the extremes being 2 min. and 4 min. respectively. Rabbits on an average ceased to make respiratory efforts in 3 min. 25 sec. Their heart's action stopped in 7 min. 10 sec.; consequently the interval between the last respiratory effort and the cessation of the heart's action was 3 min. 45 sec. The next question investigated was—the period after the simple deprivation of air at which recovery is possible, under natural circumstances, without the aid of any artificial means of resuscitation. The experiments performed led to the conclusion that a dog may be deprived of air during 3 min. 50 sec., and afterwards recover without the application of artificial means; that a dog is not likely to recover, if left to itself, after having been deprived of air during 4 min. 10 sec. The force of the inspiratory efforts during apnœa was observed in the experiments to be so great that it was determined to measure them. They were found to be capable, in the dog, of raising a column of mercury four inches. It appeared, moreover, that their force increases up to a certain period. In other experiments, plaster of Paris, and even mercury, were thus drawn upwards into the minute bronchial tubes. It is easy to understand, therefore, how foreign bodies may be drawn into the lungs in cases of drowning, and the importance of this fact in the consideration of the pathology and treatment of apnœa. The Committee next passed on to the subject of drowning. The first question investigated was—For what period can an animal be submerged, and yet recover without the aid of artificial means? It was found as the result of numerous experiments on dogs that, in striking contrast to the previous ones, one and a-half minutes' immersion in water suffices to destroy life. Other experiments satisfactorily showed that the difference of time between simple apnœa and that by drowning is not due to submersion, or to depression of temperature, or to struggling, but that it is connected with the fact, that in the one case a free passage of air out of the lungs, and of water into them, is permitted; in the other, the exit of air and the entrance of water are prevented. There can be no doubt, from other considerations put forward, that although both these circumstances are concerned in producing the difference observed, yet that it is mainly due to the entrance of water and the effects thereby produced. The treatment of apnœa was next considered. For conclusions respecting artificial respiration, the Committee refer to the second portion of the Report. Many other methods of resuscitation which have been recommended were employed, including actual cautery, venesection, cold splash, alternate application of hot and cold water, galvanism, puncture of the diaphragm. Although some of the above means were occasionally of manifest advantage, no one was of such unequivocal efficacy in a sufficient number of cases as to warrant the Committee in specially recommending its adoption. The experiments upon the dead subject were made with a view to determine the value of the various methods which have been employed for alternately compressing and expanding the cavity of the chest in such a manner as to imitate the natural movements of the thoracic walls in breathing. The following methods have been investigated:—1. Pressure exerted by the hands on the anterior wall of the thorax, the body being in the prone posture. Such pressure has for its object, to expel a portion of the air contained in the chest: on relaxing the pressure, the chest expands and air enters. 2. The postural or so-called "ready" method, described by Dr. Marshall Hall, which consists essentially in "turning the body gently on the side and a little beyond, and then briskly on the face alternately;" and in making pressure along the back of the chest each time the body is brought into the prone position. 3. The method of Dr. Silvester, in which the action of the pectoral and other muscles passing from the shoulders to the parietes of the chest in deep inspiration is imitated. An inspiratory effort is produced by extending the arms upwards by the sides of the head; on restoring them to their original position by the side of the body, the expanded walls are allowed to resume their previous state, and expiration takes place, the quantity of air expelled being in proportion to that which had been previously inspired. It being necessary to measure the flow of air in and out of the respiratory cavity under conditions of pressure closely resembling those which exist in natural respiration, no means of measurement could be used, which, in its working, would offer any appreciable resistance to the passage of air. With this consideration in view, an instrument designed by Dr. Sanderson was employed. (The

instrument was exhibited to the Society.) *General Results.*—1. As regards the volume of air which can be expelled from the thorax by compression of its walls, and inspired by the elastic expansion consequent on relaxation of the pressure, it was found—(*a*) That pressure by both hands on the lower third of the sternum in the adult male subject usually displaced from eight to ten inches of air. The pressure actually exerted amounted to about thirty pounds. It was, therefore, not greater than might be safely applied to the living subject. The volume of air expelled varied from eight cubic inches to fifteen cubic inches. (*b*) That pressure made in the same manner on the upper part of the sternum usually displaced two or three cubic inches less than pressure on the lower part. (*c*) That pressure exerted by one hand on the upper part, by the other on the lower part of the sternum, produced about the same results as were observed in *a*. In this case the whole amount of pressure did not exceed that exerted in *a*. (*d*) That the pressure of a weight laid on the lower third of the sternum produced similar results according to its amount. (*e*) The lateral pressure exerted on the ribs or costal cartilages of both sides simultaneously was in no instance more effectual. (*f*) That compression by a broad bandage encircling the chest, the ends of which were crossed over the sternum, and drawn in opposite directions by two persons, produced no greater effect than pressure with the hands on the sternum or sides. 2. As regards the whole amount of exchange of air produced by the method of Dr. Marshall Hall, "to imitate respiration," it varied much, according as the subject was favourable or the contrary; sometimes not exceeding a few cubic inches, but never exceeding fifteen cubic inches. 3. As regards Dr. Silvester's method, it was found, that on extending the arms upwards, a volume of air was inspired into the chest, which varied, in different subjects, from nine to forty-four cubic inches, and it was observed that the results obtained in successful experiments on the same body were remarkably uniform, in which respect, as well as in their amount, they contrasted with those obtained by the method of Dr. M. Hall. On restoring the arms to the side, the quantity of air expelled was generally nearly equal to that previously inspired, occasionally less. In the treatment of apnœa generally, the Committee offer the following suggestions:—That all obstruction to the passage of air to and from the lungs be at once, so far as is practicable, removed;—that the mouth and nostrils, for example, be cleansed from all foreign matters or adhering mucus. That in the absence of natural respiration, artificial respiration by Dr. Silvester's plan be forthwith employed in the following manner:—The body being laid on its back (either on a flat surface, or, better, on a plane inclined a little from the feet upwards), a firm cushion or some similar support should be placed under the shoulders, the head being kept on a line with the trunk. The tongue should be drawn forward so as to project a little from the side of the mouth. Then the arms should be drawn upwards until they nearly meet above the head (the operator grasping them just above the elbows), and then at once lowered and replaced at the side. This should be immediately followed by moderate pressure with both hands upon the lower part of the sternum. This process is to be repeated twelve or fourteen times in the minute. That if no natural respiratory efforts supervene, a dash of hot water (120° Fahr.) or cold water be employed, for the purpose of exciting respiratory efforts. That the temperature of the body be maintained by friction, warm blankets, the warm bath, etc. In the case of drowning, in addition to the foregoing suggestions, the following plan may be in the first instance practised:—Place the body with the face downwards, and hanging a little over the edge of a table, shutter, or board, raised to an angle of about thirty degrees, so that the head may be lower than the feet. Open the mouth and draw the tongue forward. Keep the body in this posture for a few seconds, or a little longer if fluid escapes. The escape of fluid may be assisted by pressing once or twice upon the back. (Signed)—C. J. B. Williams, *Chairman;* W. S. Kirkes; George Harley; J. B. Sanderson; C. E. Brown-Séquard; H. Hyde Salter; E. H. Sieveking, *ex officio;* William S. Savory, *Hon. Sec.*

On the motion of Dr. Edward Smith, the resolution of the Council appointing the Committee was read.

Dr. C. J. B. Williams said that, although the subject referred to the Committee was Suspended Animation, the Council had not in any way dictated how the inquiries should be conducted. The report was a very elaborate one, on a subject of increasing interest, both in a physiological and therapeutical point of view. He (Dr. Williams), although Chairman of the Committee, had had little to do with the investigation, and wished it to be understood that he did not claim any great share in the labour and ingenuity bestowed on the subject; he could, therefore, with less hesitation speak highly of the results of the inquiry. As probably in the reading of the paper many members might not have been able to remember the whole of the details, he would give a brief *résumé* before the discussion took place. He then recapitulated the various points in the paper. In reference to the apnœa from drowning, he said that he believed the water would probably act injuriously on the blood, destroying the corpuscles by osmosis, as well as damage the lung locally by filling the bronchial tubes with froth and rendering the lung œdematous.

Dr. Edward Smith remarked upon the great importance of the present discussion from the interest of the subject, and the fact that this being the first occasion on which the Society had appointed a Committee to make scientific investigations, it might be a precedent for future action. He thought it most desirable that the Society should endeavour to accurately estimate the true value of the results which such Committees could produce. On the present occasion they had a Committee amongst whom were men of world-wide reputation, and a subject of inquiry of the highest interest, and not of greater complexity than would be found in all practical questions in Medicine. The report must be regarded in two aspects,—one, that of the scientific facts which had been elicited; the other, their exact application to the purposes for which the Committee was appointed,—viz., to determine the best methods of restoring the drowned. As to the facts, no one could doubt their extent and interest, the care with which they had been ascertained, and the pains taken to estimate the influence of disturbing causes. The methods adopted appeared also to have been very correct. He wished to know if the construction of the spirometer with a long arm and the scale at the end of it gave a more minute registration than would be found with other air-holders of small diameter with the scale at the side, for this was simply an air-holder after the plan of Davy, Pereira, and Hutchinson. He adverted to the importance of the quantity of bloody water found in the lungs of the dogs drowned, and explained that the water would be introduced from the bronchi into the blood-vessels by endosmosis, and there would cause the swelling and bursting of the blood corpuscles after the circulation had been greatly retarded or arrested, and would also cause rupture of the capillaries, or the attenuated blood would pass through the walls by exosmosis, and thus appear in the bronchi. He did not think that the experiments upon the action of chloroform in deferring the fatal issue were conclusive, since they were too few, and the increased duration of life very small; and it had not been shown that a narcotised animal might not have greater tolerance of apnœa independent of the idea which the Committee had—the diminution of muscular effort. The matter of greatest interest in the report was the comparison of the Marshall Hall and Silvester methods, and Dr. Smith thought that both might be advantageous in the treatment of the drowned. The experiments had shown that, with the lungs free, there was greater change of air with the Silvester method. The Marshall Hall method started from the point of expiration, but living persons could by their effort expire forty cubic inches below that point, and if, by external pressure on the inanimate, one half of that quantity could be displaced, it would probably suffice for the purpose in hand. The amount of air displaced by this method would vary with the care which was taken to effect it, the weight of the body, the age, and other conditions which affected the elasticity of the ribs. The Silvester method, by enlarging the cavity of the chest above the line of expiration, must cause greater displacement of air; but it had been shown by the Report, that in a case of phthisis, where the lung capacity was greatly reduced, the effect of the two methods was precisely the same. Such would also probably be the case with drowned persons in whom the lungs were full of water, which offered a great obstacle to the introduction of air; and in this condition the Committee had not made any experiments to show that the one method was of more avail than the other. It was in reference to the practical object in the appointment of the Committee that the Report failed. The Committee had not proved that any one of their inquiries were applicable to the drowned human subject. The time during which a man could be immersed in water and recover could not be proved by experiments on dogs, and the

Committee themselves had shown that all their plans for the restoration of drowned dogs had failed. The Committee had, in one part of the Report, disclaimed any intention to say how far the Silvester method was fitted for the restoration of the drowned; and yet in their recommendations they advise the use of this method almost exclusively, without having in any experiment tried it, under these conditions. The recommendation to place the body prone, and allow fluid to run out of the mouth, was an old recommendation; but they had inferred, and not proved, its value, and that only from experiments on drowned dogs which they could not resuscitate. The experiments on dogs had shown that neither cold nor hot water alone had any value as restorative agents, but that the alternation of the two was somewhat useful; but this alternation had not been recommended for man. Hence, Dr. Smith regarded this Report as but the commencement of the inquiry, a labour which had elicited important facts fitted to be employed in further researches; but as to the great object had in view in the appointment of the Committee—the scientific determination of the best method for restoring drowned men—he thought that it altogether failed. He urged the importance of the same gentlemen continuing the inquiry, and of making experiments under the conditions in which the knowledge must be applied, viz., upon men after immersion. He thought that the results of the present inquiry proved that for the observation of defined facts with known methods of inquiry, or with slight modifications of known methods, the appointment of Committees would ensure the work being done at a given time, and with authority, provided the names of the observers were appended to each observation; but for the solution of complex questions (as all questions of practice are), Committees would fail, since the essence of such an inquiry is the invention of a new method, and new methods can never be devised to order, but only through long-continued thought without the investigator being commonly able to trace the steps which led him to the result. Hence the last series of questions must always be solved as heretofore by individuals, and that not in any particular country, age, or time, but when the happy idea has occurred to an inquirer. Such Dr. Smith believed to be the experience of those who had been extensively engaged in scientific research. He attached great value to the facts contained in the Report.

Dr. Webster said that he thought the Silvester method was the best, and that the recommendation was very important. He was sorry to hear that the lives of so many dogs had been sacrificed in the experiments. He hoped that in future, if possible, experiments on living animals would be avoided.

Dr. Marcet wished to offer a few remarks on the method adopted to ascertain the duration of the heart's action. It was an important inquiry and one not easy to solve. There were cases in which, although life was still carried on, it was impossible to ascertain the action of the heart. He then referred to certain experiments in which he had been able, by the hæmadynamometer, to show that life was carried to some time after no indications of the action of the heart could be found by ordinary observation. In reference to the hot bath, Dr. Marcet said that it destroyed the equilibrium of the circulation and respiration, hastening the former without affecting the latter, and hence producing unequal action. In reference to artificial respiration, the experiments of the Committee showed that the quantity of air displaced was never more than forty cubic inches. The object of artificial respiration was partly to withdraw poison from the blood and partly to excite the heart. If a dog, exposed to sulphuretted hydrogen gas, is removed to the air, it rids itself of the gas by the lungs, filling its lungs with air. How could a sufficient quantity, in cases of suspended animation from poisonous gases, be supplied except by instrumental means? Dr. Marcet said that the objection urged against instruments, that they were not ready when wanted, would apply equally to instruments for other operations, as for amputation, trephining, etc., in which, however, no real difficulty existed.

Mr. Acton said that he was sorry to hear that the opposition to the Report was more to its details than to the Report itself. He thought that the members of the Society should consider that the Committee had come forward for the first time, and that, as in the Academy of Medicine at Paris, they ought to be received with laudation. Members of the Society should not come forward, each with their own particular views, to attack the Report; and, instead of dwelling on its shortcomings, they ought to receive the labour of the Committee thankfully.

Mr. Charles Hunter said that he had assisted the late Dr. Marshall Hall in performing many experiments, and was sorry to hear that his method was condemned. What, he asked, was to become of the experiments they had made, four times as numerous as those of the Committee, and of the cases recorded as successfully treated on Dr. Marshall Hall's plan? He considered that one great advantage of his method was that it allowed the fluids to drip from the mouth, which they would continue to do sometimes for half an hour. He also thought that it was better to begin by inducing expiration, as by this means foul air or liquids were removed. As to the amount of air displaced, Mr. Hunter said that they had succeeded in displacing from fifteen to fifty inches.

Dr. Kidd considered that artificial respiration would be valuable in restoring persons from the effects of an overdose of chloroform. He had seen cases in which pressure on the chest seemed to restore life.

Dr. C. J. B. Williams said that the experiments detailed in the Report had been made with great care, and the methods of Dr. Marshall Hall and Dr. Silvester had been carefully compared. He considered that the Committee had done wisely in not recommending instruments, but what they considered to be the readiest plan under all circumstances. In reply to Dr. Webster, he stated that in no case had life been sacrificed except for some good reason. If it is right to kill animals for the sake of our appetites and for clothing, why not for the sake of ascertaining the means of curing disease and of preventing death? It is an old question, and, no doubt, many experiments were made needlessly and recklessly; but when such experiments on animals clearly tend to improvements for the good of the human race, it was, he considered, maudlin sensibility to object to them.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 4.

Dr. Tyler Smith, President, in the Chair.

A Paper, by Dr. Richard Hodges, was read on a case of

PRESENTATION OF THE RIGHT ARM AND SHOULDER; DELIVERY BY THE NATURAL POWERS, OR SPONTANEOUS EVOLUTION.

This labour set in on January 8; the liquor amnii then escaped, and no more uterine action occurred until the 10th, when the hand was found presenting. An attempt was made to introduce the hand into the uterus to turn, but unsuccessfully, owing to the firm contraction of the uterus; and, finally, expulsion took place by evolution, the breech passing first. The child had apparently been dead some days.

A Paper, by Dr. W. Tyler Smith, was read on

FOUR ADDITIONAL CASES OF OVARIOTOMY.

The present cases are in continuation of those presented to the Society in February and July, 1861, and numbered from 1 to 8.

Case 9.—*Polycystic Disease of both Ovaries—Operation—Death.*—The subject of this case was 59 years of age, unmarried, and had suffered from ovarian tumour for thirty-eight years,—a longer period, it is believed, than has been recorded of any similar case. She was of immense size. The operation was by the long incision, the bulk of the tumour being solid. Professor Simpson was present, and assisted at the operation. Numerous adhesions rendered the removal of the tumours very difficult. The pelvic adhesions were especially firm. In breaking them down, the rectum was slightly wounded. The patient died from shock six hours after the operation.

Case 10.—*Polycystic Disease of both Ovaries—Operation—Death.*—Mrs. M. had been suffering from ovarian tumour for two years. She had been once tapped, but ineffectually. The tumour was large, and chiefly solid. There was dropsical swelling of the feet, legs, and abdominal walls; a quick pulse, and great emaciation. The tumours were removed by a moderate-sized incision, but the adhesions were extensive and firm. As in the former case, the pelvic adhesions were the most formidable. The peritoneum was found to be extensively diseased, being covered in patches with masses of scirrhous hardness nearly an inch thick. The pedicles were secured by ligatures, which were left hanging from the lower

part of the wound. This patient lingered for three days, and then died of exhaustion.

Case 11.—*Polycystic Disease of the Left Ovary—Operation—Recovery.*—This patient (Mrs. H.) had suffered for upwards of two years. In the first instance, tapping was attempted, but nothing escaped through the trocar, save a little blood. The tumour was large, and almost entirely solid. There were adhesions to the small intestines, the omentum, and the abdominal walls. The pedicle was of large size, and the clamp was used to secure it. Great irritation and some hæmorrhage were caused by the sloughing of the large pedicle; but with these exceptions her recovery was uninterrupted, and she is now convalescent.

Case 12.—*Polycystic Disease of the Left Ovary—Operation—Recovery.*—Mrs. H., aged 58, was first tapped and pressure applied. Two cysts were emptied, but a considerable quantity of solid matter still remained. After the tumours had refilled, the operation was decided on, and performed in the presence of Professor Nélaton. The tumour was removed by a small incision. It was adherent to the omentum and the abdominal walls. The pedicle was slight, and after being tied with a silk ligature, the pedicle and the ligature were cut off as short as possible, and dropped into the abdomen. The wound was then closed entirely. It healed by the first intention. There was not a bad symptom, and in ten days she was convalescent. This is the second successful case in which the author has returned the pedicle and ligature into the abdomen.

Thus, up to the date of the paper, the author has performed ovariotomy in twelve cases. Of these, three have died, and nine have perfectly recovered. One of them has since become pregnant.

Mr. Spencer Wells said that he had been especially interested during the reading of the paper by the account of the two cases in which the pelvic adhesions had been so extensive, and by the mode in which the author had secured the pedicle in two other cases. He (Mr. Wells) felt that those who were learning how to lessen the mortality after ovariotomy had no more difficult problem to solve than the best way to deal with the pedicle. The fact that the author had in two successful cases tied the pedicle and returned it, with the ligature cut off short, into the peritoneal cavity, leaving the ligature and the portion of pedicle which it strangulated within that cavity, and closing the wound entirely, was very surprising; but it taught a very important lesson, and if it did not lead him (Mr. Wells) to follow the example so set without modification, it would certainly encourage him, in any suitable case, to tie the vessels only (not the entire pedicle) with wire, to cut off the ligatures short, return the pedicle, and close the wound. With regard to pelvic adhesions, he would remark that he looked upon them as one of the most serious indications against ovariotomy. He had several times refused to operate where dislocation of the uterus and the presence of fixed portions of an ovarian tumour between the uterus and rectum or the uterus and bladder had been detected; and in cases in which the patients had died of the natural progress of the disease the justice of the decision had been proved. In one case, the rectum, uterus, cyst, and bladder were found so fused together that it was almost impossible to separate them after death. Occasionally, it was extremely difficult to say whether portions of ovarian tumours in the pelvis were adhering there, or were simply pressed downwards and non-adherent. He had two cases of this kind now in the Samaritan Hospital, and he intended to tap the abdominal cysts to see if (when those were empty) the pelvic portion could be pushed upwards. In this manner he had cleared up the diagnosis in other cases. It was only by carefully observing various cases that we could arrive at the knowledge of the conditions which render ovariotomy advisable or otherwise; but we are now beginning to learn this, and to be able to say to a patient or to her friends either that the case is one where recovery may be hoped for very confidently, or one where the prospect of success or failure is about equal, or one where the conditions are so unfavourable that no reasonable hope of success could be entertained. Among these conditions he was disposed to class pelvic adhesions. At least this was the result of his own experience, and the two fatal cases narrated this evening supported that view. The Profession in general, and those who were endeavouring to diminish the mortality after ovariotomy in particular, were much indebted to the author for this addition to their knowledge.

A Paper, by Dr. Tilbury Fox, was read on

THE VESSELS CONCERNED IN THE PRODUCTION OF PHLEGMASIA DOLENS.

The author first referred to Dr. Mackenzie's experiments as insufficient to determine the question of the production of phlegmasia dolens, and proceeded to argue that venous obstruction is followed by œdema only; that the action must be the same, whether the obstruction be produced locally or indirectly through a vitiated blood condition. If any difference in the two cases existed, the changes over and above œdema, which characterise the lesion as phlegmasia dolens, must be ascribed to the action of the blood state (which is absent in the locally produced disease) upon the general textures of the limb. If this view be adopted, the influence of the veins is *nil*, and we must look for the explanation in a special action carried on between the blood and the tissues. That the clinical history forbids the acceptance of such a doctrine, inasmuch as the very conditions (viz., blood-vitiation tending to produce "phlebitis") which are regarded as the cause of phlegmasia dolens very frequently exist, and yet are very rarely followed by white leg—for example, in the various blood-poisonings unconnected with the parturient condition. That if produced under the circumstances mentioned, the disease ought not to be so frequently unilateral, nor confined to the lower limbs. That the occurrence of white leg in cases of cancer, phthisis, pressure, etc., could not be explained hereby. That the death-rate of phlegmasia dolens forbad the same interpretation of the phenomena. That in the experiments of the injection of lactic acid into the blood by Dr. Mackenzie, there was no evidence to show that in the dogs operated upon anything but œdema resulted. That the existence of phlebitis, except as the rarest feature, is fallacious in cases of venous disease. Attention was then drawn to the distinction between the coincidences and the essentials of phlegmasia dolens, as in the case of puerperal fever complicated by the latter. For example, take away from the general total of such a case the proper puerperal fever symptoms, and the phlegmasia dolens remains in perfect integrity; *per contra*, take away the hot, white, tense, elastic swelling, and the puerperal fever remains in its entirety. In the combination, however, the pathological changes normal to phlegmasia dolens may be modified by the tissue actions (abscess, etc.), which are the consequences of the existence of a virus in the blood; in uncomplicated phlegmasia dolens, the tissues are passive, so to speak. The succeeding remarks went to show that the theory propounded by White was correct with regard to the nature, though not as to the cause, of phlegmasia dolens; that in the natural condition a large quantity of lymph travels from the limbs towards the thoracic duct, and when this current is impeded markedly white leg resulted. The case of the absorption of a poison into the cellular tissue (which, according to some, controverts White's opinion) was examined, and it appeared that this might or might not be followed by phlegmasia dolens, according as the obstruction in the lymphatics affected the main current or merely some minor channels (the latter being the rule); the swelling being modified in severe cases, as before observed, by the relative action of the septic blood state and tissues. Cases were quoted to prove that lymphatic obstruction is sufficient, and alone necessary, to give rise to phlegmasia dolens. The paper concluded with the following summary:—1. Phlegmasia dolens is a local disease. 2. No general symptoms need be present (implying absence of blood-poison). 3. Phlebitis, however produced, cannot give rise to phlegmasia dolens, but œdema only. 4. Phlegmasia dolens may occur in, but forms no necessary part of, blood-poisoning (such as tends to phlebitis), but is modified thereby frequently; and any tissue conditions over and beyond the presence of fibrinous serosity, and the consequent hypertrophous state of the areolar tissue, are in nowise essential components of phlegmasia dolens, but common alike to very many different "blood" diseases. 5. Obstruction to the main lymphatic channels alone is capable of giving rise to white leg, and acts by preventing the removal of the lymph from the affected limb. 6. The obstruction may be the result of (*a*) extrinsic pressure; (*b*) thrombosis due to sudden (compensatory) absorption of vitiated fluid after sudden loss of any kind; (*c*) inflammatory changes in the vessels themselves (rare). 7. The effect of the action of venous obstruction upon the phlegmasia dolens is an intensification of the general swelling, and the presence of œdema during the subsidence of the enlargement of the limb. Lastly, a frequent, but unrecognised, source of blood-vitiation was

alluded to, namely, in cases where large tracts of cellular tissue were diseased—as in erysipelas, sloughing, cancerous, phthisical, and dysenterie ulcerations, and the like—the lymphatics, charged with *effete* matter, and an excessive number of imperfectly-developed pale cells, formed in their glandular part, poured their contents into the venous system from the thoracic duct; and this might be a cause of thrombosis at the right side of the heart and in the vessels leading to the lung.

Dr. Tyler Smith thought the Society very much indebted to Dr. Fox for the able way in which upon several occasions he had brought forward this important subject. His own view was that all the symptoms of phlegmasia dolens might be produced either by obstruction of the veins, arteries or lymphatics; but that pathology and clinical observation combined to show that obstruction of the veins was the lesion most frequently found in these cases. The author of the paper had rendered a service by directing special attention to the lymphatics in this disease—a point which had been somewhat lost sight of in the present day.

Dr. Fox, in reply, asked the President to explain how phlegmasia dolens resulted in cases where no trace whatever of venous disease existed post-mortem; and how it was, supposing blood-vitiation and venous obstruction to be the cause, that sometimes œdema and sometimes phlegmasia dolens resulted; why the swelling commenced sometimes above and sometimes below; why phlegmasia dolens, which was a greater degree of disease than œdema, resulting from blood-vitiation (according to prevailing theories), possessed so low a mortality. It was evident in blood-disease, as appears from recent pathological inquiry (especially brought out in the late discussion on puerperal fever at the Parisian Academy), that the lymphatics are as frequently affected as the veins, as in the broad ligament of the uterus. A distinction must be drawn between thrombosis and inflammation of the lymphatics, which was usually due to septic poison, obstruction being uncommon, and certain tissue actions, set going in answer to the blood state, modifying the whole character of any swelling. He (Dr. Fox) did not throw cold water upon pathological facts, for the paper was based upon such; but thought that experimental evidence, such as that brought forward by Dr. Mackenzie, should not set aside clinical facts.

MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen passed the First Part of the Professional Examination for the Licence of the College on July 4, 1862:—

Vivian Wearne, St. George's Hospital; John Foot Churchill, Charing-cross Hospital; Aaron George Medwin, Guy's Hospital; Shophard Thomas Taylor, King's College; Matthew Trevan, St. Bartholomew's Hospital; Richard Douglas Powell, University College; John Blount Fry, Sydenham College, Birmingham; Alexander Bruce, University College; Arthur Evershed, Arthur George Mickley, John Jones Phillips, and Edward Whitfeld Thurston, Guy's Hospital.

Also on the 5th:—

Thomas Carter, Guy's Hospital; William Philipps Bingley, University College; Sedley Wolferstan, St. Bartholomew's Hospital; Frederic Thomas Hindle, Guy's Hospital; Edward Sutcliff, St. Thomas's Hospital; Frederic Long, Guy's Hospital; William Gallimore Hayden, Charing-cross Hospital.

Also on the 7th:—

John Foster, University College; Thomas Osmond, St. Bartholomew's Hospital; William Gill, Truro, Cornwall; Thomas Edward Williams, and Richard Luscombe Elliot, St. Bartholomew's Hospital; Henry John Hunt, King's College; Fleetwood Buckle, St. Bartholomew's Hospital.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 3, 1862:—

Alfred Johnson, Blossom-street, York; Edward Thomas Newbold, Macclesfield; John Maugin Waters, 15, Bedford-square; Thomas Jones, Llandyssil, Cardigan; Jonathan Dalgliesh, Newcastle-on-Tyne; James Allen, Bollington, Macclesfield; John Talfourd Jones, Brecon; William Sturdy Bramley, Wakefield, Yorkshire.

The following gentlemen also on the same day passed their First Examination:—

Benjamin W. Pearson, St. Thomas's Hospital; Matthew Trevan, St. Bartholomew's Hospital; George Wall, Guy's Hospital.

APPOINTMENTS.

Bayly.—Joseph Bayly, M.R.C.S. Eng., L.S.A. Lond., Surgeon to the Yarmouth Royal Hospital, has, on retiring by rotation, been elected Surgeon for life.

Betts.—George Harvey Betts, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer and Vaccinator to the Highgate District of the Edmonton Union, Middlesex, *vice* John Franks Chittenden, M.R.C.S. Eng., L.S.A. Lond., resigned.

Dalrymple.—Mr. W. Dalrymple has been elected Dispenser to the Leicester Provident Dispensary.

Deyns.—Frederick Deyns, M.D. Coll. Phys. Surg. N. York, L.R.C.P. Lond., M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Fenny Stratford District of the Newport Pagnell Union, Bucks, *vice* Mr. William Lucy, M.R.C.S. Eng., L.S.A. Lond., resigned.

Eves.—July 3, Augustus Eves, M.D., F.R.C.S. (Hon.), has been appointed Consulting Surgeon to the Cheltenham General Hospital, on his resignation of the office of Senior Surgeon.

Gibb.—George Duncan Gibb, M.D. McGill Coll., Montreal, M.A. M.R.C.P. Lond., L.R.C.S. Irel. and L.M., has been appointed Physician to the West of London Hospital and Dispensary, Broadway, Hammersmith, *vice* Thomas Gordon Hake, M.D. Univ. Glasg. M.R.C.P. Lond., resigned.

Plummer.—Jonah Plummer, M.R.C.S. Eng., has been elected Medical Officer for District No. 3 of the York Union, *vice* John Benson Pritchett, M.R.C.S. Eng., and L.M. L.S.A. Lond, resigned.

Rogers.—George Goddard Rogers, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng., has been appointed Physician to the West of London Hospital and Dispensary, *vice* John Thomas Arlidge, M.R.C.P. Lond. (exam.), M.R.C.S. Eng., appointed Senior Physician to the North Staffordshire Infirmary.

Saul.—William Saul, M.R.C.S. Eng., L.S.A. Lond., has been elected Surgeon to the St. Pancras Infirmary and Workhouse, *vice* William Tyeth Coster, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., L.S.A. Lond., resigned.

Skae.—David Skae, M.D. Univ. St. And., F.R.C.S. Edin., Medical Superintendent of the Royal Lunatic Asylum, Morningside, Edinburgh, has been elected President of the Association of Medical Officers of Asylums and Hospitals for the Insane.

Thornhill.—John Thornhill, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Gosforth District of the Castle Ward Union, Northumberland, *vice* William Frederick Napoleon Wilson, M.R.C.S. Eng., L.S.A. Lond., resigned.

DEATHS.

Donnelly.—Recently, Samuel Donnelly, Staff-Surgeon, R.N. (May 16, 1842.)

Holden.—May 17, Horatio Nelson Holden, Assistant-Surgeon 21st Regiment of Foot, on half-pay.

Jackson.—July 4, Mark Wilson Jackson, of St. Martins, Stamford, Lincolnshire, F.R.C.S. Eng., L.S.A. Lond., Senior Surgeon to the Stamford and Rutland General Infirmary, aged 60.

Medd.—July 3, John Medd, of the Mansion-house, High-street, Stockport, Cheshire, F.R.C.S. Eng. (Hon.), L.S.A. Lond., Senior-Surgeon to the Stockport Infirmary, aged 57.

O'Neill.—July 5, Thomas O'Neill, Esq., late of the Madras Medical service, aged 66.

Powell.—July 2, Charles Powell, Haw House, Olvestone, near Thornbury, Gloucestershire, M.R.C.S. Eng., L.S.A. Lond.

Smith.—June 25, at Kuighton, Radnorshire, Frederic Smith, Surgeon, aged 51.

Stewart.—July 2, John Stewart, of 73, George-street, Edin., M.D. Univ. Edin., L.R.C.S. Edin., aged 68.

Somerset.—July 5, at the Manor House, Milton, Wilts, John Somerset, M.D. aged 76.

Watson.—July 1, at Hunter's Cottage, Canaan-lane, Morningside, Edinburgh, Robert Watson, F.R.C.S. Edin., late Captain of the 43rd Regiment of Foot.

LONDON GAZETTE.

July 4.

12th Surrey Rifle Volunteer Corps.—Edwin Cocks, Esq., to be Honorary Assistant-Surgeon; dated July 1, 1862.

1st Battery of Cheshire Artillery Volunteers.—Edward Long Jacob, Esq., M.D., to be Honorary Assistant-Surgeon; dated June 5, 1862.

July 8.

The dates of the promotion of the following to be antedated as below:—

Surgeon-Major Francis Charles Annesley, from 45th Foot, to be Surgeon; dated July 8, 1862.

Staff Surgeon-Major John Summers, M.D., to be Surgeon; dated July 8, 1862.

Staff Assistant-Surgeon John Low Erskine, M.D., to be Assistant-Surgeon; dated July 8, 1862.

Staff Assistant-Surgeon William Ferguson to be Assistant-Surgeon; dated July 8, 1862.

Staff Assistant-Surgeon Thomas Smith Hollingsworth to be Assistant-Surgeon; dated July 8, 1862.

Staff Assistant-Surgeon Henry Lloyd Randell to be Assistant-Surgeon; dated July 8, 1862.

Assistant-Surgeon John Henry Gouldsbury Meares, from the 20th Foot, to be Assistant-Surgeon; dated July 8, 1862.

Staff Assistant-Surgeon Richard Armstrong Hyde to be Assistant-Surgeon, *vice* Meares, appointed to the Royal Engineers; dated July 8, 1862.

Staff Surgeon Digby William Lawlor to be Surgeon, *vice* Boyd, appointed to the Staff; dated July 8, 1862.

45th Foot.—Staff Surgeon Robert Speedy to be Surgeon, *vice* Annesley, appointed to the Royal Engineers; dated July 8, 1862.

54th Foot.—Staff Assistant-Surgeon John Henry N. Bracken to be Assistant-Surgeon, *vice* Reid, appointed to the Staff; dated July 8, 1862.

90th Foot.—Staff Assistant-Surgeon Patrick Quinlan to be Assistant-Surgeon, *vice* Poppelwell, appointed to the Staff; dated July 8, 1862.

Medical Department.—Surgeon William Boyd, from the 25th Foot, to be Staff Surgeon, *vice* Speedy, appointed to the 45th Foot; dated July 8, 1862.

Staff Assistant-Surgeon John Ogilvy, M.D., to be Staff Surgeon, *vice* Thomas Moore Sunter, M.B., placed upon half-pay, dated July 8, 1862.

Staff Assistant-Surgeon Augustus Frederick Turner to be Staff Surgeon, *vice* Lawlor, appointed to the 25th Foot; dated July 8, 1862.

Staff Assistant-Surgeon William Stewart, M.D., to be Staff Surgeon, *vice* Surgeon Major John Summers, M.D., appointed to the Royal Engineers; dated July 8, 1862.

Staff Assistant-Surgeon William Mackenzie Skues, M.D., to be Staff Surgeon, *vice* Porter, appointed to the 89th Foot; dated July 8, 1862.

Assistant-Surgeon Edwin Drew, from the 83rd Foot, to be Staff Assistant-Surgeon, *vice* Hyde, appointed to the 20th Foot; dated July 8, 1862.

Assistant-Surgeon Alexander Reid, from the 54th Foot, to be Staff Assistant-Surgeon, *vice* J. Ogilvy, M.D., promoted on the Staff; dated July 8, 1862.

Assistant-Surgeon George Bell Poppelwell, from the 90th Foot, to be Staff Assistant-Surgeon, *vice* Turner, promoted on the Staff; dated July 8, 1862.

Staff Assistant-Surgeon Alfred Frederick Stafford Clarke, M.D., from half-pay, *vice* W. Stewart, M.D., promoted on the Staff; dated July 8, 1862.

Staff Assistant-Surgeon Augustus Robinson Hall, from half-pay, *vice* W. M. Skues, M.D., promoted on the Staff; dated July 8, 1862.

Staff Assistant-Surgeon James Watt, M.D., from half-pay, *vice* Braeken, appointed to the 54th Foot; dated July 8, 1862.

Staff Assistant-Surgeon Edward Footner, from half-pay, *vice* Quinlan, appointed to the 90th Foot; dated July 8, 1862.

First Norfolk Mounted Rifle Volunteer Corps.—Emanuel Cooper to be Honorary Assistant-Surgeon; dated July 1, 1862.

William Smith to be Honorary Veterinary Surgeon; dated July 1, 1862.

First Corps of East York Rifle Volunteers.—Thomas Stevenson Usher, Esq., M.R.C.S., to be Honorary Assistant-Surgeon; dated June 30, 1862.

First Glamorganshire Light Horse Volunteers.—Reginald Pearce, Gent, to be Honorary Assistant-Surgeon; dated July 2, 1862.

The following appointment is substituted for that which appeared in the *Gazette* of April 20, 1860:—

Second Forfarshire Artillery Volunteer Corps.—David Johnston, Esq., to be Honorary Assistant-Surgeon; dated April 10, 1860.

The Society of Arts gave a brilliant *conversazione* at the South Kensington Museum on Wednesday evening.

Middlesex Central Coronership.—On Wednesday the Sheriffs of London and Middlesex made declaration, at Park-crescent, Portland-place, of the state of the poll for the Coronership of Central Middlesex. The proceedings commenced shortly before one o'clock, but long before the declaration was made a crowd had assembled in front of the hustings. Dr. Lankester and Mr. C. E. Lewis made their appearance on the hustings, and were warmly received. The Sheriffs, when the examination of the poll-books with the register was completed (which occupied all the morning), announced the result of the poll:—For Dr. Lankester, 1131; and for Mr. C. E. Lewis, 1084. The majority for Dr. Lankester amounts to 47. The announcement was received with loud cheers, and Dr. Lankester was declared to be duly elected. The Sheriffs then administered the oaths to him relating to his office. Mr. C. E. Lewis shook hands with Dr. Lankester amid loud cheers. Dr. Lankester then, addressing the crowd, said that all irritation and personalities connected with the contest would now be forgotten, and he should proceed conscientiously, as he had sworn to do, to discharge the duties of the office to which he had been elected. Mr. C. E. Lewis said that neither the defeat he had met with nor the rain that was descending could prevent him congratulating Dr. Lankester on the declaration of the poll. He did not give up his right to test the validity of the election, but would take every legal means in his power to show whether his opponent had a pure majority or not. Dr. Lankester will forthwith proceed in the discharge of the duties of his office for the Central District. It is understood that the salary, which is to be paid by the Middlesex Magistrates, subject to the right of appeal to the Home Secretary, will be about £1200, including all expenses of the office.—*Times.*

Murder by a Lunatic at Weymouth.—A murder was committed on Tuesday at the village of Sutton, near Weymouth. It appears that a man named Cox had been labouring under brain disease for some time, and was under the treatment of Mr. Puckett, the parish Surgeon. It had been determined to remove him to the County Asylum, at Farston; but unfortunately it had been expressed in Cox's hearing. On the day in question Mr. Puckett went to Cox's house, with a man named White, to remove him; but on hearing that Cox had threatened to murder him, and had been very violent, White was sent for a cart, while the Doctor went in to Cox and endeavoured to quiet him; but the lunatic directly darted at him, and said he would kill him. Mr. Puckett immediately ran outside the door, and held the handle to prevent Cox from getting out, on which Cox tried to jump out of the window, but was prevented by some iron bars fixed in front. The Doctor incautiously let go the door, when Cox rushed out and felled him to the ground with part of a bedstead, after which he dragged the body into the house, procured a saw, and deliberately sawed off the unfortunate man's head, right hand, and right foot. Cox's father and mother were outside, but so terrified as to be incapable of rendering any assistance. He also threatened his sister, who was in the house, but she ran upstairs and hid herself. Cox afterwards rifled the deceased's pockets, threw the several members into the road, kicked them about most fiendishly, and then ran away. After a short time he was captured at the Plough Inn, Osmington, and conveyed in safety to Weymouth. The deceased remains were taken to the Ship Inn, Sutton, where they await an inquest. Mr. Puckett was over 60 years of age, and was highly respected by all who knew him.

Collegiate Elections.—A special meeting of the Council of the Royal College of Surgeons of England was held on Monday, the 7th instant, to elect a member of the Court of Examiners in the vacancy occasioned by the decease of Mr. Edward Stanley. After a very sharp contest, unprecedented in the annals of the College, Mr. Francis Kiernan, F.R.S., a member of the Senate, and until recently, and for upwards of twenty years, an Examiner in the University of London, was elected. (Mr. Gilbert Wakefield Mackmurdo, of St. Thomas's Hospital, was the next senior member of the Council for the vacant Examiner's chair, but this gentleman declined to be put in nomination.) At a meeting of the Council on the 10th inst., Mr. James Luke, F.R.S., of the London Hospital, who filled the office of President in 1853, again received this honour from the hands of his colleagues, and Mr. Frederic Carpenter Skey, F.R.S., of St. Bartholomew's Hospital, and Mr. Joseph Hodgson, F.R.S., were elected Vice-Presidents for the ensuing year,—the former gentleman also for the second time. Mr. Samuel Solly, F.R.S., of St. Thomas's Hospital, was appointed Professor of Human Anatomy and Surgery, and Mr. George Gulliver, F.R.S., and Mr. T. H. Huxley, F.R.S., were appointed Professors of Comparative Anatomy and Physiology. Mr. Gulliver will also deliver the Hunterian Oration on the 14th of February next.

Laying of the First Stone of the New College of Physicians in Dublin.—On Monday last, the first stone of the new Hall about to be erected in Kildare-street, Dublin, on the site of the old club-house, by the King and Queen's College of Physicians, was laid by His Excellency the Earl of Carlisle, K.G., Lord-Lieutenant of Ireland. The arrangements made for the performance of the ceremony and for the accommodation of the spectators were perfect. The foundation of the proposed building was boarded over, and in the centre a raised platform was erected, on which chairs were placed for the Viceroy and the principal visitors. This platform was carpeted, and covered with an awning; and at either side of it were ranges of seats rising tier above tier. In addition to the President and Fellows of the College, and a numerous attendance of the Profession generally, a large number of ladies and gentlemen were present. Among the more distinguished visitors were the Earl of Meath; Lord Brabazon; the Lord Justice of Appeal; the President of the Royal Hibernian Academy; Colonel Lake; the ex-Lord Mayor; Sir H. Brownrigg; Sir Bernard Burke, Ulster King at Arms; etc. His Excellency having taken his seat, was addressed by the President, Dr. Corrigan, who entered into a brief history of the College, from its first incorporation by Charles II., and its re-incorporation by William and Mary, from which latter it derives the title it at present bears. Dr. Corrigan stated that by a recent Act of Parliament the College is authorised to change its designation to that of "The Royal College of Physicians," but that its members are so attached to the name of "Queen," that they have determined to retain their present style. After some further remarks, in the course of which he alluded to the great benefits conferred upon the Profession in Ireland by Sir Patrick Dun, who procured the present charter for the College, and bequeathed his fortune to found a School of Medicine under its guardianship, by Dr. Richard Steevens, Dr. Mosse, and the late Richard Carmichael, the learned President concluded in the following words:—"The present year will be remarkable in our annals, not alone as the era of the foundation of our new College, but for an important improvement in legislation affecting our body. For this advantage we are indebted to the Chief

Secretary for Ireland, the Right Hon. Sir Robert Peel, whose absence we regret, as we hoped to have the pleasure of thanking him in person on this occasion. The Act introduced and passed by Sir Robert Peel will come into operation on the 1st of September next. Previously to the passing of this Act we could only elect to the Fellowship of our College the graduates of three Universities,—practically we were limited to one,—but after the 1st of next September we shall be no longer thus trammelled. We shall then have power to award without distinction to all those of our Profession whose personal conduct and professional merits deserve it, the Fellowship of our College. We shall attain our true position, recognising perfect freedom in education; and our only question henceforth will be, as it ought to be, what a man knows, not where he learned it. It is only just to the memory of Sir Patrick Dun to observe that no such restriction as that I have noticed as hampering the action of our College existed in the charter obtained by him. It was imposed by an Act of Parliament of 1800. Fully impressed with the responsibility entailed upon us of truly carrying out the wise intentions of our founder, relieved from the restrictions that impeded our progress, heartily desirous of promoting the cultivation of our science, and maintaining, as far as falls to our department, the scientific position of our metropolis, we shall endeavour to fulfil to the best of our capability the trust we hold. In conclusion, I have now to thank, most sincerely and gratefully, the Fellows of my College, who have so far overrated my poor abilities as to place me in the proud position of their President, and to deem me deserving of wearing, on this occasion, the robe which has descended through a long line of eminent men from our first President, Sir Patrick Dun. It therefore remains only for me, on the part of myself and the Fellows of my College, to repeat the request, to which we have already received a gracious reply, that your Excellency would confer on us the honour of laying the first stone of our new College Hall." (Loud applause.) At the conclusion of Dr. Corrigan's address, His Excellency proceeded to the place where the stone was suspended, and performed the ceremony of laying it in the usual manner. A glass vessel containing some current coins of the realm, and the following inscription on vellum were deposited in a cavity in the stone:—"King and Queen's College of Physicians in Ireland.—The first stone of this building was laid by His Excellency, George William Frederick, Earl of Carlisle, K.G., Lord-Lieutenant General and General Governor of Ireland, Monday, July 7, 1862. *President*—Dominic John Corrigan, M.D. *Vice-President*, Aquilla Smith, M.D. *Censors*—Aquilla Smith, M.D., James Foulis Duncan, M.D., John Ringland, M.D., William Moore, M.D. *Registrar*—Lombe Atthill, M.D. *Architect*—William Murray Esq. *Builder*—William H. Beardwood. In laying the stone His Excellency used a silver trowel, with the handle of Irish bog oak richly carved with shamrocks, which was manufactured by Mr. John Donegan, of Dame-street. On the front of the trowel the arms of the College and the following inscription were tastefully engraved by Mr. Richardson:—"Presented to His Excellency George William Frederick, Earl of Carlisle, K.G., Lord-Lieutenant General and General Governor of Ireland, by the President and Fellows of the King and Queen's College of Physicians, on the occasion of His Excellency laying the first stone of their new College-hall in Kildare-street, Dublin, July 7, 1862." Having declared the stone well and duly laid, the Lord-Lieutenant returned to the daïs and spoke as follows:—"Dr. Corrigan, Ladies, and Gentlemen,—I consider it both an honour and happiness to perform any part in the good work of laying the foundation of the new Hall of the King and Queen's College of Physicians in Ireland. This City of Dublin is not without its fair allowance of comely architectural buildings, whether for the purposes of business, of pleasure, of learning, or of charity; but surely none can have been raised for a nobler or more benevolent end than that which we have met to inaugurate. The immediate site on which we stand has till very recently been appropriated to uses of social intercourse and good fellowship. We grudge them not the ampler space and proportions which they have now obtained hard by, but certainly if to soothe and to save life is a higher function than merely to enjoy it, this spot will lose nothing of interest or dignity in its new consecration (applause). Glad I, therefore, must justly be to find myself in any way united with the objects and members of a Profession who fill so exalted a place in the service of humanity. Among the Medical bodies of Dublin it has been my happy fortune to know many who have coupled their special professional gifts with all the qualities that can exalt, and all the graces that can adorn our life. I think it a happy omen for the work of this day, that the Profession has found a President so entirely worthy to represent it as Dr. Corrigan (loud applause). May the blessing of the Most High rest on his undertaking. May those who fill the high places in the Medical Profession of this country be ever more associated with the high ability and conscientious worth which have hitherto rendered it illustrious, and which have attracted to this city from all shores crowds who deemed it a privilege to sit at their feet and profit by their lessons; and may the building of which we have just laid the first stone ever take within and send without its portals a long succession of pupils and students who shall carry from its honoured walls the learning, the skill, and the devotedness which shall soothe suffering, prolong the lives, and increase the happiness of the coming generations." (Loud applause.) His Excellency then retired, and the proceedings terminated. On the following day the President entertained His Excellency the Lord-Lieutenant, the Earl of Meath, Baron Hughes, Sir Edward Grogan, Bart., M.P., Sir Robert Shaw, Bart., Sir Robert Kane, the Provost of Trinity College, the Fellows and Licentiates of the College of Physicians, and a large party, at a *d-jeuner* at his beautiful marine residence, Inniscorrig, Dalkey.

John Nemo, 42, described in the calendar as a linguist, of superior education, and who was said to be a Doctor, was charged with obtaining money by false pretences. One of the prosecutors was Mr. John Hannay, of 25, Inverness-terrace, Bayswater, and it appeared that towards the end of December last the prisoner called at his house in the after part of the day, and represented himself to be Dr. Simpson, Professor, of Heidelberg, and a nephew of Dr. Simpson, of Edinburgh, and said he had come from Heidelberg, by way of St. Helier's and Jersey, to see an old schoolfellow, a son of Professor Balfour, of Edinburgh. He stated that he had crossed to Southampton, and having, in consequence of a stormy passage, had very little rest, he fell asleep in the train on the way from Southampton to London, was robbed of his money, and for want of means, could not go to Edinburgh; but it was important that he should go that night, and he required some assistance. Believing what he said to be true, Mr. Hannay let him have £2, on condition that it was to be returned; but it was not, and nothing was heard of the prisoner until he was in custody on the other charges. In the other cases he obtained money from Captain Walter Palk Carew, of the Horse Guards, by representing himself to be Dr. Gillard, of Newton Abbott, Devon, and saying that in making some geological researches he had been robbed; and from Mr. T. H. Massey, of 56, Gloucester-crescent, Hyde Park, by stating that he was Dr. Sutton, of Newark, and that having lost his luggage in crossing from Jersey, he wanted assistance to proceed to Newark. The prisoner was apprehended by Sergeant Boden, 11 D, as he was coming out of the House of Correction, where he had been imprisoned on another charge in the name of Temple. He acknowledged that he was the person who had obtained the money in different names. The jury found him "Guilty," and the learned Judge sentenced him to three years' penal servitude.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·697 in.
Mean temperature	56·8
Highest point of thermometer	76
Lowest point of thermometer	44·4
Mean dew-point temperature	50·7
General direction of wind	Variable.
Whole amount of rain in the week	0·35 in.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 5, 1862.

BIRTHS.

Births of Boys, 862; Girls, 853; Total, 1715.
Average of 10 corresponding weeks, 1852-61, 1530·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	599	560	1159
Average of the ten years 1852-61	532·0	498·9	1030·9
Average corrected to increased population	..	..	1134
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	1	12	2	7	7	7
North ..	618,210	..	11	13	5	10	20	7
Central ..	378,058	..	8	8	2	1	12	3
East	571,158	1	29	8	1	5	14	5
South ..	773,175	1	13	10	6	7	9	4
Total.. ..	2,803,989	2	62	52	16	30	62	26

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

In the Trinity College (Dublin) List, the name of "Thomas Moore Sunter" was omitted under the head of "Doctor of Medicine."

Margate.—The Paper on Mentod, accompanied by a plate, will appear in our next Number.

It is very unlikely that Parliament will sanction any measure which shall introduce a new grain weight. The Medical Council can revise this part of their scheme without affecting the remainder.

The following important Papers will be published as soon as possible, and we only regret that the press of matter prevents our doing justice to all our contributors as early as we could wish:—Dr. Ussher, of Canterbury, "On Diabetes;" Mr. Macdouald, of Wrexham, "On Gangreue of the Lung;" Dr. Whitehead, of Manchester, "On Estimates of Mortality;" Dr. George Ellis, "On Rennet Wine;" Dr. Leared, "On Arsenic in Phthisis;" Dr. Bushnan, "On Certifying in Cases of Lunacy;" Dr. Scott Alisou, "On Consumption;" and Dr. Althaus, "On Mineral Waters."

Erratum.—The Ludgate-hill Murders, page 24, *for* "Quantitative" *read* "Qualitative."

J. Q. C.—He cannot legitimately practise Medicine. The Medical Act provides "that every person registered under this Act shall be entitled, *according to his qualification or qualifications* to practise Medicine *or* Surgery, or Medicine and Surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for Professional aid, advice, and visits, and the cost of any Medicines or other Medical or Surgical appliances rendered or supplied by him to his patients." The registration of a Surgical diploma, therefore, gives a right to practise Surgery, and to recover for Surgical appliances and Medicines in Surgical cases, but nothing further.

Hay Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The pathology of "Hay Fever," so adequately and minutely described by Mr. Calcott, is, I think, justly to be received. But it is a curious fact that when a student I was especially subjected to this debilitating and truly harassing species of catarrh. Not that one can for one moment doubt but that the "pollen" from the ripe grasses, may be, and is, distributed over the surface of the Metropolis at large. Still it appears singular that the paroxysms should have assumed a more severe form, with increased intensity, there than in the majority of cases I have met with in the country. I find the veil to act as a decided percolator, and in some cases to be beneficial. But every man has a certain amount of obstinate patients who will, under no circumstance whatever, adopt this efficacious and simple treatment; and where a case of this sort occurs (one of which I now have, who is absolutely obliged to keep her bed, the febrile symptoms being of so serious a type), the veil is, in the first place, uncalled for and impracticable, and the Turkish bath is, for the most part, unattainable in the country; I am, therefore, at a loss in this individual case to know how, by pharmaceutical or practical means, to do justice to the satisfaction of my patient.

If any of your correspondents can furnish me with further aid (with many thanks for that already brought forward) I shall deem it a lasting favour. I am, &c.

Frederic J. Sutton.

Chloroform Accidents.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It has been suggested to me that certain words in my letter of last week might possibly be misunderstood, and interpreted as conveying a slight to the country Practitioners. I hasten, therefore, to say that the word "provincial" was merely introduced as an illustration of a limited experience in anæsthesia. I pictured to myself, while writing, a Surgeon in some remote part of the country who had never, or almost never, administered the anæsthetic before, suddenly called upon to do so. The man might be the most skilful Surgeon possible, and yet he might be thoroughly "raw" as regards the administration of chloroform.

I should be sorry, indeed, if my indignant protest against what I consider a very bad mode of chloroformisation were construed into an attack upon any individuals or classes of my Professional brethren; and I beg, Sir, that you will give an early insertion to this explanation of my real meaning. I am, &c.

Ouslow-square, July 9. Francis Ed. Anstie.

A Remarkable Instance of Health and Longevity in a Man of more than 100 Years.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Richard Purser was born in the village of Redmarley, in Worcestershire, on the 14th of July, 1756, in the reign of George II. He remembers the coronation of George III., which took place in September, 100 years ago, when he was about five years old. He spent most of his long life in Redmarley, where he married at 40 a young woman, by whom he had eight children; six of whom are now alive. His oldest grand-grandchild is 14 years of age, dwelling with his granddaughter in America. His wife died at 50; and his parents were not very old. He came to Cheltenham forty years ago, and within two years of this date he was carrying on his usual occupation as a gardener and field labourer. He now resides with his daughter and her family, forming one of eleven who live on the ground floor by day, and in three small rooms on the upper floor by night; lodgers occupy the second floor; the mother and young children all look sickly, from want of fresh, wholesome air. The old man is much in the open air, and escapes in this manner probably the ill effects of the bad drainage and foul atmosphere, which he is necessarily exposed to during the night. He sleeps well, and has an excellent appetite. He is not afraid of a little rain, and braves the heaviest weather, rather than omit going to church on Sunday. He never carried an umbrella. In his daily toil, he has got wet through hundreds of times; but he has had no cough, difficulty of breathing, spitting of blood, or inflammation of his lungs; nor any serious complaint, so far as he remembers, all his life, exceepting small-pox and measles in his childhood. His eyesight and hearing are very good; he can distinguish near and distant objects distinctly, and also large and small letters in the Bible, though unable to read it or any other book. He can walk by means of a stick three or four miles. His complexion is ruddy, his hair white, no falling in of the jaw, owing to the presence of six front lower teeth; pulse 70, strong and regular; biliary, intestine, and urinary secretions all normal. Habits have been steady and temperate; spirits equable; temper good. His breakfast usually consists of meat, bread, cheese and cocoa. He also takes meat (when he can afford it) at dinner and supper. He says he feels nothing the matter with him, but "rheumatics of the hip." He obtained a bounty of £5 from H. M. the Queen; but not until it was proved to the satisfaction of Her Majesty's Almoner that he had really passed his hundredth year. That sum is now nearly expended; but it is hoped that similar charity will add a little to his 2s. 6d. per week from the parish. With such vitality and freedom from disease the term of this old man's life may be prolonged twenty years; but this much depends, of course, on his having good nourishment and fresh air, with exception from the ordinary casualties of life.

I have calculated from the invaluable reports of the Registrar-General, that for the last four years 2488 persons have died at the advanced age of 95 and upwards, or on the average 600 per year; about one-seventh of these died at 100 and upwards, the highest age mentioned is 113; in each of the four years the females exceeded the males in the proportion of 2 to 1, and were the longest lived. 2488 persons dying at 95 and upwards are few indeed compared with 1,730,758 who died during that period, *i.e.* from 1856 to end of 1859; or to the fearfully large number, upwards of one-third of the above, who died in these four years under five years of age, the period of infancy; but limited as the number is, there seems reason to believe that it is on a progressive scale, and larger in proportion to any other country in the world. It would be interesting to compare our statistics of aged persons with those of the East and West. I know that a man of 80 and upwards in China was considered a "rara avis"; whereas in this country there are many of that age amongst us who are hale and strong. I made inquiries of the ages of those exceeding 70 in the Workhouse of this town, and I find there are 40 men and 22 women whose united ages make nearly 4000 years. One was 97; the ages of 21 ranged from 80 to 90; and the ages of 40 of them have ranged from 71 to 80. There were 310 persons residing in the Workhouse at that time.

It would be interesting to learn, whether such a large number of aged people could be found in any other Workhouse in the Kingdom.

Wales, the West Midland, and South Western provinces seem to carry the palm as regards longevity; and Gloucestershire will compare favourably in this respect with any other county in England.

I am, &c. Benjamin Hobson, M.B., M.R.C.P., &c.

9, Cambray, Cheltenham.

COMMUNICATIONS have been received from—

Mr. Cornish; Dr. Moore; Mr. Horsley; The Secretary of the Society of Arts; Mr. G. Moore; Dr. H. W. Tuckwell; Dr. Whitehead; Prof. Laycock; Mr. J. Pearson; Dr. B. Walker Foster; Mr. James Bruce; Dr. Boyd Mushet; Mr. George Harday; The Committee of the Great Northern Hospital; Dr. Ramskill; Mr. Wm. Elliott Porter; J. Q. C.; Mr. F. J. Sutton; Mr. R. T. Gore; Mr. J. J. Skegg.

APPOINTMENTS FOR THE WEEK.

July 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

14. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

15. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

18. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergussou—Hare-lip; Removal of Tumour from the Breast; Removal of Epithelial Growth from the Mouth; For Contracted Knee; Excision of the Knee.

By Mr. Wood—Radical Cure of Hernia.

ORIGINAL LECTURES.

CLINICAL LECTURES ON EPILEPSY,

DELIVERED AT

The Hospital for Epilepsy and Paralysis.

By J. S. RAMSKILL, M.D., etc.

Assistant-Physician to the London Hospital; Physician to the Hospital for Epilepsy and Paralysis.

Lecture I.

Gentlemen,—There are to be observed in epileptic seizures four different varieties,—that is to say, all our cases approximate more or less perfectly to these. They are—

1. Where loss of consciousness only apparently constitutes the fit.
2. Where, with loss of consciousness, there is some local tonic spasmodic movement.
3. Where, in addition to loss of consciousness, there is general tonic, and afterwards clonic convulsions.
4. Where, without any loss of consciousness there is general or partial convulsions.

The two first are called "*petit-mal*" or "*epilepsia mitior*," and the first is by far the most rare in practice. It is recognised afterwards,—after one of the two next forms have superseded it. It is usually only a matter of history. I believe individuals are subjects of occasional attacks of it for months without thinking it disease. When associated with the second or third variety it is common enough, and there was an example of it to-day. You observed a patient remarking on his own case; he suddenly ceased to speak; you looked up at him, and by the time you did so the fit was over; he recovered the lost thread of conversation; and if he were not an Hospital patient, you would not have discovered anything wrong with him. Neither, as it subsequently appeared, was the patient for a long time aware that anything abnormal had happened after these attacks.

In this case there was no evident spasm, no twitching of any facial muscle. To-day we may have been too late to observe, the spasm might have come simultaneously with the loss of consciousness, and passed away as consciousness returned; but I have seen him before in these attacks, watched him carefully, and have not caught the faintest sign of spasm. There is for a second a loss of expression of face, or rather an altered expression, and nothing more. He has, according to his own statement, five or six of these attacks if he waits longer for dinner than usual, or in any way becomes tired or exhausted. He came to the Hospital on account of an attack of epilepsia mitior with spasm, which he thought was his first and only fit of epilepsy; and it was a matter of extreme difficulty to make him speak out and express clearly the early history and phenomena of these slighter seizures. Although intelligent, and apparently thoroughly understanding the importance of giving a careful history, he could not tell about what time he first experienced these small seizures, and he believes now that he was always subject to them. Although there was no discoverable spasm or convulsive action in this case, yet it is certain there was a temporary constriction of the minute arteries, of some part of the brain, whereby loss of circulation and nutrition was instantaneously followed by loss of function, viz., of consciousness. The spasm occupied two or three seconds, which was also the duration of the fit. The spasm gave way, circulation was restored, with it nutrition and consciousness. This is an instance of pure *petit-mal*.

The second variety is much more common. It is still *petit-mal*, but with evident tonic contraction of particular muscles. The muscles of the face are usually affected; a slight grimace, a winking of eye, a squint, may be all that can be observed. The convulsive movement may not be of long duration, but it is usually of longer duration, lasting five to forty seconds, or even longer. There is no reason to believe that the facial muscles are only affected; they are more exposed to view, and thus most easily recognised. One of the patients here has no facial affection, but finds both toes turning strongly up, experiences a feeling of being lifted from the ground; sometimes he staggers backwards, but is well again before he has time to fall. A second exhibits a tonic rigidity of the right arm; but in opposition to the last case, he is not aware of it; the cerebral affection comes first, or simultaneously with the rigidity, and he is unconscious; moreover, the spasm passes off just prior to, or simultaneously with, the unconsciousness. A third has cramp in the right calf; he experiences great suffering, it lasts sometimes two or three minutes, and is not always followed *by loss* of consciousness. I have not seen any case of local tonic contraction accompanying the *petit-mal* when that contraction affected the bladder, vesiculæ seminales, or rectum. These parts are only affected, as far as I know, by clonic convulsions, produced probably in a different way—a condition to which we shall hereafter refer. Very rarely I have seen a temporary constriction of the muscular walls of the chest, and a suspension of breathing accompanying the slighter attacks of epilepsy, but never trachelismus. When the chest walls become thus fixed, the face becomes dusky; otherwise in epilepsia mitior the face is always pale, sometimes of an unusually pallid hue, and the attacks are longer than when other muscles are affected; the patient also slides down, falls forward, or twists to one side, whereas in epilepsia mitior without spasm he retains his position, whatever that may be, or he may continue any automatic acts already engaged in, as walking, riding,—those acts requiring volition being only suspended.

These attacks frequently occur in the night, and may be unrecognised for years until the patient accidentally bites his tongue, or until he is led to investigate the reason of a great prostration, headache, or other phenomena of a more severe attack.

So any one, or any group of the muscles of the body may be affected by spasm. The spasm, it is to be recollected, is always tonic, never clonic.

The Third Form is Epilepsia Gravior, or Haut Mal.—In the commencement of the attack consciousness may be suddenly annihilated, and the patient falls with or without a cry. Sometimes he has just sufficient volitional power to move from a place of danger; he may be able to sit down if standing, or to bend down on the rug; he may remember hearing himself scream. Sensation also suffers, but reflex action is not at once abolished, for a dash of cold water on the face will make the patient start. The spasms are for a long period tonic in character, attacking more powerfully particular sets of muscles; thus we have twisting of neck, the head being brought round and raised to one side, with distortion of features; and one side of the body is frequently more affected than the other. Respiration is suspended by fixed tonic contraction of the muscles of the chest walls and diaphragm. The face, at first pale, grows at least dusky; the pupil is widely dilated; the pulse becomes weak, almost imperceptible; the carotids throb, and the veins of the neck stand out distended. Suddenly the tonic spasm breaks, and violent clonic convulsions ensue. One side of the body, one arm and leg is sometimes more violently convulsed than the other. Strange hissing or gurgling noises issue from the throat, and the mouth is covered with foam. Respiration is irregular, tumultuous, laborious; there is a struggle for breath; the chest heaves heavily; alæ nasi are expanded. Duskiness of face becomes darkness; a cold and profuse sweat covers the entire surface of the body. The pupil varies rapidly; the jaws violently open and shut, and tongue gets bitten. The heart beats violently; the pulse throbs, and then the distended veins begin to return to their ordinary size. The bladder and rectum and vesiculæ are frequently affected by the spasm, and empty themselves; gradually the clonic convulsions cease, but recur partially; the patient appearing half conscious, as one roused from heavy sleep, and apparently angry or alarmed. The respiration is still difficult, but not laborious; it is noisy, having a long snorting inspiration, followed by a long interval, or with gurgling noises and moaning. Perspiration gradually ceases, and pupil becomes contracted, and pulse more regular and full. The patient now gradually recovers, or passes into sleep, or into more or less profound coma.

There is yet another form, viz., that in which there is no loss of consciousness whatever, but only general or partial convulsions. These cases are rare; I have at present two. In the first a cramp seizes the calf of the left leg; the patient falls; violent convulsive movements ensue; great fear possesses the patient; the face grows dark and excited, and the fit terminates. There is no loss of consciousness even for a second. The patient talks in an excited manner, is able to ask for the ligature, and direct its application. I shall refer to this case and to the other alluded to hereafter.

Amongst the cases which have come under my notice at the Hospital, less than half have some prodromata, and a certain number a definite aura announcing the approach of the attack. I hold the recognition of any notice of the coming attack of the highest importance, inasmuch as the treatment of the case, as I shall hereafter show, is materially influenced by the kind of warning, or the evidence of an aura. The prodromata have been well divided, by Dr. Reynolds, into—1. Mental and emotional disturbances, of which the most common are drowsiness, obscurity of thought, confusion and talkativeness, inexpressible fear, depression of spirits, and excitement and irritability. Of these I have found the last two by far the most frequent. 2. Sensational disturbances—which include dizziness or vertigo, headache, weight at cardia, sinking at cardia, pain in one or other limb, nausea, and globus hystericus. Of the specific sensational aura arising from the extremities I have met with very few cases: I allude to formication, itching of some part of the skin, and then a shooting upwards "like a flash;" a rising as of steam from the epigastric region is often more common than any other. 3. Motorial disturbances, twitching of face, rigidity of one or other limb, loss of power of one or other limb, general twitching, contraction of fingers, or of arm, or leg, or toes; palpitation of heart, a sense of something turning upside down in epigastric region,—the last two being most common,—and, finally, a definite cramp or muscular aura.

4. *Extrinsic Disturbances.*—The friends of patients have often declared to me they knew a fit impending by the changed aspect,—a darkness about the eyes, a sallowness, with a stupid expression; and I have some cases wherein the approach of the fit could be correctly predicted by an extraordinary coldness of both hands and feet. In others, a profuse flow of urine initiates the paroxysm, and occasionally relaxed bowels. The sequelæ of attacks of epilepsy vary. There is every degree of unconsciousness, from light sleep to profound stupor. Ordinarily the patient may be roused, but he is petulant, peevish, or stupid. The character of stupor, when it exists, is of great importance to notice in a diagnostic point of view. Some patients exhibit very little of it, even after very severe attacks; and these are often of the worst character,—the tendency to stupor being counterbalanced by an extraordinary activity of the grey matter. Nevertheless, ordinarily, after the most severe attacks, I find a proportionately long stupor passing into ordinary sleep, quiet, or disturbed by groaning, moans, and more rarely slight delirium. There occurs occasionally temporary paralysis of a limb, or both, on one side; more often vomiting or diarrhœa. Respiration, at first irregular, is maintained rather below its normal rate; and the pupil remains sluggish, but of normal character.

Before proceeding to the treatment of epilepsy, we must make out for ourselves some theory as to the nature and seat of the disease. We do so because it is impossible to make any progress without theory.(a) We cannot observe without theorising; it is an impossibility. In every case you examine, and in every remedy you prescribe, you form one, if not many theories. Knowledge would be impossible without theory. Simple observations or simple perceptions are mere stimuli to thought. After observation comes comparison with what we already know, and conclusion or inference from the comparison. This conclusion is a theory. This conclusion would be perfectly true if the data were complete and correct, but they are not. Our observations are imperfect, our knowledge is imperfect; our conclusions, therefore, reflect the imperfection of our observations and our previous knowledge, and are never true, but always hypothetical or theoretical, varying from the truth just in proportion as we are ignorant or imperfect observers. Having drawn our conclusion—that is, formed our theory—we may or may not be satisfied with it. If we are satisfied, then we desire to verify it by observation and experiment; or if the conclusion be as to something attainable, then we endeavour to attain it; and this is only another way of testing the theory by experience. To theory, then, in this sense,—that is, tested by observation, or experiment, or experience,—we owe all true progress, for empirical knowledge is stationary.

There have, from time to time, been enunciated various theories concerning both the nature and seat of epilepsy. We will review rapidly the chief points of some of them. Wenzel placed the seat of the disease in the pituitary body. He did so because of the discovered coincidence, of this body in some form of disease or alteration, in persons who had died epileptic. The theory was disposed of by the observation, that of all who died epileptic very few had any lesion of this body; and, moreover, they have been frequently found diseased in persons who never had a fit of epilepsy. Another and more rational theory was that epilepsy depended on disease of the brain, inasmuch as the functions of the brain were more or less affected in all epileptics. That this latter assertion is true is sufficiently evident; but, as in the brains of epileptics, there is frequently no discoverable lesion to be found, and as the loss of function of the brain during the fit, and the cerebral symptoms between the fits can be better explained otherwise than by assuming disease in it, we cannot allow the brain to be the seat, or disease in it the direct cause of epilepsy. Moreover, epileptiform convulsions may exist in animals deprived of the brain. Prichard, followed by Henle, maintained that epilepsy depended upon alteration in the cerebral circulation, assuming that the convulsions are caused by pressure of blood accumulated on the base of the brain. There are many objections to this theory. Amongst the chief is this fact, that in many diseases intense congestion of the brain occurs, especially in intermittent fever of malignant type, without the production of convulsions, and there is no proof that mechanical pressure at the base of the brain by accumulated blood can produce convulsions. Moreover, in a severe fit of epilepsy the convulsions pass off just as the cerebral congestion is at its height. Dr. Todd proposed a theory which has been very largely accepted; it is this in his own words. "I hold that the peculiar features of an epileptic seizure are due to the gradual accumulation of a morbid material in the blood, until it reaches such an amount that it operates on the brain in, as it were, an explosive manner; in other words, the influence of this morbid matter, when in sufficient quantity, excites a highly polarised state of the brain or of certain parts of it, and these discharge their nervous power upon certain other parts of the cerebro-spinal centre in such a way as to give rise to the phenomena of a fit. The theory assumes that the essential derangement of health consists in the generation of a morbid matter which affects the blood, and it supposes that this morbid matter has a special affinity for the brain, or for certain parts of it, as strychnine exercises a special affinity for the spinal cord. The source of this morbid matter is probably in the nervous system,—it may be in the brain itself. It may owe its origin to a disturbed nutrition, an imperfect secondary assimilation of that organ, and, in its turn, will create additional disturbances in the functions and nutrition of the brain. According to this theory the variety in the nature and severity of the fits depends on the quantity of the poisonous or morbid material, and on the part of the brain which it chiefly or primarily affects. If it affect primarily the hemispheres, and spend itself, as it were, on them alone, you have only the epileptic vertigo. If it affect primarily the region of the quadrigeminal bodies, or if the affection of the hemispheres extend to that region, then you have the epileptic fit fully developed."

With respect to this theory, my colleague, Dr. Brown-Séquard, has remarked:—"That to establish this humeral hypothesis on a solid basis, it would be necessary to show,—1st. That there is always a poison in the blood of all epileptics; 2nd. That this poison gradually accumulates in the blood until its quantity has become considerable enough to produce the phenomena of a fit; 3rd. That during or after a fit the quantity diminishes (because, if it were not so, the fit would continue, or come on again and again after a very short time); 4th. That the nature of the poison varies, so that it acts on the brain proper alone (producing a mere vertigo), or on the other parts of the cerebro-spinal centre alone, or on the whole of this centre at once; 5th. That this poison has quite a different influence on the brain proper and on the other parts of the cerebro-spinal centre, destroying the actions of the former, and increasing excessively the actions of the latter." Not only none of these points have been made out, but no attempt has been made in the way of a demonstration in this respect. And there are many facts which are in direct opposition with the humeral theory of epilepsy. Certainly it is so for all the cases in which a ligature round a limb has prevented a fit; also for the cases in which epilepsy has been cured by section of a nerve, by an amputation, extirpation of a tumour, "a tooth, or a foreign body; expulsion of calculi, of worms, etc." I would refer you for further and complete

(a) Dr. Bennett.

arguments against Dr. Todd's theory to Dr. Brown-Séquard's treatise.

Dr. Marshall Hall placed the seat of epilepsy in the excitable part of the cerebro-spinal axis, and more in the medulla oblongata than elsewhere; and he considers the convulsions are the results of asphyxia produced by the closure of the larynx. But he does not explain how the excitement in the medulla produces loss of consciousness; and there are cases of epilepsy of frequent occurrence without any closure of the glottis. The best, and one which I adopt, inasmuch as it is a good working theory, is that of my colleague, Dr. Brown-Séquard. He first shows by experiments on animals that the brain is not necessary for the production of epileptiform convulsions, neither is the cerebellum, nor even the whole basis of the encephalon except the medulla and pons varolii. He believes epileptic fits are always the result of an excitation of the cerebro-spinal axis.

Both the so-called centric and excentric causes of excitations of epileptic fits act on or through the sensitive or excito-motony side of the cerebro-spinal centres, and consequently both act on the reflex faculty of those centres, so that they both ought to be called reflex excitations.

Epilepsy depends in a great measure on an increased reflex excitability of certain parts of the cerebro-spinal axis.

All muscular and nervous tissues have two distinct properties,—a property of producing actions, and a property of receiving excitations called excitability. One of these properties may be very strong, while the other is very weak. Cold-blooded animals, while the temperature is very low, have an inconsiderable excitability, while their force of contraction is very great. When the temperature is high, on the contrary, the least excitation induces them to contract; but their contraction is without force. Again, if we take an atrophied muscle we find sometimes that it may be excited to contract by a galvanic current too weak to excite contractions in a healthy muscle, while if we apply a strong stimulus to both, we find the healthy muscle contracts with much more force than the atrophied one. The reflex faculty of the cerebro-spinal axis is composed of two elementary vital properties,—one of which we call reflex excitability, the other, reflex force. The cerebro-spinal axis may have a great reflex excitability and very little reflex force, or, on the other hand, great reflex force and very little excitability. In almost, if not in all epileptics the reflex excitability is increased, while the reflex force is rarely above and often below its normal degree. The reflex excitability may not be much increased, and yet be sufficient for the production of the fit when certain excitations exist.

Whilst in epilepsy there is almost always, if not always, an increased reflex excitability alone or together with an increased reflex force, there is also in a great many cases of fits of epilepsy a special kind of excitation acting on the nervous centres. There are, then, three distinct elements for the production of a fit.

1st. Increase of the force of the reflex property.

2nd. Increase of the excitability of this property.

3rd. An increase of a special nature or a violent one.

Of these three elements, the last two are the most frequent, and perhaps the first of these two essential. A slight increase of the reflex excitability is not sufficient usually to cause fits, such an increase without epilepsy often coexists with great weakness, as is the case in old people, in convalescents, and in persons who have lost a great deal of blood. In all these cases reflex movements take place easily under the influence of emotions, fright, or even a sudden noise. Many excitable though healthy persons have reflex spasms in the act of coition; hence the name given to this act by Sennert, —Epilepsia brevis.

We must now, for a few minutes, dwell on the chief symptoms constituting a fit of ordinary epilepsy, and the explanation of them.

Pallor and loss of consciousness.—In most if not in all the fits of epilepsy I have witnessed, there is simultaneously with loss of consciousness pallor of face. It is caused by an irritation of the parts of the nervous centres, from which originate the nerves of the blood-vessels of the brain, and there is a consequent contraction of those blood-vessels. The cervical sympathetic nerve contains the nerve-fibres which go to the iris, the blood-vessels of the brain, and those of the face. The irritation of these nerves causes immediate contraction of the vessels with which they are distributed, and whose functions they govern. The contraction or spasm stops circulation, and the pallor, on the one hand, and loss of function — of consciousness, — on the other, immediately follows.

The cry or scream of epileptics is caused by a spasmodic contraction of the expiratory muscles forcing the air through a contracted glottis.

Tonic contraction of the muscles extending from the face and neck to the trunk and extremities, is the result of the irritation and undue action of the medulla, passing downwards to the spinal cord.

Arrested respiration may be induced by spasmodic closure of the glottis, or spasmodically fixed chest-walls and diaphragm.

Duskiness of face, which succeeds quickly to pallor, may be caused by extension of the spasm to the muscles of the neck, compressing the veins, or to closure of the glottis, or fixation of the chest-walls and diaphragm. Later in the fit it is increased by the circulation of black blood in the arteries.

Dilated pupil is not the result of a paralysed condition of the iris, but the reverse,—the result of an irritated branch of the sympathetic, causing over-action in the horizontal fibres of the iris. The oscillation afterwards is explained by the condition of the circulation in the cord where the sympathetic joins it, or in the tubercular quadrigemina. Black blood circulating in the latter region would cause contraction; in the former, dilation of pupil.

When the first part of the fit is over, it is succeeded by clonic convulsions, which are caused by the circulation of carbonised blood. Venous blood, or blood highly charged with carbonic acid, is a direct excitor of the nervous centres.

Loss of consciousness is not now due to a continuance of spasmodic closure of the cerebral vessels, but to the circulation of black blood in them. The brain is poisoned; the blood being carbonised is incapable of maintaining the cerebral function.

The irregular and violent respiration is due also to the circulation of venous blood in the medulla; so, also, is palpitation of heart; the tissue of the heart is also directly irritated by it. An explanation of the remaining phenomena is hardly necessary.

ORIGINAL COMMUNICATIONS.

EXPERIENCES OF THE

WINTER CLIMATE OF MENTON;

ITS SALUTARY INFLUENCE IN CERTAIN FORMS OF DISEASE.

By P. C. PRICE, F.R.C.S.E.

Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children, at Margate; formerly Assistant-Surgeon to King's College Hospital, etc.

Having spent the past winter at Menton, in the department of the Alpes Maritimes, with considerable benefit to my own health, I am induced to offer the following observations regarding the climatic advantages which this delightful residence in the South of Europe offers to invalids suffering from various forms of disease.

Menton, formerly, and still known to many, by its Italian name Mentone, is a highly picturesque, and very old town lately ceded to France by the reigning Prince of Monaco.

It is situated on the northern shore of the Mediterranean, in latitude 42°, and only a few miles east of Nice, and is, by general consent, admitted to occupy one of the most beautiful sites of the Western Riviera.

On referring to the accompanying engraving, it will be seen that Menton and its environs face almost due South. The entire district, when viewed from the sea, has the appearance of being divided into three distinct portions, the whole being included in a beautiful bay from three to four miles in extent. Each of these three divisions, *i.e.*, the town, an eastern and a western bay, claims a separate but brief notice, as they differ in several particulars, highly interesting and important to health seekers.

Huddled together in close compact on a spur of the Maritime Alps, are a number of ancient-looking houses and other buildings, betokening from their dingy look and irregular construction, the poverty of their original as well as present tenants. These constitute the most ancient portions of the town. At the base of this strange accumulation of dwellings

and narrow streets, run, east and west, more modern additions, forming, what the Mentonese are proud to call, the "new town." In this main thoroughfare are some excellent hotels, *appartements meublés*, and shops. The town, as well as the hill on which it is built, bisects the innermost portion of, what has not inaptly been termed, the Mentonian Amphitheatre. In this way the entire basin is divided into a western and an eastern bay, each, from the position of adjacent mountains, and beds of torrents, enjoying different climatic peculiarities.

The western bay, the outline of which may be traced in the accompanying woodcut, comprises that portion of land which extends from the Cape St. Martin,—the extreme western sea line of Menton,—to the western side of the town, and includes the site of ancient Lumone, and relics of other ages.

Extending from the constantly-washed shore, a semicircle of table-land covered with the luxuriant foliage of the olive, orange, and lemon, becomes at various distances broken by hills of greater or less magnitude; while, further in the background, rise mountains of still nobler proportions, some thousands of feet in height. Here and there these mountains are intersected by highly picturesque valleys, running north and south, and opening on the plain. Through these beauteous valleys flow torrential rivers, some of which are of considerable magnitude, and when swollen by the access of heavy rains, or melted snow, present temporary obstacles to the traffic of the peasants, who live in the hills, and have to bring and carry their merchandise great distances.

Notwithstanding the attractions these beautiful valleys offer to the tourist and botanist, yet to the invalid residing in this quarter of Menton they are sources of occasional inconvenience, as they permit the northerly winds to be sometimes more or less felt. In warm weather, however, they form grand ventilating channels, and prevent the stagnation of the atmosphere when there is little or no sea breeze, and the rays of the sun prove too sultry. Mainly from this cause, as will be presently shown, the temperature of the surrounding atmosphere is generally one or two degrees lower than that of the more sheltered or eastern bay, and, on this account, is not, I believe, so well adapted as the latter, to individuals suffering from pulmonary disease in which there is a tendency hæmorrhage.

The eastern division of the Mentonian basin commences on the eastern side of the hill on which the town is built, and extends to a point called the Cape St. Louis, close to the torrential boundary between France and the kingdom of Italy. The accompanying engraving gives an exeellent view of this beautiful bay, one of the most charming spots which it is possible to select. Completely hemmed in by hills, except on that side which faces the sea, it is well protected from the influence of the north, north-east, and east winds. It has no very extensive valleys dividing its lofty barriers, and its hilly slopes are luxuriantly covered with vegetation. In this quarter of Menton the lemon reaches its perfection, while the olive and orange terraces, which rise in rapid succession, are the gardens of the earliest spring flowers. In one of the choicest localities of this bay I have resided during the past winter, and have fixed on it as a permanent winter residence. This, as well as the sister bay, is well studded with commodious villas for the accommodation of visitors.

Geology.—Having briefly described the face of the three divisional portions of Menton, it remains, before alluding to the meteorology of the district, to say a few words as to its geological characteristics. Too great attention cannot be bestowed on the chief geological features of a tract of country, ere it is recommended as an appropriate locality for invalids, especially those afflicted with pulmonary and other debilitating affections.

The substrata of Menton, and the mountain chain immediately encompassing both bays, may be said, for the most part, to be composed of secondary oolitic or unstratified limestone, containing at some parts no inconsiderable traces of iron. Just to the eastward and westward of the town, ranges of sandstone, more or less coarse in structure, run boldly up to a considerable height. In some localities well-marked glacial drift is found, but the boulders are of no great size. The clay in which these boulders are imbedded, owing to the existence of oolitic and chalk tracts, is of a greyish-yellow colour, and when moistened, forms a tenacious, pasty soil. This, however, is but a very brief outline of the composition of the Mentonian basin. There is, indeed, great scope for geological workings. Each valley is rich in various formations, and ample recreation can be offered to those who take an interest in this seductive science. I may add that the usual limestone and sandstone rocks of the Mentonian amphitheatre, at the eastern and western extremities—at Ventimiglia and Roccabruna—are completely lost and replaced by well-marked and extensive boulder drift. The higher mountains are of limestone, and barren of all vegetation. Their grey and sombre peaks rising nobly towards the clear blue sky, form a pleasant contrast to those of lesser altitude, which are, at all seasons of the year, everywhere covered with foliage of varying hue. This natural and agreeable conformation is of great advantage to those suffering from ophthalmic diseases, and I have failed to notice among the inhabitants of Menton any serious affections of the eye, although the young and aged, from want of animal diet, commonly present that form of chronic mischief of the eyelids which is so frequent among the poor of our own large cities.

Water.—The benefits to be derived from a salubrious climate, are not unfrequently nullified by the unpalatable, if not really pernicious character of the water used for drinking. Fortunately, the waters of Menton are remarkable for their clearness, agreeable taste, and coolness,—qualities which commonly result when the strata with which they are more or less in contact are of the formation mainly characterising the Mentonian basin. As far as my own experience enables me to say, the purity of the water in the different localities is not appreciably influenced by mineral or organic taints. The quantity of lime in many of the springs is considerable,—an advantage which cannot be too highly estimated in the treatment of certain forms of scrofulous and tubercular maladies. In cases in which the excess of lime is disadvantageous, water of modified properties may be obtained from the neighbourhoods in which the sandstone formation predominates. Some residents at Menton prefer drinking rain water, and have had large cisterns connected with their houses, which are allowed to become filled at those periods when the heavier rains take place.

Meteorology.—Long before Menton became a favourite resort for invalids afflicted with tubercular and scrofulous diseases, M. de Bréa, an accomplished and scientific resident, had kept, with great care, a meteorological register, from which it appears that during ten years—from 1851 to 1860 inclusive—the average number of rainy days in each year amounted to 80.(a)

During the past year (1861), from January 1 to December 31, according to Dr. Farina, a well-known Italian Physician resident at Menton, the wet days amounted to only 47; but this period is universally admitted to have been an unusually dry one. According to M. Teissiere, the average number of rainy days at Nice, during several years, have amounted to 74, although M. Robaudi, the author of a well-known work on "Nice et ses Environs," published in 1843, states that the number of rainy days amounts to only 60. This great difference between the results obtained by these two observers is easily to be accounted for, as, unquestionably, more rain has fallen during the past ten years—1861 excepted—than during the ten preceding ones.

The following statistical table, among others to be presently noticed, was kindly drawn up for me by my friend Dr. Siordet (now practising at Menton) from his own observations, and shows the number of days during which it rained, little or much, from October, 1861, to the end of April, 1862. The past winter was noted for its unusual number of rainy days.

	October, 1861.	November.(b)	December.	January, 1862.	February.	March.	April.	Total.
Rainy days when the sun shone during some hours	2	3	2	4	5	3	5	24
Rainy days entirely cloudy	5	4	2	7	3	10	2	33
								57

As far as I am aware, no extensive observations have been recorded as to the total amount of rain-fall at Menton during any number of years. At Nice, only a few miles to the west,

(a) It must be remarked, however, that under the denomination of "rainy days" are included those days in which even the smallest quantity of rain fell.

(b) The observations of twenty-one days only in November are here recorded.

the annual amount, according to Robaudi, is twenty-five inches, and M. Seve states that the same quantity falls at Cannes, where, during six years, the average number of rainy days amounted to only 52. I hope, however, during succeeding years, to be able to pay some attention to the actual amount of rain falling, during the winter months, at Menton.

Although the quantity of rain falling in a temperate climate may equal, or even exceed that descending in localities of somewhat opposite characters, yet the state of surrounding vegetation and other climatic specialties, greatly depend on the manner in which the rain-fall takes place. It is but seldom that one meets with a showery day at Menton: it is more usual for the rain to descend during an entire day, or night, or even for a still more prolonged period. The amount of water thus discharged on the earth is sometimes considerable, but as soon, however, as the rain ceases, the clouds disperse, and the glorious sun reappears, the invalid forgets that the weather has been so unpropitious, for, within a few hours, he is enabled to resume his accustomed exercise with comfort and additional zest. The rain, falling in the way I have described, thoroughly impregnates the earth, and although no appreciable humidity, beyond the night dews, may affect the ground for many weeks, still the subsoil remains moist for a considerable period.

It is supposed by many that on this shore of the Mediterranean, cloudy days are rare, and that a brilliant sun is always to be found shining in the blue heavens. Such, however, is not the case; at least, not during the winter months at Menton, and the invalid must be prepared for cloudy as well as fine weather. But though the usually blue sky may be occasionally obscured by clouds, looking, perhaps, a shade too dismal at times, yet, as a rule, the benefit of a bright and beautiful southern climate will be enjoyed. According to M. de Bréa, the annual number of cloudy days—days in which no sun appeared—during ten years, was only twenty-five; and during the same period the annual number of partially cloudy days amounted to something under sixty.

Dr. Farina, in his "Tableaux Synoptiques des Observations Météorologiques," gives the following results of the state of the weather during 1861:—

Fine days	206
Cloudy and sunshiny days	75
Cloudy days	37
Rainy days	47
	365

The following table, by Dr. Siordet, shows, at a glance, the number of cloudy, sunny, etc., days which have occurred during the period at which invalids remained at Menton during the past year:—

Number of Days.	October, 1861.	November.(c)	December.	January, 1862.	February.	March.	April.	Total.
When the sun shone in a cloudless sky	20	9	15	8	8	8	7	75
When the sun shone with clouds	4	5	9	10	7	9	12	56
Which were entirely cloudy, without rain	—	—	3	2	5	1	4	15
When it rained little or much	7		4	11	8	13	7	57
								203

From these observations some general idea may be formed of the usual condition of the weather at Menton.

Ere the invalid determine on a winter residence, one of his first questions naturally is,—Is such and such a locality free from mists and fogs? If Menton be selected, I can promise that he will not be inconvenienced by the latter, and scarcely, if at all, by the former. I never saw a fog during the past winter at Menton, and I am told by those who have resided there for years that such never occur.(d)

Although at Menton the winds chiefly blow from a northerly and westerly direction, the air is, generally speaking, dry, warm, and often bracing. Remembering, in addition, that the sun in winter is very frequently shining with great brilliancy and power, and that the capacity of the atmosphere for moisture increases with its temperature, the surrounding air is, as a rule, capable of holding in solution during the day all the humidity it may acquire. I am unacquainted with the average amount of aqueous vapour which the air circulating at Menton ordinarily contains, at various periods of the day; but the absence of mists and fogs shows that, in the daytime, the quantity is by no means great, and, certainly, seldom amounts to saturation.

When rain has fallen in any quantity during the night, it is not unusual, especially in the early part of the succeeding day, to see misty clouds clinging to the hills, at some hundreds of feet above the sea level; indeed, the condensation of rarified aqueous vapour by the diminished temperature of the high surrounding mountains, gives to the inexperienced the impression that the lower and inhabited portion of Menton must be frequently damp, but a few weeks' residence soon dispels the illusion.

Temperature.—The invalid reader (especially if in search of a winter residence) of any observations relating to the climatology of a district, is generally most attracted by those remarks which, by the aid of a few figures, give an immediate insight into the general temperature of the atmosphere, etc. Medical climatologists have therefore, as a rule, directed close attention to the daily variations of the thermometer. M. de Bréa, during ten years, from 1851 to 1860, has carefully noted the temperatures of each day, and finds that the annual mean is 60·8, while the following are his results for the undermentioned months:—October, 64°; November, 54°; December, 49°; January, 48°·2; February, 48°·5; March, 52°; April, 57°·2. (These observations were made at 6 a.m., 2 and 10 p.m.) Dr. Bennet's published statistics of the temperatures registered during the winters 1859-60 and 1860-61 give results somewhat different; but I must refer the reader, for further information on this point, to the interesting work on "Mentone and the Riviera as a Winter Climate."

To my friend, Dr. Siordet, I am much indebted for the following observations, which exhibit the mean temperatures during the winter months of the last season at Menton:—

Mean Temperatures.

	Mean daily minimum temperature. Deg.	Mean daily maximum temperature. Deg.	Mean daily range. Deg.
October, 1861	61·6	69·7	8·1
21 days of November	52·4	60	7·6
December	47·8	55·5	7·8
January, 1862	44·6	52·7	8·1
February	46·6	55·6	9·1
March	50·6	60·6	10·1
April	55·5	68·2	12·7 (e)

The thermometrical indications noted in the above table and observations, give a very fair idea of the atmospheric temperatures which are usually to be experienced at Menton during the colder months; but it must be borne in mind, as stated in the foot-note, that the above registrations were read from a thermometer placed in a position deprived of the sun's rays, and therefore indicate the lowest possible range of temperature. The comparatively slight, and, at most times, gradual variation in the mean daily range of temperature is a feature, in the results I have quoted, well worthy of attention.

Winds.—The accompanying engraving shows how Menton and its environs are so hedged in by lofty hills and mountains, as to be generally well screened from the biting influences of the north, north-east, and north-west winds. During the past winter I have had no certain mean of registering the daily action and force of the winds, but, according to Dr. Farina, during the latter months of 1861, northerly and westerly winds seem to have prevailed. Whenever the north, north-east, or east winds blew, the eastern bay, and especially the quarter in which I reside, in a great measure escaped their searching effects. The north wind, by reason of the high surrounding mountains, is prevented expending itself on Menton, and is, therefore, as it were, thrown out to sea, causing a troubling of the distant waters, while a complete calm may

(c) The observations of twenty-one days only in November are here recorded.

(d) At Nice, I believe, during a long period no fogs have been observed. Dr. Edwin Lee, in his interesting little book on "Nice and its Climate," states, on the authority of M. Teissiere, that during several years only two hazy and four foggy days were noticed.

(e) The thermometer used was constructed by Pillischer, of New Bond-street. It was placed outside a north window of a house situated some little distance above the level of the sea, near to the mountain side, in the eastern bay. The minima temperatures are consequently rather higher than those of other observers residing nearer to the sea, and almost on a level with it.

reign in the bays. Robaudi, I think, mentions the same fact regarding the action of this wind at Nice. The north-west wind, or mistral, the dread of the inhabitants on the northern shore of the Mediterranean, is not keenly felt, indeed, many parts are completely sheltered from its influence. The south-east, or sirocco wind, when blowing hard, is not pleasant; but it very seldom occurs, and is by no means accompanied with those ill effects which render it so in urious in Algeria and other parts.

(To be continued.)

ON "RENNET WINE."

By GEORGE ELLIS, M.B.
Fellow of the Royal College of Surgeons of Ireland.

That a supply of good gastric juice to the stomach, after its reception of food, is indispensable for healthy gastric digestion, is a truth that needs no comment. Defect in quality of this fluid I believe to be one of the most frequent starting-points, often overlooked as such, of many diseases which surely, though, it may be, slowly, undermine the constitution and shorten life. The immediate effects, however, of unhealthiness in this secretion, acid eructations, gastralgia, thirst, foul tongue, headache, and nausea, are among the commonest affections treated by Medical men in themselves and others; and the consciousness of the want of some substitute or corrective better than any our Pharmacopœia can offer, has led to a very extensive trial of a costly preparation, which is still prescribed pretty largely under the name of Pepsine. Of this substance I can only say that, having tried it more than once, I have failed to detect its utility. It will not coagulate milk, and as to any digestive action on animal substances, it appears to me to be perfectly inert.

About two years since, failing to obtain any benefit from this new remedy, I had recourse to the direct preparation of a solution of gastric juice from the calf's stomach; and so gratifying has been the result, so satisfactory and remarkable its effects as a remedy in gastric derangements, that I wish to communicate to the Profession the mode of preparation which I have found the most convenient and the best for every purpose.

Take the stomach of a calf fresh from the butcher; cut off about three or four inches of the upper or cardiac extremity, which, containing few glandular follicles, may be thrown away. Slit up the stomach longitudinally; wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible. Then cut it into small pieces (the smaller the better), and put all into a common wine bottle. Fill up the bottle with good sherry, and let it remain corked for three weeks; at the end of this time it is fit for use.

Dose.—One teaspoonful in a wineglassful of water immediately after meals.

Test of Quality.—One teaspoonful will solidify, to the consistency of blancmange, in from one to two minutes, a cup of milk (say eight to ten ounces) at the temperature of 100° Fahr. In this action on the caseine of the milk it may be said that the wine alone would have some effect, but wine will not solidify milk, nor will it curdle it at all except at a much higher temperature and in much larger proportion than the above.

This preparation, which I propose to call "Rennet Wine," has many advantages over the watery infusion of rennet which is obtained from the salted and dried calf's stomach (used largely in cheese making). The latter is also a good preparation, solidifying milk in the same way while it remains fresh; but it is much more troublesome in the making, and in warm weather it soon begins to react on the animal matters contained in it, and becomes spoiled. For these reasons it cannot conveniently be used in Medical practice. Rennet wine, on the contrary, is so easily made, requiring no salting or drying of the stomach, is so inexpensive, and can so readily be prescribed in private and in Hospital practice, that I have little doubt, when known, it will become one of the most valued remedial articles in the hands of the Profession.

I recommend the employment of good sherry, because this wine has sufficient body to keep the infusion perfectly sound for any length of time, and is not so strong in alcohol as to suffer any apparent loss of solvent power in taking up the active principle of the rennet.

To the physiologist it is unnecessary to say that this remedy should be given after or during, not before, meals. A single dose given daily after dinner I have found quite sufficient in the general run of cases requiring it. How this small quantity can act so speedily and effectively it is not perhaps easy to explain, when we consider the large supply of the gastric secretion necessary for the thorough digestion of an ordinary meal. The action is probably due to those indirect chemical changes, called catalytic transformations, which some organic substances, by their mere presence and contact, induce in each other and in other proximate principles; and thus, perhaps, the conversion of a small portion of food into healthy albuminose by this small quantity of sound gastric juice may induce the same healthy action throughout the stomach contents during the entire process of stomach digestion. It is at least equally difficult to explain the action and rapid extension of ferments, generally, in their appropriate solutions.

I have often been forcibly struck by the magical effect of this small dose in removing offensive odour from the breath of young persons,—a distressing symptom, sometimes aggravated rather than relieved by purgative medicine; and I may also mention that in one of these cases cod-liver oil was easily tolerated afterwards, though never before. It would be a mistake, however, to suppose that the oil is at all acted on by the gastric fluid. The oil globules of coagulated milk are seen, under the microscope, unchanged, though imbedded in the solidified caseine; and the digestion of oil, taking place only after passing the orifices of the pancreatic and biliary ducts, is entirely intestinal; but intestinal digestion itself must surely be influenced essentially by the healthy preparatory action of the stomach secretion on the albuminous compounds presented to it, and thus the digestion of oils and fatty matters, though not even commenced in the stomach, may be facilitated by their being mingled with the products of healthy gastric action, when submitted to the succeeding operations of the pancreas and liver.

But it is unnecessary at present to theorise further on this subject. My object is to bring into Medical use, and have subjected to the test of larger experience, a preparation which, in my limited sphere, I have found extremely serviceable; and as I believe there is no class in society more liable to suffer from gastric disturbance than hard-worked members of the Medical Profession, through worry of mind and body, with irregular hours for meals and sleep, I would earnestly suggest their, at least, experimental adoption of a remedy at once so simple, so little costly, and, which is no trifling recommendation, so perfectly innocuous.

91, Leeson-street, Dublin.

CASE OF EMBOLISM

IN WHICH A VENOUS CAST, TWENTY INCHES LONG, WAS FOUND IN THE RIGHT VENTRICLE.

By ROBERT DRUITT, M.R.C.P. Lond., etc.

The readers of the *Medical Times and Gazette* of the present year will be fully prepared to acknowledge the importance of the set of phenomena which are known by the term *embolism*. I venture, therefore, to contribute the particulars of one case which I have lately met with, and in which the symptoms were well marked during life, and confirmed by a post-mortem examination.

Monsieur D., aged 42, sent for me on June 28, 1862. He was a Provençal, had been *cuisinier en chef* to an Irish nobleman, and had spent the greater part of the last five years in Ireland. He had been suffering from severe and incessant catarrh and pains in the head, which he ascribed to the dampness of the climate, and now for the last three or four days had been troubled with pains in the knees which compelled him to keep his bed.

The skin was hot and dry; the tongue furred and dry (great thirst); the whole person extremely fat and unwieldy; abdomen very large and tight; urine intensely acid and depositing abundant red sediment; some swelling, patchy redness and tenderness of both knees, and slight pain in the elbows. Pulse 90, full. No trace of pain in the chest, difficulty of breathing, nor yet of morbid sound of the heart.

On the 29th he had passed a restless night; both ankles and wrists were much swollen, very tender and painful, and red in patches. He complained much of the lower part of the back, which, on examination, showed considerable

excoriation between the fold of the buttocks, and a small slough on the edge.

From this day to July 6 he slowly improved. He was treated with sufficient nightly doses of morphia and conium to ensure rest. He took abundance of nourishment, as had been his wont: for example, breakfast of tea and egg; first-rate beef-tea at eleven; broiled chicken or sole for dinner at two; beef-tea at five, and arrowroot at night; and weak cold brandy and water for drink. He was a patient whom most of us would have considered it perilous to starve. He had abundant perspirations at night; and the urine became less loaded, and the abdomen less tense, under the influence of gentle doses of purgatives with calomel.

On Sunday, July 6, I found him sitting in an easy chair; he had passed a good night; no headache; tongue clean and red, and inclined to be dry and aphthous; skin moist; pulse soft; and appetite good; but there was some œdema of both hands and feet, extending in slight degree up to the knees, and the feet, as they hung down, were bluish and cold. The urine was very copious, and presented the slightest possible trace of albumen; but there was not the slightest difficulty of respiration or other symptom indicative of mischief in the chest. A languid circulation and debility were the leading features.

On the 7th and 8th he continued to improve slowly, so far as the rheumatic symptoms were concerned, and was able to walk a few steps with very slight support.

On the 9th I was sent for at 3 p.m., in great haste, and learned that whilst lying at the edge of the bed, he had slipped off it, and fallen on the floor in a kind of sudden fainting fit, with something like convulsions. I reached him in about ten minutes after this, and could see at a glance that he was a dying man. His breathing was hurried and anxious; the pulse rapid and scarcely perceptible; the features intensely pale, bluish, and distressed; the whole surface of the body very cold, and not merely damp but wet with perspiration which soaked his linen. The feet, hands, and scrotum livid. The senses were perfect. He said he had no pain anywhere; but that he felt greatly agitated and feeble, and begged for something *calmant*. The ear applied to the front of the chest heard air enter audibly into the air-cells; the beating of the heart was confused and very feeble. The œdema had almost entirely disappeared from the hands and feet.

Brandy was administered freely by the mouth and by enema; mustard poultices to the epigastrium, and hot bottles to the feet. Nothing, however, gave any relief. The patient was extremely restless, and spite of my cautions not to raise himself, insisted on sitting on the bed-pan several times, trying to pass a motion. He also said he wished to be sick. At last, about six p.m., or three hours after the seizure, the breathing became visibly worse; there were several intense and ineffective efforts at expiration, and after one or two gasps, all was over.

The diagnosis which I ventured to give to the friends of the patient was that the pulmonary artery was obstructed by some clot or other substance, and I urged the necessity of a post-mortem. Permission was granted, and the operation was performed, fourteen hours after death, by my friend Dr. Peregrine, in presence of Dr. Robert Dickson, who had seen the patient with me during his last moments, and myself.

The body was fat, and abdomen very large. When the chest was opened, the lungs did not collapse. The thoracic cavity was greatly abridged (as the body lay) by the upward protrusion of the abdominal viscera; for the liver reached as high as between the fourth and fifth ribs on the left side, and the third and fourth on the right. No fluid in either pleura, but the left extensively bound by old, firm adhesions. The pericardium contained a considerable quantity of clear serum. The heart rather large, not very fat, pale yellowish, not distended, and with an entire absence of redness, roughening, or other sign of inflammation. The posterior parts of both lungs gorged with black fluid blood; the whole lungs somewhat œdematous. The right auricle contained a contorted mass of fibrine, which was traced into the right ventricle, where it had somewhat the look of chickens' intestines. Portions of fibrinous clot were traced into the right and left pulmonary artery, and into their primary branches. The left auricle and ventricle empty. The valves and entire lining membrane absolutely smooth and healthy. The muscular structure yellowish and a little soft. The liver was large, and presented great abundance of the yellow circumferential portion of the lobules. The kidneys intensely congested. The examination (which was made in the presence of three friends of the deceased) did not proceed beyond this point.

Further Examination of the Clot.—This examination convinced my colleagues and myself, as I hope my description will convince my readers, that the clot consisted of two distinct elements. (1.) An older element, consisting of firm pale tubular casts of veins, which had been brought up to, and had passed into the right auricle and right ventricle. (2.) A newer element, consisting of fibrine, fresh, loose, and irregular, which had been deposited upon the older clot after it had reached the heart.

The first piece of clot that I examine, and describe as I examine, is a cylindrical mass, exactly seventeen inches long. At its upper or larger extremity, which is rounded, is a portion an inch and a-half in length, of firm, dark clot, a little flattened, and half an inch in its larger diameter; next to this is a little constriction, and a short branch at an angle; next to that comes a portion six inches long, about one-third of an inch in diameter, tolerably even, and somewhat tapering, consisting of a firm white fibrinous exterior, and of darker firm clot within. It shows two oval marks, which look as if they corresponded to the apertures of branches of veins. After the six inches, a little branch is given off, the size of a crow-quill, and one and a-half inch long. Then follow eight and a-half inches more of firmer and more decolorised fibrinous cast, of gradually decreasing size; the outer layers in some places easily detached, and showing darker clot within; and, at the end, an inch and a-half of thin irregular clot. This long portion of clot lay partly in the auricle, partly in the ventricle; and it was, as I have said, coiled up, and looked like chickens' guts.

A second mass, lying before me, was taken from the apex of the right ventricle. It is a mass of soft irregular fibrine, like that which is often found in the heart; but it contains imbedded in it two portions of tubular clot, one an inch and a-half, the other two inches long, which were evidently, in removing it, broken from the longer portion already described, and once were continuous with it. These lie imbedded in the looser recent clot, but evidently form no part of it, and are distinct from it in configuration, colour, and consistence. They are as tubular as, and about the size of macaroni, and these portions are the palest and firmest of the whole clot.

A third portion is about two inches long, the size of a small quill, and consists partly of firm clot, and partly of looser fibrinous deposit outside it.

The right and left pulmonary artery, and their leading branches, contained also fibrinous plugs, but so loose, soft, and friable, that they readily tore, and could not be removed entire nor preserved: whereas the cylindrical portions described above are pretty nearly as tough as the chickens' guts, to which I have compared them.

Remarks.—The examination of these clots, taken side by side with the symptoms of the poor patient's mortal agony, leaves no doubt in my own mind as to the pathology of the case. It is clear that in the chief veins of one thigh there had been a fibrinous deposit on the lining membrane, at first limited and allowing the blood to pass easily, then gradually creeping upwards and obstructing the canal, till at last a length of twenty inches (most likely from the popliteal to the external iliac vein) became filled with a solid plug. Of this plug it was evident that the uppermost and larger portion was the newest, least firm, and least decolorised, and it ended above in a smooth round ending, as has been well described by Dr. Benjamin Ball in his *Traité des Embolies Pulmonaires*. The œdema of both legs which existed on the 6th, 7th, and 8th has been mentioned, and its disappearance on the 9th; but it must be observed that the patient complained of no pain in either thigh; there was no *phlegmasia dolens*, and nothing to call special attention to the veins. It is to be regretted that the post-mortem could not be extended so as to clear up the question as to the original site of the clot; nevertheless, as it lies there before me, it is clear that such a coagulum could not have been formed in the heart, and that it must have been transported from some part of the venous system.

In the next place, I would desire attention to the fact of the formation of fibrinous coagulum within the heart and pulmonary artery, in addition to that which was brought there and as a consequence of it. Disputes have existed, as is well known, as to the origin of pulmonary and right ventricle *emboli*, some contending that they are autochthonous or

formed *in situ*, whilst others have proved their transplantation. This case clearly proves both opinions to be correct, and I think that many an observer, misled by a mass of recent fibrine, may have overlooked an older venous cast imbedded in it.

The symptoms admit of as positive a diagnosis as possible. A patient is seized suddenly with symptoms of intense disturbance and feebleness of the heart. Respiration is difficult and laborious, yet air enters the lungs freely. The beat of the heart has lost rhythm and force, and is no more than a feeble *wobble*. The surface is intensely cold, pale, and bluish, and drenched in perspiration. There is death in the face, but the intellect is undisturbed. All these symptoms point to a sudden mechanical interference with the circulation; and of the sources of such interference embolism is the most probable.

The knowledge of this pathological process enables us to get rid at once of some of the mythical and purely dynamic theories of sudden death with which our fathers were obliged to be content. Formerly this case would have been chronicled as one of sudden retrocession of gout or of rheumatism, or of gout in the stomach, or palsy of the heart, or sudden inflammation of that organ. Now, at least, some cases are shown to depend on mechanical and intelligible conditions.

Such cases are by no means rare. This is the second I have seen this year. In the former, an elderly woman, phthisical and with swelled leg, was seized with all the symptoms above described, and died in six hours. I pronounced the cause to have been what I am now treating of, but was not allowed to prove it by a post-mortem. The moral is, that in no case of swelled legs or sub-inflammatory condition of the veins should the possibility of this mortal accident be overlooked.

37, Hertford-street, London, W.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

EDINBURGH ROYAL INFIRMARY.

CASES OF SCARLATINA TREATED BY MEANS OF THE COLD WET SHEET OR COLD AFFUSIONS.

(Under the care of Professor LAYCOCK.)

[Reported by Mr. RICHARD DAVEY.]

THE cold affusion is practised by pouring cold water over the patient when seated naked in a tub. When the cold wet sheet is used, the patient is wrapped up in it, and water given to drink.

Case 1.—Mary W., aged 18, a domestic servant, was admitted into the Clinical Ward No. XI., on December 20, 1861. The patient had usually had good health, with the exception of occasional cough within the last few days. She went to bed on Wednesday evening, December 18, feeling quite well.

Thursday, 19th (1st day of the fever).—At 2 a.m. she awoke and complained of a sore-throat, and had continued shiverings. She lay restless until the morning, and was unable to rise at the usual hour on account of pain in the back, severe sickness, and headache. During the day she vomited frequently. In the evening she was seen by a Medical man, who recommended a mustard poultice to the throat, and a diaphoretic powder. She continued awake during the night, and complained of general *malaise*.

20th (2nd day of fever).—This morning she felt extremely hot and feverish, and entered the Infirmary during the forenoon.

Examination on Admission.—It was ascertained that the children in the next house to her own were labouring under scarlatina; the probability of contagion was accordingly admitted.

Circulatory System.—Cardiac sounds natural. Pulse 120, full and bounding.

Respiratory System.—Slight dulness at the base of both lungs posteriorly; respiration harsh, and vocal resonance somewhat increased.

Digestive System.—Tongue covered with brown fur in the centre; tip and edges very red, with the papillæ slightly projecting. Throat very red, and fauces congested; deglutition much impaired. Complete anorexia and urgent thirst. The vomiting has ceased. Bowels regular.

Genito-Urinary System.—Urine, sp. gr. 1023, somewhat high coloured, with a copious mucous deposit; slightly albuminous. Menstruation regular.

Integumentary System.—Skin dry and harsh, somewhat red, but no papular eruption.

Nervous System.—Frontal cephalalgia; pains in her back and limbs; during the night she is extremely restless.

Vesperè.—Her fauces were sponged with a solution of nitrate of silver, and two tablespoonfuls of the following mixture were to be taken every three hours:—℞. Aq. ammon. acetat. ʒij., vini. antimonii ʒij., spt. ætheris nit. ʒss., mist. camphoræ ad. fʒviij.

21st (3rd day of the fever).—Throat very sore; slept very little; pulse 120; in other respects much the same. Professor Laycock ordered her,—1. To be dry cupped freely over the loins; 2. To be wrapped completely in a cold wet sheet; 3. To gargle her fauces frequently with the following gargle:—℞. Potassæ chloratis ʒj., tinct. ferri sesquichloride ʒiij., mist. camphoræ ʒvijss. M.; 4. To take the following mixture, modified from the preceding:—℞. Vini antimonialis ʒiij., spt. ætheris nit. ʒss., mist. camphoræ ad. ʒviij. ʒj. every three hours.

22nd (4th day of the fever).—She expresses herself as greatly relieved by the cold sheet, which was applied twice yesterday for three hours at each time. Pulse 116. The eruption has appeared on both arms, over which it is spread continuously. Her restless nights still continue.

23rd (4th day of the fever).—Patient feels much better. Pulse 96. Her face is congested, and conjunctivæ suffused. Her throat is very much better, and she can now swallow nutrient fluids with ease. The albuminuria has diminished. The wet sheet was again applied with great benefit; she subsequently fell into a state of profuse perspiration. During this evening she continued very restless, and wandered occasionally.

24th (6th day of the fever).—In the early part of the morning she enjoyed a most refreshing sleep; she feels very much better; pulse 96. She complains of her sight being dim. Urine not albuminous, sp. gr. 1024; copious mucous deposit.

29th (11th day of the fever).—She is rapidly convalescing; the eruption is fading away, and desquamation is established. She has a depressed expression, and slight thickness of speech. No albumen in the urine.

January 1, 1862 (13th day of the fever.)—Copious deposit of urates in the urine, sp. gr. 1024.

6th.—Convalescing most satisfactorily. She is anxious to leave her bed. Urine continues to deposit urates.

10th (20th day of the fever).—She was allowed to sit up to-day for two hours.

17th (27th day).—She was dismissed quite well.

Case 2.—*Scarlatina with Diphtheria.*—Janet L., aged 22, single, a housemaid, was admitted, on December 21, 1861, into the Clinical Ward.

Her general health has been very good; she went to bed on December 20 in her usual health.

December 21, 1861 (1st day of the fever).—On awaking this morning she complained of an acute pain in her throat, general pain and soreness throughout her trunk and extremities, and an extreme feeling of langour and inaptitude for exertion. During this day she vomited some acrid watery matters. She was restless during the night.

22nd (2nd day of the fever).—This morning her master (who is an Edinburgh Physician) noticed the rose-rash of scarlatina on her breast and arms, and accordingly she was sent for admission into the Royal Infirmary about noon. She is not aware of having been exposed to any infection of scarlatina.

On Admission.—Vesperè.—The rose-rash is especially well marked on her face, neck, and arms; slightly so over the trunk; skin is pungently hot; pulse 126, full and bounding. Her features are expressive of great langour and physical weakness; eyes are suffused and watery; dark areola beneath eyelids. She complains of severe sore-throat and dysphagia;

tonsils and soft palate injected, and a small elongated grey slough plainly seen on the left arch of the palate. Urine, sp. gr. 1023, slightly albuminous. The solution of nitrate of silver was applied to the throat and upper part of the fauces.

23rd (3rd day of the fever.—Slept very little last night; her throat was very painful. Well-marked eruption on her extremities, and great heat of the skin. Bowels freely moved. Dr. Laycock ordered the cold wet sheet to be applied immediately, and repeated at night if the skin should continue very hot. To use the following gargle: ℞. Tinct. ferri muriat. ʒij., potass. chloratis., ʒi., mist. camphoræ ad. fʒviij. M. The gargle to be used frequently. The nurse applied the wet sheet immediately after the visit.

Vesperè, 12 *o'clock*.—Skin still very hot; pulse 126. The wet sheet was again applied.

24th (4th day of the fever).—The patient feels better, and slept soundly after the removal of the wet sheet. Her pulse is still very weak, 116 per minute. She expectorates many ounces of a yellowish-brown mucus every day, which on histological examination shows numerous mucous corpuscles, epithelial scales, and irregular stellate crystals of phosphate of lime. Beef-tea Ojss. per diem; two tablespoonfuls of wine every two hours.

25th (5th day of the fever).—Large masses of slough separating from the fauces; considerable swelling at the right angle of the jaw, associated with pain and redness. Teeth covered with sordes.

26th (6th day of the fever).—Albumen disappeared from the urine; pulse 110.

27th (7th day of the fever).—She feels cheerful and well to-day. Tongue moist; sordes disappearing from her teeth; sloughs separating from throat.

During the succeeding week the abscess at the right angle of the jaw maturated; the sloughs from the fauces separated, and the presence of lithates was noticed in her urine.

January 7, 1862 (17th day of the fever).—The abscess pointed to-day midway over the course of the sterno-mastoid muscle; it was opened, and ʒss. of laudable pus escaped. Linseed poultices were applied over the sac of the abscess. Her symptomatic fever diminished, and she felt wonderfully relieved.

9th (19th day of the fever).—Desquamation fairly commenced; she gradually recovered, and was dismissed quite well on January 24.

Case 3. — Ann McL., aged 17, a housemaid, was admitted into the Clinical Ward No. XI., on May 7, 1862.

Monday, May 5 (1st day of the fever).—During the day she had been unusually busy, and in the evening felt feverish, complained of shivering and sore-throat, and was incapable of continuing her work.

6th (2nd day of the fever).—She felt herself quite incompetent to discharge her duties, from a sense of languor and disinclination; during the evening the scarlatinal rose-rash developed itself on her chest.

7th (3rd day of the fever).—The rose-rash extended from her chest to her face and arms; she was seen by an Edinburgh Physician, who recommended her for admission into the Infirmary; she entered the Hospital accordingly at twelve o'clock, mid-day.

On Admission.—Circulatory System.—Cardiac sounds natural. Pulse 120 per minute.

Respiratory System.—Respiration is hurried, and inspiration is accompanied with stertor. She expectorates many ounces per diem of a frothy mucus.

Digestive System.—Tongue dry in the centre, very red at margin and tip. She complains of dysphagia. On pharyngeal examination the uvula and tonsils were seen to be swollen and congested, the right one slightly ulcerated, and patches of altered secretion adherent to it. She suffers from intense thirst, appetite quite lost. No abdominal tenderness. Bowels confined.

Integumentary System.—The skin presented a bright scarlet appearance over the face, arms, and upper part of her body; it had a rough, harsh, and pungent feel, from the presence of innumerable small papules. The temperature in the axillæ was 104° Fahr. Her forehead was bedewed with perspiration.

Genito-Urinary System. — Menstruation quite regular. Urine is high-coloured and cloudy, sp. gr. 1018; chlorides are apparently diminished. No albumen.

Nervous System.—Frontal cephalalgia and restless nights are complained of; otherwise natural.

Treatment.—She was ordered two tablespoonfuls of the following mixture twice or three times a-day:—Liq. ammon. acetat. ʒvi., mist. camphoræ, ʒxii. M. To have the cold affusion twice a-day, and afterwards to be wrapped in a cold wet sheet for about twenty minutes. The throat to be gargled with port wine freely.

8th (4th day of the fever).—She feels much better; her headache has completely disappeared. The rash has come out freely on her legs. The cold affusion afforded her great relief, and she asks for its more frequent repetition. Urine is loaded with lithates, but no albumen. Temperature in axillæ 98° Fahr. Pulse 120.

10th (6th day of the fever).—Rash is fading, and desquamation commencing on her face. Throat is very much better. Temperature of her skin 98°. No albumen.

14th (10th day of the fever).—The nurse tells the clerk that every morning and evening up till this date since the patient's admission, she has freely applied the cold affusion and wet sheet; that great relief has been uniformly afforded to the patient, without any unpleasant consequences. The patient, after the removal of the cold sheet, was carefully rubbed dry, and warm bottles applied to the trunk and feet. The temperature of the skin was lowered many degrees after the bath, but always resumed its previous standard in about an hour subsequently.

21st (17th day of the fever).—Rapidly convalescing. She remains in the Infirmary for the benefits of rest and good diet.

ST. BARTHOLOMEW'S HOSPITAL.

RUPTURE OF THE LUNG, WITHOUT EXTERNAL INJURY, PRODUCED BY A FALL.

(Under the care of Mr. SKEY.)

[Reported by Mr. FREDERICK MARSH, House-Surgeon.]

HENRY M., a strong, healthy man, 25 years of age, while in the act of leaving an omnibus, on January 8, fell, striking the ribs, just below the angle of the left scapula, against the step. He felt a good deal of pain, and thinking he had broken a rib, went home in a cab. During the night pain and difficulty of breathing increased, and he came to the Hospital the next morning. When admitted he was in great pain, and breathed as if suffering from acute pleurisy. On examination no signs of external injury could be detected, and no fractured rib was found; but there was dulness on percussion over the base of the left lung behind, and a friction sound was heard about an inch below the angle of the left scapula, breathing elsewhere being natural. He had expectorated very little in the night, and there had been no hæmoptysis.

Mr. Skey, who saw him soon after his admission, ordered eight ounces of blood to be removed by cupping over the seat of pain, and a flannel bandage to be applied to the chest.

January 10.—Has had a restless night, and is still in a good deal of pain; skin hot and dry; pulse 120; respirations 28 in a minute; scarcely any expectoration. The dulness at the base of the left lung has extended slightly, and crepitation is heard below the angle of left scapula.

11th.—Has had a bad night; pulse 130 per minute, and of small volume and feeble; respirations 30; cough troublesome; has expectorated some rust-coloured tenacious sputa during the night.

12th.—Is getting gradually worse; pulse is feebler, and respiration more rapid than yesterday. There has been scarcely any expectoration since yesterday. No auscultation was made to-day, as moving distresses him a good deal.

14th.—Is much weaker since the last note; pulse 135, very feeble; respirations 35; skin cold and clammy. The apex of the heart is found pulsating in the epigastrium. Percussion loud and boxy at the upper part of the left side of the chest; quite dull in the lower half. Amphoric breathing distinctly heard above the angle of the scapula; below that point nothing.

15th.—He passed a very bad night, and was this morning evidently in a dying state. Although suffering considerable dyspnœa from the amount of fluid and air in the left side of the chest, Mr. Savory and Mr. Wood agreed that an operation for letting out the air would be useless, as he was in so exhausted a condition that it would be impossible to prolong life. He died this afternoon.

Post-mortem, Eight Hours after Death.—On opening the

chest a large quantity of fetid gas escaped from the left pleural cavity. The apposed surfaces of the pleura were covered throughout the greater part of its extent by a thick layer of recent lymph. About a pint of fetid puriform fluid, containing apparently very little blood, was found at the lower part of the pleural cavity. The lung was emptied of air, and packed closely along the side of the spine. On removing it a circular opening, about an eighth of an inch across, was seen on its surface, at a spot corresponding with the sixth or seventh rib, about an inch in front of the angle. This opening led into a cavity immediately below the surface, large enough to contain about two drachms of fluid, with irregular walls, to which were attached shreds of broken-down lung tissue. The ribs were not injured, and there were no marks of violence external to them. Water was forced down the trachea, and the lung expanded fully. With the exception of a little emphysema the rest of the lung structure was healthy.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASE OF RETINITIS IN A PATIENT AFFECTED WITH KIDNEY DISEASE.

(Under the care of Mr. HULKE.)

E. A., aged 50, a brass-founder, who, from want of work, had for several months been insufficiently nourished, came to the Royal London Ophthalmic Hospital, on December, 1860, complaining of great dimness of his right eye, which he had first discovered a few days previously by chancing to close the left eye. The right eye just distinguished the spread from the closed fingers at the distance of six inches, but could not count them; its pupil was large and inactive.

His waxy complexion and slight puffiness of the eyelids led to the suspicion of kidney disease, and a trace of albumen was found on examining the urine. It was now learned that nine years before he had had general dropsy, which lasted nearly a year.

The ophthalmoscopic signs were a greyish stone-coloured opacity of the optic nerve and surrounding retina, which diminished in intensity at a distance from the nerve equal to twice its diameter, and disappeared entirely in the equatorial region of the globe where the natural red colour of the fundus came into view. Minute brilliant yellowish-white dots were scattered over the opaque portion of the retina, which was also dappled with a few scattered crimson blotches of effused blood. The retinal arteries were with difficulty discernible in the opaque region; and the large venous branches seemed to terminate in a tapering manner at the surface of the optic nerve, an illusion due to the opacity of the nerve-tissues around them, which prevented their being traced far from the surface.

These morbid appearances have been found by German histologists to be due to an infiltration of the retinæ with a molecular albuminous substance, and to a peculiar transformation (termed sclerosis) of the connective elements, nerve fibres, and ganglion cells. The crimson blotches are capillary hæmorrhages similar to the purpuric spots, which in kidney disease occur in other organs.

GUY'S HOSPITAL.

INFLAMMATORY ENLARGEMENT OF THE TESTES IN AN INFANT.

This and the three following cases are reported from the practice of Mr. Bryant:—

Thomas M., aged 6 months, was brought by his mother to Mr. Bryant for advice concerning an enlargement of both testicles which had been observed at birth, and had been gradually increasing. They were about the size of unshelled almonds, and nodulated in outline; the growth was solid, and evidently involved the body of the testes. Manipulation did not appear to produce pain. The nature of the disease being obscure, tonics were given. After one month, it became evident that the disease was inflammatory, an abscess forming on the right, which opened and discharged. The left gradually became swollen; and after three months' treatment, both testes had returned to their normal size, and appeared to be sound.

HYPERTROPHY OF THE MUCOUS MEMBRANE OF THE LIP.

Caroline M., aged 4½ months, was brought to Mr. Bryant for some growth situated within the mouth on the right lower lip. The mother had observed it after the child's birth, and as it increased, she sought advice. On examination, it was evident that the mucous membrane of the lip was the seat of the disease. The swelling was harder than ordinary mucous membrane, and appeared to be composed of indurated mucous membrane and submucous tissue. Excision was readily performed, and the parts healed well. On subsequent examination, the growth was evidently made up of hypertrophied mucous membrane.

POLYPUS GROWING FROM THE UMBILICUS.

Charles N., aged 15 months, appeared before Mr. Bryant with a polypus the size of a large barberry growing from the umbilicus; it appeared after the separation of the cord, which took place on the second day, and had grown slightly since. The discharge from it was very slight and purulent. Mr. Bryant having examined it very carefully, and satisfied himself that it was not a growth similar to one which he had lately observed communicating with an open urachus, placed a ligature upon it. On the third day the polypus sloughed off, and convalescence followed.

DOUBLE INGUINAL HERNIA IN A FEMALE CHILD.

Mary C., aged 8½, was brought to Mr. Bryant with a double inguinal hernia descending quite down to the labium on each side. It had been observed only for five days, having come down when at play. The inguinal rings were very large, admitting the top of the little finger. The herniæ were readily reduced. A truss was ordered.

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Medical Times and Gazette.

SATURDAY, JULY 19.

APPRENTICESHIP.

We have lately been making inquiries into the actual state of Medical education and Medical schools, and on one important point have received testimony remarkable for its unanimity. That point is, the great improvement in the modern Medical student. Whether from lecturers and professors, from private teachers or from the lay functionaries of schools, the testimony is the same. All who have had five-and-twenty years' experience affirm that the Medical student of the present generation is better than his predecessors, and the points in which he is better are these:—There is a greater amount of preliminary general education, of consequent capacity for learning Medicine as it ought to be learned, better manners and behaviour, and less necessity for the worst kinds of *grinding*.

Together with this improvement in the student, we may affirm that the whole mass of the Profession is rising in public estimation. They are believed, and justly so, to be better able to do their proper work than they were. Their art is improving, and they are rising too. The professional and scientific aspects of practice are superseding the commercial.

The public come as clients, and not as buyers or customers. The Profession, as a whole, receives more money, and there is a larger number of men in lucrative practice.

This last point, however, is not universally true. There are some practices which have grievously fallen off, owing to the change in the system of supplying drugs. But this is simply unavoidable. The public now refuses to remunerate the Medical man by large payments for drugs. In towns, this kind of business is falling into the hands of the druggists, and it cannot be helped. These affairs follow a kind of natural law, as inexorable as that of the tides. It will be in vain for Practitioners of Medicine to fall back upon the old drug system. They must advance in their new line, and get their bread by professional services, and not by goods sold; and in this we have no fears for the future.

The public are being slowly educated to the appreciation of Medical advice, and of sanitary or preventive advice; and whatever they desire they willingly pay for. The educated classes know instinctively when they are dealing with educated gentlemen, and pay accordingly. The very boundaries of Medicine, too, are being enlarged; more things can be done; the sources of remuneration are increased. What a cutting off there would be from Medical incomes if no operation were known for cataract or stone; if all deafness were incurable; if vesico-vaginal fistula, club-foot, and distorted spines admitted of no relief! Conversely, every addition made to our art opens up a new mine, out of which remuneration will surely flow into our coffers. If epilepsy, amaurosis, deafness, hernia were more susceptible of relief, we should be the richer, in proportion as humanity would be the gainer.

The true policy, then, is to hasten the already existing improvements of the scientific and social status of our Profession; that is, in other words, to improve Medical education.

The old system was this. A youth was taken from school at fifteen, or even at fourteen, and apprenticed to a Practitioner to learn his business. He came afterwards up to town and walked an Hospital and heard a few lectures, to finish him and prepare him for the slovenly examination of the day; but his real education was that which he got between sixteen and twenty-one in his master's surgery. He learned the routine of business, but nothing which rested on a scientific basis. His education—supposed to be *finished* at fifteen—had been cut short at the critical age when the power of learning really begins to be developed; and all the mental discipline and training which mathematics and study of languages offered were suddenly cut off, never to be resumed. It was impossible to take up *study* after five years of fallow.

The gist of modern improvement is, that the Medical is directly developed out of general education. The study of languages, mathematics, and natural philosophy, leads directly to chemistry, physiology, and anatomy; these are followed by practical Medicine and Surgery in the Hospital. There is no break from beginning to end; the student is continuously taught, and not merely left to "pick up" information for himself, as he would be if turned loose in a Surgeon's house at fifteen as an apprentice, with the best part of his time devoted to the routine of the surgery, and his own inclinations only to suit as to any exacter studies.

But the vicious old routine is just that which the College of Surgeons seems to desire to revive, under the pretence of giving students the opportunity of availing themselves of clinical teaching at country Hospitals at the "commencement of their studies"!

If the recommendation were reversed, we should support it with all our might. The proper time for a real apprenticeship is surely towards the close of Medical study. That study ought to be continuous and exact, and to be unbroken; to present no hiatus of idleness or want of discipline, such as early apprenticeship involves. But when a youth has learned the elements of his Profession, then let him go as an apprentice, and see how it is carried on as a lucrative employment in real life. If we had to advise a Medical student towards the close of his curriculum, we should bid him seek admission to the family of one of our great provincial Surgeons as an apprentice. We do not refer to the Surgeons of those towns especially where Medical Schools exist, but to those in large country practice, and if attached to an Hospital or other public institution so much the better. There are scores of country Hospitals,—and the book we notice in this day's Number, by a Bristol Surgeon, shows the amount and variety of practice to be witnessed in them. In the family of a first-class country Practitioner the mature student would be on a very different footing from that of the idle boy who was the Medical apprentice thirty years ago. The life of a student in lodgings or chambers is not the most favourable for manners and discipline; but the proposed apprentice would be under the best circumstances for moral and social discipline. He would see the entire business of the Profession carried on in the best possible manner. He would throw off the habits of lounging about in dressing-gown and slippers, and learn punctuality, quick attention to the wants of the humblest patient, and the routine by which a practice may be made to pay. The knowledge of special branches of Medicine is admirable, but it ought to be superadded to a knowledge of Medicine as a whole; and nowhere can this be studied so well as under the eye of a first-class country Practitioner,—the man who is prepared for every emergency, and attends to every case, from the rarest operation in Surgery or Midwifery down to the humblest.

THE WEEK.

FEES TO MEDICAL WITNESSES IN CORONERS' COURTS.

Two instances have occurred lately in which the question of fees to Medical witnesses has been debated with no little acrimony, and with some scandal, in a Coroner's Court. One of these appears to have arisen from the presiding officer departing from the simple rule laid down by the late Mr. Wakley, of employing the first Medical man who happened to be summoned to see the deceased to make the post-mortem, and to give the necessary evidence. The case was one of suspected infanticide, in which there seems to have been sufficient evidence that the child had lived; but the proof of live-birth, in the legal definition of that term,—namely, that the child had been completely separated whilst living from the maternal passages,—was, as usual, wanting. A Medical man, Mr. Arthur D'Olier, of the Bow-road, was called to see the deceased child, which he found in a pail, with its head downwards. He examined the body externally, and had it removed to his surgery. It was thence taken to the Workhouse, and Mr. James Stephenson, the parochial Medical Officer, and not Mr. D'Olier, was employed to make the post-mortem examination. Both Medical men were summoned to give evidence, and both attended. The Deputy-Coroner, Mr. Walthew, refused to pay Mr. D'Olier the fee of one guinea, conceiving he was only justified in remunerating the witness who had made the post-mortem examination. Supposing always that Mr. D'Olier was summoned by the Coroner's order, of which fact the account of the inquest in the public journals seems to leave no doubt, we certainly think that the decision of the Deputy-Coroner was not in accordance with the Medical Witnesses' Act, which provides "that when *any* legally qualified Medical practitioner has attended upon any Coroner's inquest, in obedience to any such order as aforesaid of the Coroner, the said Practitioner shall for such attendance at any inquest in Great Britain be entitled to receive such remuneration or fee as is mentioned in the schedule hereunto annexed." The schedule referred to provides a payment of one guinea for attendance at the inquest, and a separate fee for the performance of a post-

mortem examination. Usually speaking, the attendance of a single Practitioner is only needed; but if a second be summoned, in our opinion, he is entitled to be paid. In this case, Mr. D'Olier having been the Medical man who saw the child under the circumstances which were supposed to have led to its death, was an important witness. The Medical Witnesses' Act evidently contemplates the necessity of calling more than a single Medical man to give evidence; for in one of its clauses it speaks of the "Medical witness *or witnesses* who may be summoned to attend at any inquest." The Deputy-Coroner would have avoided the dilemma in which he found himself placed by adhering to the rule which was constantly and impartially carried out by Mr. Wakley. We should recommend Mr. D'Olier to follow Mr. Walthew's advice, and appeal to the Coroner, Mr. Humphreys, against the decision. The other case was one in which a resident Medical Officer in a Metropolitan Hospital demanded a fee for making a post-mortem examination in the case of a person who had died within the Hospital. This was refused by the Coroner, who appears to have acted in accordance with the Medical Witnesses' Act. The Medical Officer claimed the fee on the ground that the post-mortem examination had been made on the Coroner's order, and therefore ought to be paid for as work done. However just this theory, we fear it is not in accordance with the law. The Act provides that if an inquest be held on the body of a person who has died in a public Medical Institution, that "in such case nothing herein contained shall be construed to entitle the Medical Officer whose duty it may have been to attend the deceased person as a Medical Officer of such institution as aforesaid, to the *fees or remuneration* herein provided." The words in italics evidently are meant to include all payments allowed by the Act. If a person be brought dead into an Hospital, the Medical Officer of the Hospital who is summoned to give evidence can demand payment, but not if death occur within the Institution.

THE PLEA OF INSANITY.

Dr. Hood has written to the *Times*, in reference to the case of Mrs. Vyse, to reassure the public mind on the subject of "impulsive mania." The object of his communication is to show that certain premonitory symptoms—"though often obscure and unobserved"—will be present, and that persons in perfect health do not commit causeless crimes under the influence of impulsive insanity. Respecting the case of Mrs. Vyse, he writes:—

"The hereditary tendency, probable effects of prolonged nursing upon insufficient nourishment, and her general constitutional debility, were all admitted, and without doubt influenced the jury in arriving at their verdict. One symptom of disease, and that a most important one, was not mentioned.

"On my first visit to her at Newgate I learnt that during the latter months of suckling she had been mentally overworked and subject to great anxiety and fatigue. When worried by her business transactions she suffered from a painful sensation seated in the interior of the cranium, on the surface of the brain, and which she spoke of as 'perspiring of the brain'—a symptom often complained of by patients who suffer from mental disease as giving a creeping, irritating feeling, but never more graphically described than by Mrs. Vyse. It is indicative of morbid action or secretion of the membranes of the brain, which is very manifest by examination after death."

With the general intention and tenour of Dr. Hood's letter every Practitioner will agree. But, to tell the general public that every debilitated, overworked, or hysterical woman who may complain of "a creeping, irritating feeling" inside her head, exhibits a premonitory symptom of paroxysmal mania, and is to be treated accordingly, is, we think, a very questionable and somewhat dangerous piece of information. Sensations of this kind are by no means confined to Lunatic Asylums; hardly any class of symptoms is more commonly met with. They *may* be caused by "morbid action or secretion of the membranes of the brain;" but, if we are to judge of cases from their terminations, such morbid action or secretion must, in the majority of instances, be remarkably evanescent.

THE LATE MR. PUCKETT.

We elsewhere publish a letter from Mr. R. Griffin, calling on the Profession to aid by a subscription the family of the late Mr. A. Stapleton Puckett, of Broadway, Dorsetshire, who was lately, whilst in the discharge of his professional duty, murdered and mutilated by a pauper lunatic. The principal facts of the horrible occurrence will be in the memory of all; we need not, therefore, recall them. Certainly no case could present stronger grounds for appeal. Here is an educated public servant deprived of life during the performance of a duty which a less brave and conscientious man would assuredly have shirked. By his death his family lose their only means of support. The scanty income which kept the poor hard-worked parish Doctor just above actual want, was totally insufficient to enable him to provide for those nearest and dearest in case of his death. It is to be hoped that the Home Government and public will not allow a man to lay down his life in their service without acknowledging the claims of those left behind him; but, whatever their conduct in the matter, let the more wealthy part of that Profession to which Mr. Puckett belonged, and of which he was no useless member, contribute to lighten in some small degree the stroke which has left his wife and children alone and penniless.

THE RETIREMENT OF THE MEDICAL CANDIDATE FOR THE CORONERSHIP OF THE WESTERN DIVISION OF MIDDLESEX.

We compliment Dr. W. Boyd Mushet on those qualities of prudence and circumspection he has so conspicuously displayed in the matter of the late election. It is true that some disagreeably plain-spoken persons will say that a golden opportunity has been thrown away, and that the interests of the Profession and the cause of a great principle have been sacrificed. But, "he that fights and runs away," etc.—we need not repeat the remainder of the adage. A great authority has left it on record that the better part of valour is discretion; in the which better part the Medical candidate has succeeded in earning—if not laurels—notoriety. We had been in communication with Dr. Mushet up to the time of going to press last week, and although he was evidently wavering, the latest information received was that he intended going to the poll. We state this in justice to ourselves, to account for our having furnished our readers with no intimation of his retirement in our last Number. Had calculation, forethought, and firmness been brought into play, a Medical candidate would, there can be little doubt, have been elected in the Western as well as in the Central Division of Middlesex.

THE INTERNATIONAL EXHIBITION.—DISTRIBUTION OF AWARDS.

The names of those exhibitors to whom the different juries have awarded medals or honourable mention, having been officially published, we are enabled to inform our readers as to who have been successful in Class 17,—that devoted to "Surgical Instruments and Appliances." It would occupy too much of our space to state the exact terms in which each award is made; but, in the great majority of instances, either "ingenuity" or "excellence of construction" is the reason assigned.

MEDALS.

United Kingdom.—Messrs Ash and Sons; W. H. Bailey; J. Barling; H. H. Bigg; S. S. Brown; J. Coxeter; W. F. Durroch; F. G. Erust; Evans and Stevens; J. Evrard; J.

and J. Ferguson; J. Gray and Co.; W. R. Grossmith; W. B. Hilliard; W. Hooper; Lawson, Buxton and Co.; T. Lemale and Co.; F. Longdon and Co.; M. Masters; W. Matthews; S. Norman, jun; E. O'Connell; J. F. Pratt; Mrs. S. Rein; Messrs. Savory and Moore; H. Simpson; W. H. Spratt; T. Weedon; Weiss and Son; R. Westbury; Whicker and Blaise; E. Whibley.

Austria.—Dr. J. Czermak; Dr. F. Hebra; Professor Hyrtl; J. Leiter; Dr. L. Türck.

Denmark.—Messrs. Nyrop; A. Rasmussen.

France.—MM. Auzouz; R. L. Béchard; J. J. Charrière; Dr. G. Duchenne; François and Fouquet; H. Galante; Graudcollot; P. Lackerbauer; A. Lami; E. Lavezzari; P. J. Lebelleguie; G. G. A. Lüer; Dr. J. Marey; L. J. Mathieu; E. Mericant; Nachet and Son; P. A. Pretcrre; Dr. Sales-Girons; L. P. T. Thiers.

Italy.—Messrs. P. and P. Lollini.

Prussia.—Messrs. Goldschmidt; H. Windler; A. Lutter.

Russia.—The Crown Factory for Surgical Instruments.

Sweden.—A. Stille.

United States.—Robert Bates.

HONOURABLE MENTION.

United Kingdom.—The Earl of Caithness; Messrs. J. Calkin; J. Faulkner; Gray and Halford; F. H. Hallam; W. Harnett; Mackintosh and Co; F. L. Puckridge; R. Griffiths; Rein and Son; Captain G. Russell; Small Brothers; Mrs. Sykes; F. Walters; W. H. Winchester.

Austria.—T. Stelzig.

France.—MM. Baillière; A. Boissonneau; A. P. Boissonneau; Burgogne, jun.; Burgogne, sen.; Charles; Darbo; Desjardins; Guérin; Madame Julienne; Dr. Junod; M. Lecuyer; Leperdriel; Leplanquais; Loriel; P. Simon; Talrich; Tollay, Martin, and Leblanc; Vasseur; Wickham.

Italy.—Professor Cav, M. Gaddi.

Japan.—Dr. Meyburg.

Netherlands.—Linden and Son.

Portugal.—Polycarpo.

Switzerland.—J. Winkler.

THE NEW LUNACY REGULATION BILL.

The House of Commons in Committee have decided, by a majority of nineteen, that the words, "nor shall the opinion of any Medical Practitioner be admissible as evidence of the insanity of such person," be struck out from the 3rd clause of Lord Westbury's Bill. The most objectionable feature in the measure is thus removed. The Committee, however, have retained the clause limiting the period over which the inquiry is to extend to two years. As discretionary power to admit evidence concerning anterior events is to be vested in the Judge, we do not regard this latter provision with particular aversion.

We are requested to state that all Members and Fellows of the Royal College of Surgeons are invited to attend the Conversazione at the College on the 5th of next month, on the occasion of the reception of the Members of the British Medical Association. The Members must be aware that it is impossible to send cards of invitation to each member individually; the President and Council wish them to understand that they will be welcome in their own College as a matter of course.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

To continue my notice of M. Mathieu's instruments, I will refer to the dilator for stricture of the rectum devised by M. Nélaton. This instrument is so curved as to be enabled to penetrate to the higher parts of the lower bowel, and is provided with a mechanism by means of which the two

Fig. 1.

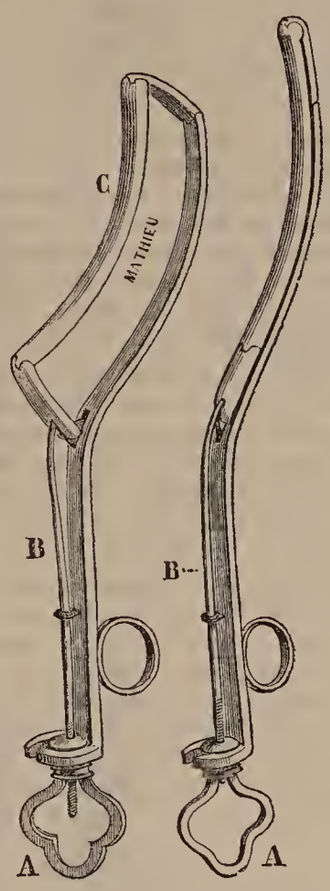
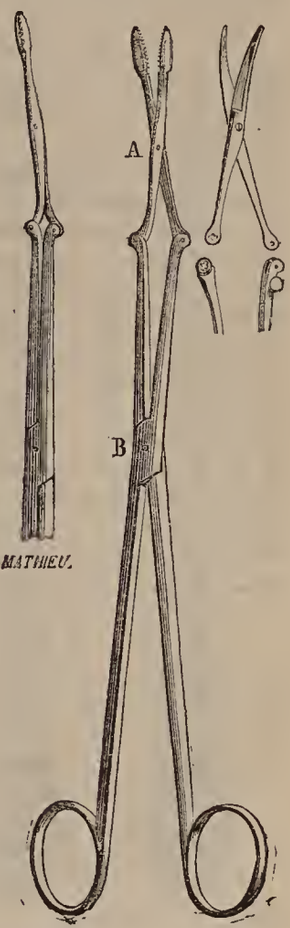


Fig. 2.

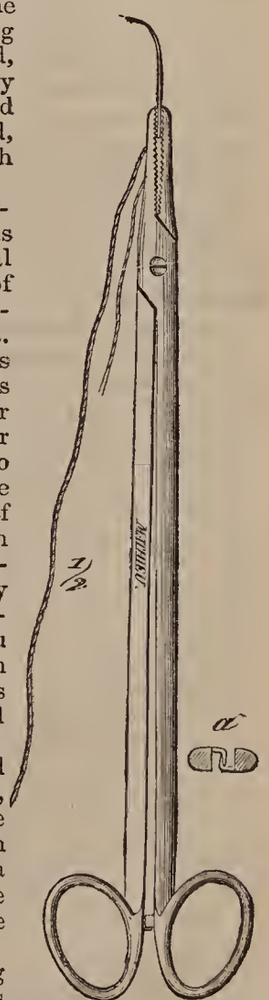


branches are separated without altering their parallelism, and without dilating the anal orifice.

Before introduction (see the above illustration, Fig. 1) the volume of the instrument is very small. By turning the screw A, the rod B is shortened, and the blades (C) are separated to any required extent. This simple and efficient contrivance is easily employed, and has been used several times with success.

Fig. 2 represents a pair of new forceps, the mode of action of which is very simple, and by the mechanical disposition of which a great amount of pressure can be exerted, notwithstanding the small size of the instrument. It is especially destined for operations on deeply-seated parts, such as the os uteri, pharynx, etc., and is made either straight or curved (see the smaller illustration, Fig. 2). M. Mathieu also manufactures scissors on the same principle, with which vegetations of the os uteri can be excised, and which are useful in many operations performed on the female genito-urinary organs. The mechanism of this instrument was suggested to M. Mathieu by Dr. Pfeiffer; but he has added an arrangement by means of which scissors and forceps can be alternately attached to the same handles.

Fig. 3.



A new mode of keeping forceps closed is shown in Fig 3. It is very simple, and consists of two hooks, placed one on each handle of the instrument, which the operator can engage by employing a slight amount of pressure, and separate by a lateral movement in an opposite sense.

M. Mathieu has succeeded in devising a plan by which he unites four trochars in one instrument as it were, which can be added to the

Fig. 4.

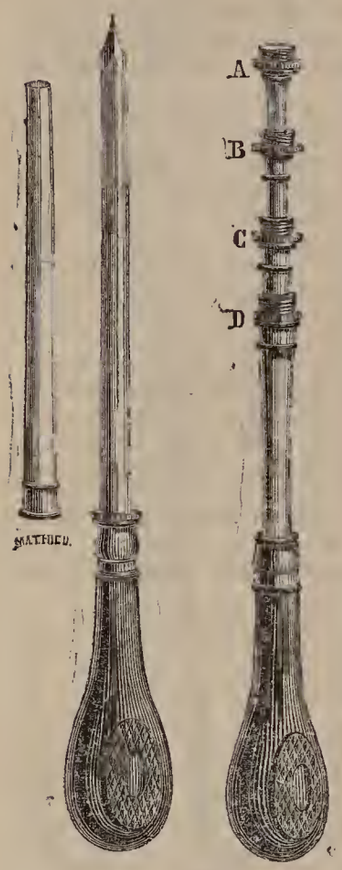


Fig. 5.

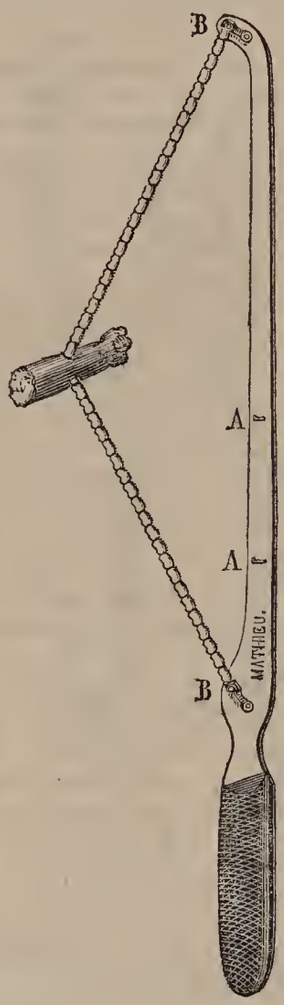


Fig. 6.

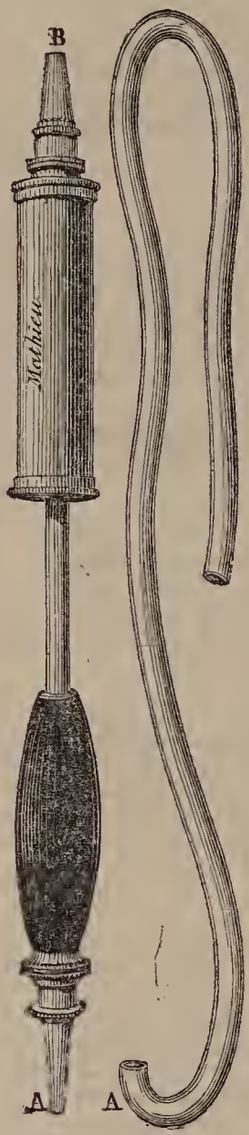


Fig. 7.

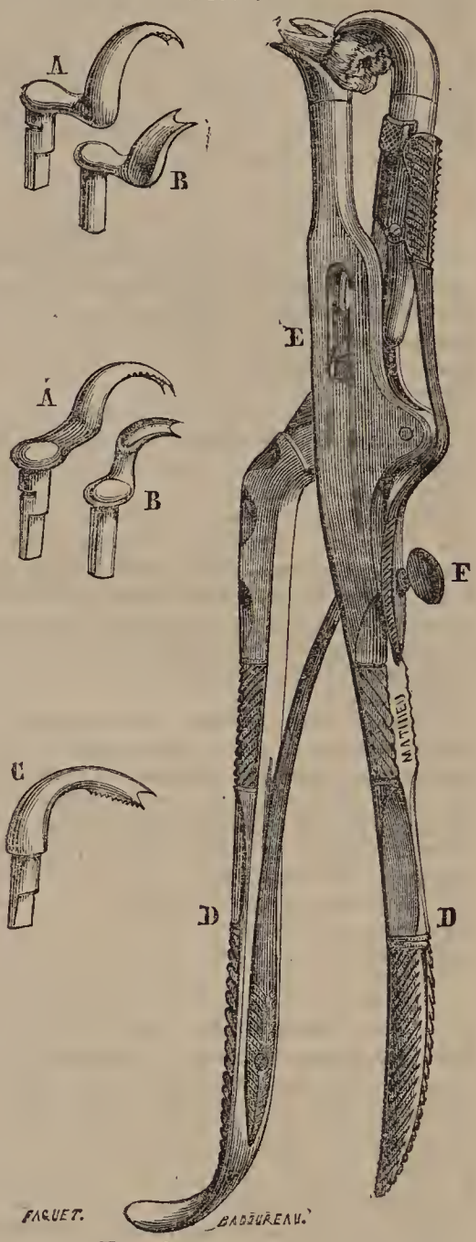


Fig. 8.

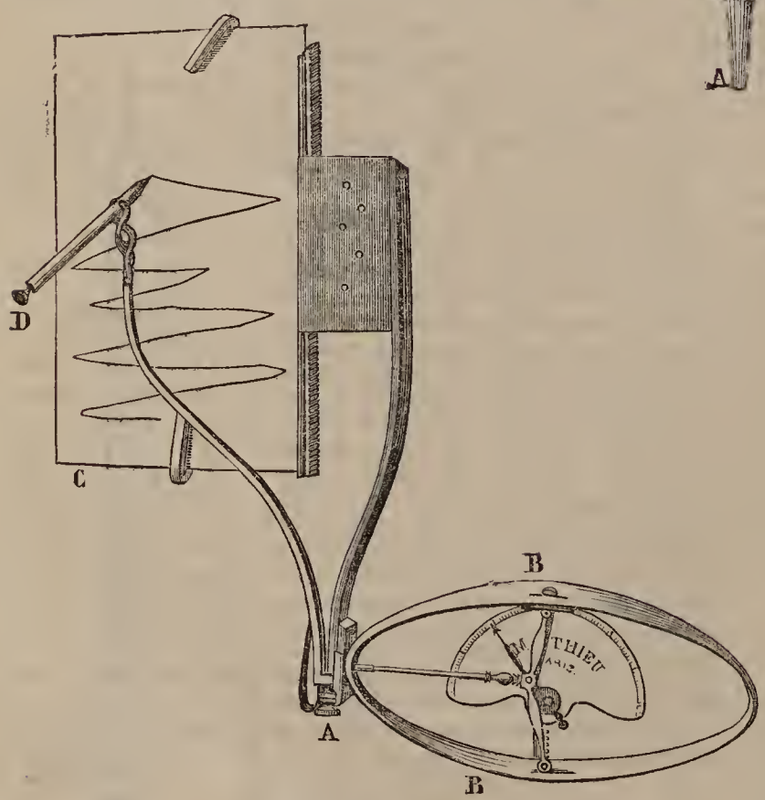


Fig. 9.

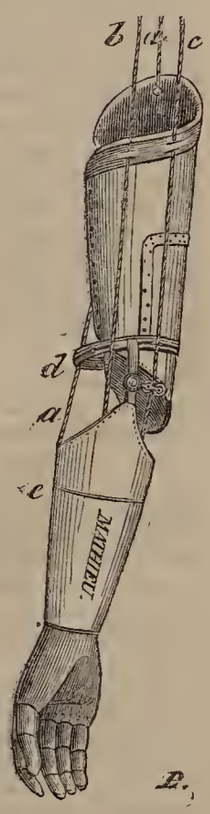
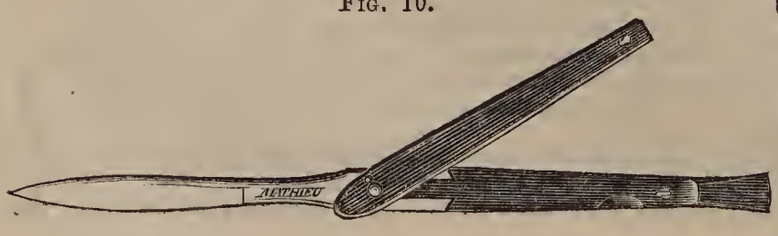


Fig. 10.



ordinary pocket-case. By referring to the adjoining illustration (Fig. 4), it will be seen that each trochar is made hollow, and they all fix one in the other; the largest of the four (A, B, C, D) being reversed and fastened in the handle. The figure also shows one of the trochars screwed into the handle ready for use, and its corresponding canula. The ingenuity and portability of this arrangement is at once evident.

The chain saw is an instrument which is hardly ever used in this country, although many French Surgeons are frequently in the habit of employing it. Hence the ingenuity of instrument makers is brought to bear on the production of contrivances to render it easy and sure of action. Fig. 5 is M. Mathieu's "porte-scie à chaine," intended to be used by one hand. The advantages derived from its employment are,—1stly, that the aid of an assistant can be dispensed with; 2ndly, that there is less chance of the chain saw being broken than when it required the use of both hands; 3rdly, that it divides a bone more quickly and surely, for, without any effort, the saw is always kept at the same degree of tension; and 4thly, that by means of the two projections marked A, A, the Surgeon can reduce the length through which the saw plays, and diminish the angle at which it cuts, so as to adapt it to the size of the bone which it is intended to sever, and the distribution of the parts which it is necessary to protect. The saw is fixed on its handle on two small points (B, B), and held there by two hooks, which are simply turned down for the purpose.

A double-action syringe is represented in Fig. 6, by which it is intended to remove a collection of fluid from any cavity, and subsequently to inject into it such a liquid as is likely to modify and cause adhesion of its lining membrane. By adjusting one end of the syringe to the canula it acts as an exhausting instrument, and by reversing it, the stream is directed in the opposite direction; so that by this means the penetration of air is avoided. It is useful in the treatment of chronic abscesses, ovarian cysts, etc., and it can also be employed as a stomach-pump. Fig. 7 illustrates the "attractif" of M. d'Estanque, devised for the extraction of the different teeth, as modified by M. Mathieu. Its mechanism is simple, and its action sure; but I am inclined to think that it is by no means an improvement on the ordinary forceps, when used by a practised hand, while it is not at all unlikely that fracture of the alveolar process and considerable laceration of the soft parts may result from its employment. It consists, as will be seen by reference to the figure (Fig. 7), of a pair of forceps terminating with hooks of different sizes (A, B, C), one blade of which slides on the other by a "slot" action (E) not unlike that of the corkscrew lately introduced by Mr. Lund. The small screw (F) fixes a strong steel spring which keeps the moveable blade of the instrument in contact with the tooth during the operation. The power of such an instrument is of course immense, and when once fixed on a tooth, and the handles pressed together, something *must* come; and not unfrequently, I should imagine, a considerable portion of the jaw in addition to the tooth itself. There can be none of that gradual process of loosening which is effected by the ordinary forceps, because the tooth is only pulled in one direction; and the hand cannot convey to the operator an idea of the character or position of any resistance that may be offered during extraction. For these reasons, therefore, I imagine that the "attractif" of M. d'Estanque will not find favour with Dental Surgeons on this side of the channel. It is one of those instruments which are intended to supersede manual dexterity, and all such contrivances must, in my opinion, necessarily fail to be of value to the intelligent Professional man.

The ingenious and interesting dynamographe of M. Mathieu is shown in Fig. 8. It is intended to delineate, by means of a pencil-point, the minute variations of muscular contraction, and the different changes which such contraction may present during certain diseases. The Practitioner may, in some cases, employ it with advantage both for prognosis as well as diagnosis; for the dynamographe will enable him to follow the progress, and indicate the degree of paralysis, as well as of other affections of the muscular system. It consists of a strong ovoid of steel, the two flat surfaces of which (B, B) are grasped in the hand, and pressed together. The amount of force exerted is indicated by the movements of the small index shown in the figure, and is communicated, by a very simple arrangement (at A), to a moveable arm which carries at its extremity a small pencil-point (D). The plate C, which is covered by a piece of paper, is moved slowly onward by clockwork; and on it the pencil delineates a line more or less uneven, which is accurately descriptive of the character of the muscular contraction which is brought to bear on the instrument. The second and stronger bar supports the small metal box containing the clockwork which sets the paper in motion.

I now come to the description of the artificial arm which was invented by M. Mathieu, and supplied by him to M. Roger, the great French tenor, the loss of whose forearm is a fact which is doubtless well known to the majority of English Surgeons. It combines supination of the forearm with rotation of the arm, and opening of the hand. The cord, *a* (Fig. 9), which flexes the forearm on the humerus, crosses over the shoulder and back of the patient, and is fixed in front to a button of the trousers; the cord *b*, which is fixed on the opposite shoulder, produces the movement of supination of the forearm, and at the same time opens the hand; and the cord *c*, which is attached to the trousers, extends the index. The mechanism of the metal ring (*d*) is so arranged as to permit rotation of the forearm. M. Roger writes that he is perfectly satisfied with the performance of this ingenious piece of mechanism; but I can give no personal opinion on it, as I have only had an opportunity of examining it for a few moments, and have not seen it worn by a patient. It is a beautiful specimen of manufacture, and its weight is by no means considerable.

I conclude my notice of this week by referring to Fig. 10, which illustrates M. Mathieu's mode of fixing several cutting blades into the same handle. As seen in the drawing, the handles are separated, and the blade, which has a large notch cut in it, is passed into its place. At the apex of this notch there is a still smaller one placed laterally, into which a small projecting piece of metal, indicated in the figure, is introduced when the handles are brought together. When they are fastened by turning a small button, the blade is held very firmly in position; but whether or not such a plan as this is likely to be permanently serviceable, is a matter of opinion. I have given mine in an earlier Number.

47, Hans-place, S.W.

REVIEWS.

The Ambulance Surgeon: or, Practical Observations on Gunshot Wounds. By P. L. Appia, M.D., Fellow of the Royal Society of Naples, of the Medical Societies of Geneva, etc. Edited by T. W. Nunn, Assistant-Surgeon to the Middlesex Hospital, and A. M. Edwards, F.R.S.E., Lecturer on Surgery in the Edinburgh Medical School. Pp. 266. Edinburgh: Adam and Charles Black. 1862.

This is a book intended to guide the Military Surgeon in actual service in the details of his duties. It is not quite a complete systematic treatise on the whole of Military Surgery, but something much more readable. It is rather a collection of essays, of unequal length, on some of the most striking and practical points, in writing which the author seems to have followed the bent of his own genius, or to have dwelt most on the subjects on which he had most personal experience. He has, therefore, produced a much more readable and useful work than if he had attempted a "systematic treatise." The editors tell us that they have abridged their translation a little. In some respects we think they might have made it more accurate. Nevertheless, if not great linguists they are good Surgeons, and have added a very useful chapter on Antiseptics. In so doing they are helping to remove an *opprobrium chirurgorum*, and show themselves to have greater breadth of soul than some of their craft. What the Hospitals of the future may be we pretend not to foretell; but we do know that there is no Hospital in existence in which the generation of poisonous miasma will not at times overpower all the means of ventilation. A Surgeon, therefore, ought to know how to prevent decomposition of the surface of wounds and the fluids which exude, and how to destroy offensive vapours as they arise. A perusal of the chapter which Messrs. Nunn and Edwards have contributed, may prevent the misuse and waste of many valuable disinfectants, and check many an epidemic of erysipelas or Hospital gangrene.

The first chapter treats of "old delusions," including the "wind" of balls, and their alleged poisonous effects. The second of diagnosis, in which the difficulties of estimating

the depth and direction of wounds are described. The third of prognosis, which is divided into Surgical and Medical. The Surgical prognosis estimates the chances of recovery according to the amount of injury *per se*. The Medical takes cognisance of the sanitary condition and general state of health. Here the writer shows how largely the mortality of wounds is influenced by the general sanitary state of the whole camp; if, for example, an army be suffering from conditions which breed ague, typhoid, dysentery, or cholera, or from bad food, or bad *morale*,—if, that is to say, those who are not wounded are in a low condition of vitality, and scarcely able to support the daily ordinary calls upon their strength, how can the wounded be expected to survive the enormous drain which the work of reparation involves? The next chapter is devoted to treatment under the several heads of dilatation, removal of foreign bodies and of splinters, the employment of water in various forms as a dressing, of bleeding, diet and hygienic measures, hæmorrhage, and tetanus. With regard to the last-named malady, Dr. Appia evidently favours the hypothesis—which certainly seems to ourselves most in accordance with fact and analogy—that it is a blood malady. "How," he says (page 91), "is it possible to avoid the supposition of the existence of a *general* unknown cause, of some poison analogous to purulent infection, which, starting from some given point, extends gradually over the whole body, and especially to the nervous centres? It is clear that tetanus is not due to a diffuse inflammation of the spinal coverings, but that the inflammation, if it exist, is dependent on an unknown cause, which the ancients would perhaps have baptised by the name of *acre tetanicum*." All experience seems to point to cold and damp as the most sure exciting causes; and we think it quite certain that irrigation, congelation, and wet dressings generally are capable of misuse.

The second part of the work is devoted to "Gunshot Wounds in Different Parts of the Body," and contains a special chapter, of forty pages, on gunshot fractures of the thigh, beginning with the history of such cases as the author witnessed in Paris after the Revolution of 1848. To this follows an account of wounds of the other limbs, and of the cavities in order, with a chapter on the transport of the wounded, and on a peculiar apparatus, consisting of a bundle of longitudinal air-cushions, which M. Appia proposes for the primary treatment of fractures. Here M. Appia's work appears to end. "It is," to use his own words, "not a systematic treatise on Military Surgery, but a series of studies on the questions relating specially to gunshot wounds, regarding which he has collected a considerable number of observations, and which he has been able to submit both to practical observation and to the comparative study of writers on the subject."

Besides the chapter on Disinfectants, the translators have added an account of Surgical appliances in general, including the apparatus for the treatment of hæmorrhage, wounds and fractures,—forming, in short, a kind of "minor Surgery." This includes some very useful woodcuts, calculated to refresh the student's memory as to the exact whereabouts of arteries, but, curiously enough, does not include any account of fractures below the knee. Altogether, we think the whole body of English Surgeons, and especially such as are attached to the Army, have reason to thank the translators for giving them a work so useful, from the large amount of personal experience which it records, and so agreeable, from its fresh, vivid style.

On the Treatment of Gonorrhœa without Specifics. By J. L Milton. Second Edition. Pp. 132. London: John W. Davies. 1862.

We may apply to the treatment of gonorrhœa what Turner said of his way of mixing his colours,—it requires to be done "with brains." The disease itself is one of a class whose natural history is pretty well known, but it requires some experience, tact, and good sense, and what we may call a "light hand" in the treatment, in order to use effective remedies without the risk of mischief. Mr. Milton seems to rely on aperients, sedatives, and injections of nitrate of silver. If, as he says, he takes a great deal of personal trouble with his cases, we do not doubt that he gets very good results. He disclaims the use of "specifics," by which he means copaiba and cubebs. In so doing, he deprives himself and his patients of the beneficial effects of remedies of undoubted power and efficacy when used by careful and experienced hands in the right cases. Nevertheless, without specifics, a man of brains can readily treat a clap. There may be as pedantic a routine in abstaining from certain remedies, as there may be in using them. Mr. Milton's book is written in a self-complacent, lively style, and may be useful to Practitioners, if such there be, who are not satisfied with the results of their treatment of gonorrhœa.

Manual of Midwifery. By Alfred Meadows, M.D. Lond., M.R.C.P., Assistant-Physician for Diseases of Women and Children at King's College Hospital, Physician Accoucheur to the St. George's and St. James's Dispensary. Pp. 318. London: Henry Renshaw. 1862.

This is a little book of the 32mo, or breast-coat pocket size. The author says that it was his object "*to increase and to facilitate the study of Midwifery*," believing "that it too often receives but a very inadequate share of the student's attention," and he suspects that this neglect may be "due to the fact of there being no small handbook on the subject." We thought that Dr. Rigby's treatise, or Dr. Churchill's, or Dr. Tyler Smith's, was quite small and acceptable enough; and if any one wanted anything very small indeed, there were the "Memoranda" of Dr. Rigby. Nevertheless, any man who produces a new book does a good service, if it be a good one, and we can pronounce Dr. Meadows's to be a good one, so far as it goes, though we suspect that its object will be best defined by saying that it aims at just the minimum of information which shall qualify a student for *shaving through* an examination.

A man who tries to write a treatise on Midwifery of the size of the present, is like one who tries to dance a hornpipe on the top of a barrel, or undertakes any other task hampered by self-imposed difficulties; he ought to possess the nicest logical power, and the knack of expressing his meanings in fewest words; and if not, he will produce a book in which the most important details will be conspicuous by their absence, or else be reduced to the vaguest generalities. We cannot say that Dr. Meadows's book is free from either vice. For example, the treatment of hæmorrhage, *post partum*, is given in twenty lines; and the forceps is discussed very meagrely. Yet, as we said before, although the book is absurdly small, yet it seems good so far as it goes; and if scarcely ample enough for the mature student of Medicine, it may be useful to the first-year's man who wants to get a first rough notion of Midwifery, and then may serve as a keepsake for the monthly nurse who shows him how to tie his first umbilical cord.

Ten Years of Operative Surgery in the Provinces: being the Record of 875 Operations Performed from 1850 to 1860. By Augustin Prichard, F.R.C.S., Surgeon to the Bristol Royal Infirmary, etc. Part I., comprising 639 cases. Pp. 174. London: Richards. 1862.

This is a book of a very high class, and contains materials for at least a dozen three-and-sixpenny treatises on specialities. It is a work which the experienced Surgeon will feel to be addressed to himself, and which will well repay the perusal. It treats of operations on the head, face, neck, eye, breast, and hernia. A short memorandum is given of each case, and some exceedingly sensible remarks at the conclusion of each division. The book is neither bulky nor pretentious, but contains a vast deal more useful stuff than many which are both. It tells well for the healthy state of Surgery in the West of England.

The Science of Home Life: based on the Third Edition of "Household Chemistry." By A. J. Bernays, Professor of Chemistry, etc., at St. Thomas's Hospital. Pp. 386. London: W. H. Allen and Co. 1862.

Among that useful class of writers, the popularisers of science, Dr. Bernays is well known by his "Household Chemistry." His present work is one of the best of its class. It not only conveys, in a pleasant style, aided by excellent woodcuts, the laws of heat, combustion, and much useful information concerning the atmosphere, water and food, but embraces many subjects which but rarely come before the general reader, such as the chemistry of glass, porcelain, soap, and of bleach-

ing and disinfecting agents. On many of these subjects Dr. Bernays has some original observations. Thus, speaking of the dietetic value of gelatine, he suggests that its solvent power upon earthy phosphates might be turned to useful account in the treatment of certain diseases. Throughout the work Dr. Bernays does good service by protesting against the habit, too common among chemists, of ignoring every consideration except pure chemistry. For example, he refuses to believe that chemistry alone can solve the vexed question as to the precise action and value of alcohol.

On the whole, the book is useful, and may serve as light reading for the Medical Practitioner, and serious reading for his daughters. In order to make the narrative flow more easily, the author has condensed the drier and tougher portions of his matter into foot-notes, which the lady readers may skip if they please. Albeit the work is a "popular" one, we cannot help noticing certain defects in logic and precision. The language throughout is rather flabby; and when the author tells us seriously that *vitellus*, the yolk of egg, is derived from "*vita*, life," we can only thank our stars that his chemistry is more reliable than his philology.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, July 14.

DOCTORS AND INSURANCE OFFICES.

The relations between Medical men and Insurance Offices have recently formed the subject of animated discussion in Professional circles here, as was the case some time ago in London and Berlin; but in this country we have taken quite a different view of it than our English and German brethren have done. The delicate question of fees did not enter much into our deliberations; but we held that it was neither the duty of the family Physician, nor had he the right, to communicate to strangers his opinions on the health of a person, with which he could only have become acquainted through the confidence placed in him by his patient. If the health of the person concerned is such as to prevent or impede the insurance, the result is detrimental to both doctor and patient, and the only way of getting out of this difficulty is not to give any such Medical opinions at all. The Insurance Companies are at liberty to appoint special Medical advisers, who may examine the persons wishing to insure their lives, and give their report accordingly; but these Companies should not be allowed to trouble family Physicians to break their faith to their patients, and to divulge Professional secrets. All the members of the Medical Society of the Second Arrondissement have solemnly declared that they will never condescend to violate Professional secrecy in this manner, and have invited other Societies to join them in this resolve.

MAD DOGS.

The tax on dogs, which was in 1855 imposed on all individuals of the canine species living within the area of the French Empire, has, although it considerably added to the exchequer, failed to be of any use as regards the diminution or prevention of hydrophobia, which has, on the contrary, very much increased of late, especially in the capital. M. Rénault is of opinion that the only means of preventing the spread of this disease is to make it incumbent upon every owner to muzzle their dogs, which has proved a radical remedy for hydrophobia in Prussia. From 1845 to 1853, there were 278 cases of rabies observed in the Royal Veterinary College of Berlin, in spite of the tax on dogs. In 1854 a police constable was bitten by a mad dog in the streets of the Prussian capital. This intrusion of a crazy quadruped upon the sacred person of a Prussian official, roused the indignation of the Government, which resolved that henceforth no dog should be allowed to run the streets without a muzzle, and that every one of them found devoid of this implement should be forthwith slaughtered. This has worked so well, that from 1854 to 1856 only nine cases, and from 1856 to 1861 not a single case of rabies has occurred in Berlin. According to M. Rénault, hydrophobia is scarcely ever of spontaneous origin, and muzzles, far from giving rise to angry feelings in the breast of dogs, and consequently exciting madness, are in fact the only means of preventing this disease, unless we should resort to the "perfect cure" of annihilating at a blow the whole species.

ANOTHER CASE OF OVARIOTOMY.

This operation is in a fair way of becoming a favourite one with French Surgeons. Another successful case of it has just occurred at Strasbourg. The patient was a married woman, aged 26, who first began to suffer about two years ago. The enlargement of the abdomen soon became very considerable, and the patient weak and emaciated. The relative advantages of tapping and ovariotomy having been expounded to her, she decided for the latter, and was operated upon by M. Kœberle on June 2. The operation lasted three-quarters of an hour, there being rather firm adhesions; and it was done much in the usual manner. After it had been finished, two bags filled with ice were placed on the incision, where they were kept on during eleven days. The patient vomited a good deal for the first day or two, and was consequently given two-thirds of a grain of morphia for eight days consecutively. In order to arrest the putrefaction of the pedicle, perchloride of iron was applied to it, whereupon it became quite dry. The pedicle came away on the thirteenth day after operation. On the fourth day there was considerable tympanitic distension of the abdomen, due to obstinate constipation, and which only yielded on the sixth day. The sutures were removed on the seventh day, but at once replaced by threads fixed with collodion to the abdominal parieties. The pulse was 95 on the first day, 82 on the second, 86 on the third, and 128 on the fourth. After the eighth day it did not again exceed 95, and on the nineteenth day it was 82. At that time the patient walked about, had excellent appetite, and gained flesh rapidly. By June 25 she was completely cured.

YELLOW FEVER IN MEXICO.

Letters have been received here from Surgeons attached to the French Army now in Mexico, which give some account of the yellow fever now raging in Vera Cruz. M. Bulz writes that that town is exceedingly unhealthy, and that sporadic cases of yellow fever occur there during the whole of the year; while the annual epidemic mostly lasts from May till September. This year it began as early as March, probably in consequence of the occupation of the country by the foreign armies. The Spaniards were the first to suffer, and they suffered severely, although many of them were, owing to a previous stay in the Havannah, somewhat acclimatized. The fever is altogether of an adynamic character, there being no violent crises, and little exacerbation and remission, but great prostration of strength from the beginning. The fever lasts from twenty-four to forty-eight hours; if it exceed the last-mentioned term without remission, the case generally proves fatal. Vomiting then sets in, which is at first bilious and afterwards becomes black. Death ensues without any other remarkable symptoms. If on the third or fifth day a remission takes place, the patient remains in a very low state, he is in a sort of stupor; and if he recovers, convalescence is protracted over a very considerable period. Sometimes the disease has a very insidious course; the patients die without vomiting, icterus, or suppression of the urine. The treatment mostly consists of purgatives, such as castor oil, and tea for exciting the action of the skin. Bleeding is only rarely resorted to, and, when ordered, is generally followed by bad results, even in plethoric persons. Until the end of May, 12 per cent. of those affected by the fever have died.

DIABETES TREATED WITH SUGAR.

M. Rigodin has recently recorded a case of diabetes cured by the administration of large doses of sugar. This medication was first recommended in 1842 by M. Chevallier, and afterwards taken up by M. Piorry, who was very well satisfied with it. Messrs. Bota and Jordao, in Spain, and Dr. Budd, in England, have also recommended the same. M. Chevallier administered up to sixteen ounces per diem, while M. Rigodin only prescribed three cups of coffee, "exceedingly sweet," to be taken every day. His patient, however, took at the same time claret, brandy, grog, and Vichy water. Amongst these potent agents, grog seemed to particularly agree with him, and on sipping his glass he used to say, "This restores my life." It may be that claret, brandy, grog, and Vichy water did more for the unfortunate man than the three cups of "exceedingly sweet" coffee he was ordered to swallow besides.

Mr. Robb, the eminent baker of St. Martin's-lane, whose biscuits are well known to most of our obstetric readers, has given £1000 for the permanent endowment of a bed in the children's wards at the Charing-cross Hospital.

GENERAL CORRESPONDENCE.

IDIOCY AFTER DIFFICULT PARTURITION.

LETTER FROM DR. RAMSBOTHAM.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the last number of your Journal Dr. Mitchell has opened up a very interesting and, to me, novel question respecting the comparative frequency with which idiocy in the child follows lingering labour, delivery by forceps or version, and the various anomalous complications of human parturition.

His statistics, however, are quite at variance with my experience. On reference to my note-books, I find I have delivered 408 children by the forceps, in consequence of the mothers' labours being protracted, independently of those cases of hæmorrhage, convulsions, etc., where the same means were resorted to. A very small proportion of these children were born dead, and among the survivors I have not been made acquainted with a single case in which any, the least, imbecility of intellect has manifested itself. Many of these children, indeed, I have myself watched in their growth up to puberty, and known them to possess mental faculties quite equal to their fellows. The same remark applies, as far as my practice is concerned, to children born under the other dangerous casualties attendant on parturition. I cannot call to mind one idiot among them. There are no observations, as far as I know, in any of the many treatises we have on Midwifery which would bear out Dr. Mitchell's conclusions; nor have I ever heard a single Accoucheur make any remarks that would tend to establish his assertions. If, therefore, Dr. Mitchell makes good the point at which he aims, he will indeed be throwing a new light upon Operative Midwifery in most of its varieties.

Dr. Mitchell states that of the 494 idiots or imbeciles who were the subjects of his examination, twenty-two were delivered by the forceps, and that "in nine of these cases bald patches or cicatrices about the head attested the use of the instruments." That is, he believes that nearly one-half of these children were so injured on the scalp by the pressure of the forceps that slough formed, and that ulcers and cicatrices followed,—a consequence of the use of that instrument certainly very rare, and which I do not recollect ever having occurred in my practice. A red or livid mark is not unfrequently apparent on the head at birth (especially when the long forceps is used), denoting the position of one or other of the blades; but these, in my experience, have invariably disappeared, as any other flesh-bruise would do, without a slough forming. Therefore, I should be disposed to attribute these "bald patches or cicatrices" to some other cause, and not to the pressure of the forceps. I am, &c.

FRANCIS H. RAMSBOTHAM.

8, Portman-square, July 12.

PHYSICIAN, HEAL THYSELF!—A NEW WRINKLE IN THE TREATMENT OF GOUT.

[To the Editor of the Medical Times and Gazette.]

SIR,—As I am now very unexpectedly in a state of perfect comfort from having adopted a very simple plan of treatment during a fit of gout, allow me to tell it to my Medical brethren. Permit me also to be somewhat prolix, that I may indicate the train of reasoning which led me literally to my present haven of rest.

On the morning of April 6, I was awakened with severe pain in the dorsum of the left foot, which increased in intensity during the day, prevented sleep during the night, and increased to such an extent on the morning of the 7th, that I could no longer doubt that I was "in" for my first attack of gout (hereditary) at the age of 42. As I lay vainly seeking for an easy position, my mind was busy analysing the seat and nature of the pain. It resembled the pain of a very severe sprain I had had years before in the same foot. After a while some comfort was gained by placing the sound foot behind the lame one, so as to support it; but sleep was impossible, as after the sprain, for no sooner did oblivion touch the senses, than a fearful twitch awoke them to life. To relieve the member from the weight of the bedclothes, an ordinary arch was adopted, but the amount of comfort it produced was small.

The 8th found me in greater suffering than ever. My mind had now come to the conclusion that the pain was due to the stretching of ligaments, of tendons, of muscles, and of muscular fibres. The swelling of the foot and the redness of the skin showed the presence of inflammation, and I was familiar with the exquisite sensibility of all inflamed fibrous tissues. This stretching was readily accounted for, as it is clear that in the ordinary position of the foot in bed, especially when pointed upwards, there is much leverage on every joint anterior to the heel, and also that the posterior muscles, being more powerful than the diseased anterior ones, tend directly to elongate the former. The veins, too, about the foot were swollen; they are fibrous, and very little distension of their calibre by coughing, blowing the nose, or hanging the foot down increased the general pain. Perfect rest, when it could be got, was pleasant, and none was such complete rest as that obtained by a gentle hand behind the "sole," the toes at the time pointing upwards. From these considerations, I got a high hassock in the bed, against which I could rest the sole of the foot, and I then found the supine posture preferable to any other; but even when lying on my side, I found it a comfort to have the "sole" supported. Late on the 8th, the intense pain began to subside, and the opiates, which were useless before, procured sleep. On the morning of the 9th, the foot was swelled, angry-looking, red, exquisitely tender to the touch, but comforted by pressure and gentle rubbing, and as helpless as a log; every attempt at moving it was stopped by pain. I was confined entirely to bed, for pain prevented me using the leg at all; but while at rest I felt nothing wrong. If, therefore, it occurred to me, I can keep in this quiescent state perpetually, I shall gain some comfort. After turning over in my mind many contrivances, none seemed to promise better than the old-fashioned strapping with strips of adhesive plaster. I had adopted the plan not long before in an Hospital patient who had a gouty knee, and with apparent success; and by the same means I had cured many very acute pains in other parts of the body.

I soon got the plaster, duly cut it, and then made the trial, being my own Surgeon. The placing of the first few strips was very painful, as on each occasion I had to raise the foot from the bed, but ere the fifth was placed the comfort began to be marked. Each strip subsequently increased my powers, and when at length I had the member encased from the toes to four inches above the ankle, all pain had gone, except when any great strain was laid on the foot. In a few minutes I was out of bed, with a light chair as a support for the knee of the lame leg, and with a slipper on the other, making a tour to the neighbouring room-windows to inspect some horticultural proceedings. Shortly afterwards I used an enema comfortably, having been in too great suffering previously to venture on any movement of the bowels. (How I should have anathematised a Doctor, had I been a layman, who had treated me with purges!) In fine, I was able to do anything but walk or stand on the leg. The night I spent was a pleasant one, and on the morning of the 11th the swelling of the foot had gone down so much that I had to renew the strapping. On removing the strips, the pain was almost as bad as it had been the day before, but the inflammatory redness had all subsided, being replaced by a purplish hue. The strapping having been replaced in such a manner that the sole of the foot is at right angles with the leg, I am now able to walk slowly with the aid of a stick,—a feat which I dared not, a few days ago, hope to attain to for some weeks to come.

Now, I believe, Mr. Editor, that the above plan is a novelty. I doubt whether I dare have recommended it to another's foot; I know that I did not do so to my father, and that my own wife urgently recommended me not to use plaster to such an angry skin as mine, or to such an inflamed foot. As a novelty I introduce it, but back it with the testimony of my own personal experience. The completeness of the relief I can only compare to that following the evacuation of a painful abscess. Of its verity any one can judge by taking the straps away for a while, and then replacing them.

I have indulged too much in the egotistical vein to allow me to sign my real name (which, however, I will give to any one who cares to have it); I must, therefore, subscribe myself AN HOSPITAL PHYSICIAN.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, July 8.

Dr. Babington, President, in the Chair.

A Paper, by Mr. W. M. Baker, was communicated by Mr. James Paget, on

CONTRIBUTIONS TO THE STATISTICS OF CANCER.

The cases of cancer from which this Paper was constructed were 500 of those recorded by Mr. Paget between the years 1843—1861, and all of which had come under his own observation. Only the external or so-called Surgical cancers were included in this number. The first part of the paper showed the proportion of cases in each organ and each sex, and the per-centage of the several kinds of cancer,—each part of the body being attacked, as a rule, by one form of the disease almost exclusively. The greater frequency of cancer in females was found to be due to cases of scirrhus of the breast; in the cases, in almost all the other external organs, especially those subject to epithelial cancer, the proportion of males was greatest. The influence of age was next noticed, and the increasing liability to cancer as people advanced in life; the absolute number among the 500 cases at each age being given, and also the relative frequency in proportion to the whole population living at the same period. In external organs, medullary was found to be the most frequent variety in youth; scirrhus and epithelial in middle and old age. The number of females affected with cancer, in proportion to the whole population, was found to increase rapidly from the earliest age up to 40—50, and then more gradually decline. In males the number increased up to the age 50—60, and after this declined again, the rise and fall being both of them more gradual than in females. The kind of cancer to which each sex was most liable accounted for the difference. The condition of the female patients—whether single, married, or widow—was noticed, and also the influence of each on the production of cancer. The proportion of cases of cancer in the breast was found to be greater in the married than in the single, both absolutely and in proportion to the number in which the two classes exist in the community. The state of health of the patients at the time of the beginning of the disease was ascertained, and found to be good in a very large majority; a rather larger proportion of the medullary and epithelial than of the scirrhous being in bad health at this date. The question of cancerous inheritance was in the next place considered, and answered in the affirmative, 24 per cent. of the patients giving a history of cancer in other members of the family; the per-centage, too, in the private cases, in which the family history would be better known, was considerably greater than in the Hospital. The variety of cancer was not always the same in all the members of the family attacked. Tables of the date of recurrence after operation were given, and the several kinds of cancer compared in this respect; the average number of months which elapsed between the date of removal of the primary disease and the recurrence, was greatest in scirrhous, and least in epithelial, but a larger proportion of cases of the last variety remained without any recurrence for a period far beyond the average. The date of recurrence after early and late operation was compared; the difference between the two being but small, probably from the acute cases being the earliest to be removed and to return. One or two of the cases, remarkable by their long-deferred recurrence were given more in detail. The last part of the paper was devoted to considering the duration of life, especially with the object of comparing the cases of operation with those in which the primary disease was not removed. The greatest difference in the two sets of cases was found to exist between the epithelial cancers, and the least between the medullary; but a marked increase of life on the side of the operations was present in all the varieties. Part of this result is, of course, due to the selection of cases for operation. Some of the organs were compared separately, and the same advantage on the operation side was shown in each, with one exception—viz., the bones, in which the duration of life was exactly the same on both sides. The influence of early and late operations in respect to the duration of life was also considered, and as in the recurrences, only a slight difference was observed; indeed, the length of life was greater in the cases in which the operation was performed at two to five years after the first observation of the disease than in those at one to twelve months, the former being all chronic cases. Lastly, the duration of life in the Hospital and private cases was compared, and the advantage shown to be on the part of the Hospital. Some of this difference may, however, be accounted for by a large number of the Hospital cases being submitted to operation.

Mr. Henry Lee related a case of

ANEURISM OF THE INTERNAL ILIAC AND COMMON FEMORAL ARTERIES, TREATED BY DIGITAL PRESSURE.

The history of the case was given at length. From the symptoms observed, it appeared that the digital pressure had the effect of producing a very firm coagulum in the sac of the aneurism. But as the artery was unusually brittle, the upper part of the aneurismal sac had become completely separated from the lower part. The coagulum formed was consequently unsupported by any of the coats of the artery, and after a time gave way. The blood was effused in the thigh and in the pelvis; and those portions of periosteum which were in contact with the effused blood had numerous minute fresh formations of bone upon their surface. These little bony formations could be readily detached with the nail. From the description of the remains of the aneurismal sac, and from the drawing which accompanied the paper, it appeared how impossible it would be in such a case to tie the arteries from within the sac, as had lately been proposed in the Society. The ligature of the external iliac artery in the case related would not have succeeded. The upper and lower portions of the artery having been completely divided, any coagulum which formed, whether in consequence of ligature or compression, must ultimately have given way.

EPIDEMIOLOGICAL SOCIETY.

Monday, June 2.

Dr. Babington, F.R.S., President, in the Chair.

A Paper, by Dr. Slayter, was read by the Secretary, entitled,

NOTES ON THE RECENT PREVALENCE OF YELLOW FEVER IN SEVERAL OF H.M. SHIPS OF THE WEST INDIA SQUADRON UPON THEIR ARRIVAL AT HALIFAX, WITH REMARKS ON THE CLIMATE AND DISEASES OF THAT TOWN.

Halifax is built on a promontory nearly surrounded by water, and lies on a slope opposite one of the noblest harbours in the world. It possesses a well-arranged system of sewerage, and the houses are not overcrowded. The soil is dry and free from alluvial deposits and from those miasmatic influences so necessary for the propagation of contagious diseases. The temperature in the hottest days of summer seldom exceeds 80°, and is generally below 75°. All these circumstances tend to render Halifax the safest rendezvous for seamen suffering from that fatal scourge of yellow fever which has for some years past been prevailing so extensively in the Gulf of Mexico. H.M. ship *Firebrand* arrived from Jamaica at Halifax on July 4, 1861, after a passage of twelve days. There were then 79 of the crew on the sick-list, all fever cases. Ten deaths had occurred during the voyage from Port Royal. Many of the sick were moribund; the attendants were exhausted from constant watching; and dejection prevailed among all on board. The atmosphere in the between-decks was very impure, the port-holes having been closed in consequence of stormy weather. All the sick were at once transferred to a hulk moored off the Naval Hospital, and the convalescents and others sent to a storehouse in the dockyard. There were 15 convalescents, 30 convalescing, and 34 seriously ill at this time. Several fresh cases occurred subsequently, and two were fatal with black vomit. Besides these deaths in the Hospital on shore, 16 took place among the sick in the hulk. From the commencement of the disease the *Firebrand* lost 49 of her crew out of 107 attacked. H.M. ship *Spiteful* arrived on August 16, 1861, at Halifax, from the Bahamas, which she had left seven days before. Eleven deaths had occurred on the passage, and 46 cases were on the sick-list on arrival; 2 died that night. The sick were at once sent to

the hulk, and the convalescents and the well to the dockyard. Some of these sickened with the fever on shore, and were then transferred to the hulk. Altogether 33 sick were treated at Halifax, and of these 12 died. The *Spiteful* lost in all 36 of her crew out of 88 attacked. H.M. ship *Racer* arrived at Halifax from Nussan on September 3, 1861. During the passage 19 cases and 5 deaths occurred. Several fresh attacks took place after arrival. The total number of attacks among the crew of this ship was 61, of which 20 proved fatal. The case of H.M. ship *Jason* is especially instructive. She reached Halifax on September 2, 1861, from the Gulf of Mexico, which she had left sixteen days before, in consequence of fever having broken out on board. During the voyage 46 fresh cases and 10 deaths took place. All the sick were sent to a building in the dockyard. A good many fresh attacks occurred after arrival. The total number of attacks among the crew was 79, and 17 proved fatal. About the middle of November, the *Jason* returned to the West Indies. She had been cleaned out while at Halifax, and much filth removed from her hold. Her ventilation also, which had been very defective, had also been improved by cutting fresh hatches in the decks, taking down bulk-heads, etc. Within eight days, however, after leaving Halifax, typhoid fever appeared among the crew, and the two first cases were fatal. The disease continued to appear at intervals on board while the ship was off the Mexican coast. It did not assume the characters of black-vomit fever until the month of March, and the change of type seemed to be consequent upon the ceasing of the northerly winds and the setting in of close muggy weather. Before the decided yellow fever manifested itself, the health of the ship's company had not been satisfactory; cases of ordinary catarrh, dyspepsia, and diarrhœa, showing a tendency to lapse into fever. The same thing had been observed the year before, prior to the outbreak of the more malignant disease. Notwithstanding the purification of the ship's hold at Halifax, and every effort to keep them as clean as possible, the bilges were at times offensive. It was judged expedient that the *Jason* should again leave the West Indies and proceed to Halifax, which she reached at the end of April. No fresh cases of fever had occurred on board for a fortnight previously. Without further details, it may be mentioned that of 855 men, the aggregate crews of five steamers, no fewer than 499 were attacked with fever, and 162 died. It is instructive to learn that not a single case of the fever occurred among any of the people about the dockyard at Halifax, or in any other person of the town. In conclusion, Dr. Slayter remarked that Halifax has not been visited by Asiatic cholera since 1834; that diphtheria has prevailed for the last six or seven years; that the practice of vaccination is at times much neglected, and that consequently small-pox is every now and then making its appearance. Unfortunately, there is no correct registration of deaths kept.

Dr. Copland was of opinion that the original source of the fever on board the ships and subsequent unusual occurrence at Halifax, were readily explicable by infection. He believed, also, that there was in many respects an affinity between yellow fevers, typhus, and typhoid fevers.

Dr. Milroy pointed to the highly important facts mentioned in the history of the *Firebrand* and of the *Jason*, as affording strong evidence how much the malignity of the fever, if not its actual development, was dependent upon the condition of the ships themselves in respect of ventilation of the decks where the men were berthed, and of the state of the holds. This paper strongly confirmed the views of Dr. Archibald Smith as to the intimate alliance between yellow and typhoid fevers, and showed the necessity of adopting the same sort of preventive measures in both.

Dr. Babington said that we might draw two important conclusions,—first, that yellow fever is certainly under certain circumstances contagious, just as typhus is; and secondly, that although contagious, we must recognise the great importance of sanitary precautions in preventing and arresting it.

Dr. Archibald Smith (for many years resident in Peru), in answer to a question of the President on the influence of temperature on yellow fever, stated that he had noted all the essential symptoms of the disease at an elevation of 11,250 feet, with a temperature in the wet season of 62° within doors, with little variation day and night. At this temperature the disease lost none of its energy. In 1853 yellow fever appeared simultaneously on both sides of the Andes, and in 1854 assumed its most malignant character as well by the sea-board as on the hill-land. It was shown that these epidemics were of one generic nature. The yellow fever symptoms became modified gradually into the typhous or typhus, in the transit from the Pacific shores to higher and still higher regions of the Andes. In the warmer inland valley, as, *e.g.*, in the sugar-growing district of Abancay, the fever, which near the snows of the Cordilleras was metamorphosed from the typhus-icterodes of the coast into a form which, in a great measure, represented ordinary British typhus, was again reinstated with its most aggravated coast symptoms of yellow fever, such as intense frontal headache, dark sanguineous vomiting or evacuations, subcutaneous hæmorrhage in form of large, dark maculæ, nasal hæmorrhage, intense yellow colour of the skin, and the most extreme prostration of vital forces. In the Sierra it was propagated slowly from place to place, and from person to person. It was all but incurable in the dark and crowded huts, but yielded readily in a great majority of cases to early treatment, under the advantages of pure air and hygiene. Left to itself in the hovels of the Indian poor, it was prodigiously fatal.

Dr. Chowne and others took part in the discussion.

OBITUARY.

DEATH OF DR. BERNARD.

We regret to have to record the death of Dr. Bernard, at his residence, South Mall, on the morning of July 9, from typhoid fever of the worst character, taken while in the discharge of his duties as Dispensary Medical officer of the centre district of our city. His death, we are sorry to have to report, is the third that has occurred within the short space of a week from the same class of fever that Dr. Bernard died of. Most of us, as we see the Medical man walking or driving through our streets, imagine that it is a very fine thing to be in such repute, as to be either constantly on foot, or on a car going from house to house, and, as the vulgar expression is, making money; but if we look a little closer into the life of the Medical man we will see that his life is not, as we might at first suppose, all *couleur de rose*. There is a fearful anxiety and tremendous responsibility, a harassing suspense, that in the end makes the young man old, the most frivolous and trifling of the Profession thoughtful and sad; and how much the more must this anxiety be increased, when we come to consider the daily life such as Dr. Bernard led? The district of which he had the care, is one of the thickest inhabited of Cork, as it takes in all the centre of the city. Just let us for a moment imagine all the lanes in this district, and those full of houses, and each house again full of families, each family numbering on an average from six to eight human beings, and we are amazed to think how one individual can have accomplished the mass of work to be got through—it was done, done well, done conscientiously; but the doer is dead! We happened to be in the room of the Dispensary where he used to prescribe for the externs to-day, and as the Medical man who since his illness (only eight days) had taken his post, announced his death, there was a kind of solemn awe stole over the crowd that was grander than the grandest service ever intoned in the aisle of Westminster to departed genius, or the proudest monument ever reared to our greatest statesman. And now, as we are on the subject of Dispensaries, could not the committee, whom we believe sit fortnightly, relieve the Medical Dispensary officer from many of the petty annoyances that he is at present liable to? for instance, could not they provide a porter to keep some sort of order in the prescribing-rooms, and not let the number of people crowd in on the Medical officer all at once, thus hindering him from doing his duty with that ease and calmness that he would require when examining difficult cases? As we have visited these rooms, and seen what the Medical officers have to do, we beg of the committee to do the same;—stay with the Medical man as he prescribes; with the Apothecary as he dispenses,—and then, and not until then, will they have the slightest idea of the work gone through by those gentlemen, who, we are sorry to have to write it, many of the committee think little better than mere servants, and when it comes to £. s. d. with them, will vote for the smallest possible sum to support men who risk their lives to relieve their fellow-creatures from sickness, and rescue them from death.—*Cork Daily Reporter, July* 10.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the Comitia Majora, held on Saturday, July 12, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine and Midwifery, were duly admitted to practise Physic as Licentiates of the College :—

Messrs. Julius St. Thomas Clarke, Leicester; Edward Smith, 1, St. George's-place; William Lyons, M.D., Madras; William Horton Trevor Power, University College; Edward Livesay Dixon, Preston; Henry Marshall Rowland, Bootle; William Walls, Hindley, near Wigau; and William Partridge Mills, Ipswich.

MIDDLESEX HOSPITAL MEDICAL COLLEGE—The Distribution of Prizes took place on July 11, 1862, Captain the Honourable Francis Maude, R.N., in the chair.

Prizes and Certificates of Honour awarded to First Year's Students.

SUMMER SESSION, 1861.

First Prize—Mr. John Ablewhite Smith, Louth.
Second Prize—Mr. Alfred Brend, Bideford, Devon.

Certificates of Honour.

MATERIA MEDICA.
(Dr. H. Thompson.)
Mr. J. A. Smith.
Mr. A. Brend.
Mr. G. E. Pyle, Amesbury.
Mr. H. W. Freeman, Bideford.

BOTANY.
(Dr. T. Spencer Cobbold.)
Mr. J. Ablewhite Smith.
Mr. Alfred Brend.
Mr. George E. Pyle.
Mr. Henry William Freeman.

For Herbaria.
Mr. T. Lucas, Burwell, Cambridge.
Mr. E. Snell, Plymouth.
Mr. J. Fernie, Kimbolton.

For Botanical Dissections.
Mr. Ebenezer Snell.
Mr. Thomas Lucas.

PRACTICAL CHEMISTRY.
(Mr. Taylor and Mr. Heisch.)
Mr. J. A. Smith.
Mr. G. E. Pyle.
Mr. M. de G. Hurlestone, London.
Mr. A. Brend.
Eq. { Mr. A. Biek, Minehinhampton. / Mr. H. W. Freeman.

WINTER SESSION, 1861-62.

First Prize—Mr. Henry William Freeman, Bideford.
Second Prize—Eq. { Mr. George Clements, Brixham, Torbay. / Mr. Robert King, Moulton, Lincolnshire.

Certificates of Honour.

ANATOMY.
(Mr. Moore.)
Mr. H. W. Freeman.
Mr. Robert King.
Mr. G. Clements.
Mr. Alfred Biek.
Mr. H. Basan, London

PHYSIOLOGY.
(Mr. De Morgan.)
Mr. Henry William Freeman.
Mr. George Clements.
Mr. Robert King.
Mr. Alfred Biek.
Mr. C. E. H. Rogers, Westmeon, Hants.
Mr. E. Norton, Birmingham.

CHEMISTRY.
(Mr. Taylor and Mr. Heisch.)
Mr. H. Cribb, Bishops Stortford.
Mr. H. W. Freeman.
Mr. H. P. Chandler, London.
Mr. Robert King.
Mr. G. Clements.
Mr. E. Norton.

Prizes and Certificates of Honour awarded to Second Year's Students.

SUMMER SESSION, 1861.

First Prize—Mr. Edward Morgan, Nantybenglog.
Second Prize—Mr. John Wallis Mason, London.

Certificates of Honour.

MIDWIFERY.
(Dr. Priestley.)
Mr. Edward Morgan.
Mr. John Wallis Mason.
Mr. William D. Spanton.
Mr. C. P. Langford, Hingham.
Mr. Richard Purnell, Wells.
Mr. L. F. Osbaldestone, Hatfield.
Mr. Woodfield Eagles, Aylesbury.

FORENSIC MEDICINE.
(Mr. Henry and Dr. Greenhow.)
Mr. John Wallis Mason.
Mr. William D. Spanton.
Mr. Edward Morgan.
Mr. Charles Phineas Langford.
Mr. Lyttleton F. Osbaldestone.

WINTER SESSION, 1861-62.

First Prize—Mr. John Ablewhite Smith.
Second Prize—Mr. Thomas Lucas.

Certificates of Honour.

MEDICINE.
(Dr. Stewart and Dr. Goodfellow.)
Mr. J. A. Smith.
Mr. G. E. Pyle.
Mr. T. Lucas.
Mr. A. Brend.
Mr. Albert Weaving, Oxford

SURGERY.
(Mr. Shaw.)
Mr. J. A. Smith.
Mr. T. Lucas.
Mr. G. E. Pyle.
Mr. A. Brend.
Mr. F. H. Alderson, Ipswich.
Mr. W. G. Curgenven, Plymouth.
Mr. A. Weaving.
Mr. C. J. Pyle, Amesbury.

ANATOMY.
(Mr. Moore.)
Mr. Thomas Lucas.
Mr. J. Ablewhite Smith.
Mr. Alfred Brend.
Mr. William G. Curgenven.
Mr. John Ring, Wincanton, Somerset.
Mr. George E. Pyle.
Mr. Albert Weaving.
Mr. James S. Turner, London.
Eq. { Mr. Ebenezer Snell. / Mr. A. Waymouth, Stoke, Devonport.
Mr. Fred. H. Alderson.
Mr. Charles J. Pyle.

PHYSIOLOGY.
(Mr. De Morgan.)
Mr. J. Ablewhite Smith.
Mr. Thomas Lucas.
Mr. Albert Weaving.
Mr. Alfred Brend.
Mr. George E. Pyle.
Mr. Fred. H. Alderson.
Mr. Albert Waymouth.
Mr. James Smith Turner.
Mr. William Grafton Curgenven.

PATHOLOGY.
(Mr. Sibley and Dr. Murchison.)
Mr. J. Ablewhite Smith.
Mr. Albert Weaving.
Mr. Thomas Lucas.
Mr. Alfred Brend.
Mr. George E. Pyle.
Mr. Charles J. Pyle.

Prize offered by the Medical Society for the best Paper of the Session.

Mr. John Ablewhite Smith.

Prizes awarded to Third Year's Students.

CLAYTON PRIZE FOR COMPARATIVE ANATOMY—
Prize—Mr. William Montagu Hall, Welby, Newark.
Certificate—Mr. James Edward Bennett, Devonport.

PRIZE IN CLINICAL MEDICINE—
First Prize—Mr. Charles Wightwick Pitt, Malmesbury.
Second Prize—Mr. Lyttleton F. Osbaldestone.

PRIZE IN CLINICAL SURGERY—
First Prize—Mr. Woodfield Eagles.
Second Prize—Mr. Charles Wightwick Pitt.

GOVERNORS' PRIZE (for the best Reports in both Clinical Medicine and Clinical Surgery)—Mr. William Dunnett Spanton, Loughborough.

Honorary Certificates of General Good Conduct and Diligence.

Mr. Henry C. Bury.
Mr. Philip A. Cornish.
Mr. Woodfield Eagles.
Mr. M. de G. Hurlestone.
Mr. Thomas Joyce.
Mr. Charles P. Langford.
Mr. William E. Lee.
Mr. John W. Mason.
Mr. Edward Morgan.
Mr. L. F. Osbaldestoue.
Mr. Charles W. Pitt.
Mr. Richard Purnell.
Mr. S. Rutherford.
Mr. Wm. D. Spanton.
Mr. W. M. H. Welby.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 10, 1862 :—

John Foster, Bradford; Charles Noyce Kernot, West Cowes, Isle of Wight; William Walls, Hindley, Lancashire; John James, Cardigan; Sloane Michell, Minehead, Somerset; William Bazeley, 5, St. Aubyn-street, Devonport; Richard George White, Melton Mowbray, Leicester; Charles Ebenezer Harle, Islington; John Roberts, Kidwell, Carmarthenshire; John Hamer Oliver, Llandysilio, Montgomeryshire.

The following gentlemen also on the same day passed their First Examination :—

Horatio Bate Goold, Wm. Adolphus Frederick Caudle, and Matthew Leach, King's College; Henry Addison Hobbs and Thomas Griffiths, St. Thomas's Hospital; Thomas Carter, Guy's Hospital; Charles Spurway, St. Bartholomew's Hospital.

APPOINTMENTS.

BARDSLEY.—Sir James Lomax Bardsley, Knight, M.D. Univ. Edin., F.R.C.P. Lond., has been appointed Deputy-Lieutenant for the County Palatine of Lancaster.

BARETTI.—Thomas George L'Enardi Baretti, M.R.C.P. Eng., L.S.A. Lond., has been elected Surgeon to the Free Institution for Diseases peculiar to Women and Children, St. James's-square, Bristol.

BRYAN.—John Morgan Bryan, M.D. Univ. King's. Coll. Aberd., F.R.C.S. Eng., L.S.A. Lond., has been re-elected Treasurer and one of the Joint-Secretaries of the South Midland Branch of the British Medical Association.

CLOUGH.—Joseph Clough, L.R.C.P. Edin., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the newly-formed district of Woodhouse, in the Huddersfield Union, Yorkshire, comprising Bradley, Deighton, Sheepridge, and Concliffe.

DAY.—Henry Day, M.D. St. And., Ext. L.R.C.P. Lond. (exam.), M.R.C.S. Eng., L.S.A. Lond., has been elected one of the Physicians to the Staffordshire General Infirmary, Stafford.

DUNCAN.—Peter Martiu Duncan, M.B. Univ. Lond., M.R.C.S. Eng., has been appointed Consulting-Surgeon to the Essex Hall Asylum for Idiots.

GOLDSMITH.—George Pocock Goldsmith, M.R.C.S. Eug., L.S.A. Lond, has been elected Joint-Secretary (with Dr. Bryan) of the South Midland Branch of the British Medical Association, *vice* Robert Charles Hurst, M.R.C.S. Eng., L.S.A. Lond., deceased.

GREENWOOD.—Frederick Greenwood, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Huddersfield and Upper Abrigg Infirmary, *vice* William Greenwood, F.R.C.S. Eng., L.S.A. Lond., resigned.

HUGHES.—Hugh Speneer Hughes, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Walsham-le-Willows District (No. 6) of the Stow Union, Suffolk, *vice* Walton Kent, L.S.A. Lond., deceased.

IRELAND.—John Ireland, M.R.C.S. Eng., L.S.A. Lond., has been elected Vaccinator for the Kingswinford District, Stourbridge Union, Worcestershire.

LAW.—Robert Law, M.D. Univ. Trin. Coll. Dub., Hon. F.Q.C.P. Irel., has been appointed Professor of the Institutes of Medicine at the School of Medicine and Surgery, Trinity College, Dublin, for a further term of seven years.

LYNES.—Edward Lynes, M.D. Univ. St. And., M.R.C.S. Eng., and L.M., L.S.A. Lond., has been appointed Surgeon to the Coventry and Warwickshire Hospital, *vice* John Walter Bury, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., resigned.

MARTIN.—Timothy Henry Martin, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the Worth District of the East Grinstead Union, Sussex, *vice* Thomas Smith, M.R.C.S. Eng., L.S.A. Loud., deceased.

PALEY.—William Paley, M.D. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., is President-elect of the South Midland Branch of the British Medical Association.

PEARCE.—Francis Drake Pearce, M.R.C.S. Eng., L.S.A. Lond., has been reappointed Medical Officer and Public Vaccinator for the Charleton District of the Kingsbridge Union, Devonshire.

PHILLIPS.—Daniel Weld Phillips, M.R.C.S. Eng., L.S.A. Lond., has been appointed Vaccinator for the Halesowen District of the Stourbridge Union, Worcestershire, *vice* Charles William Milnes Bloxham, M.R.C.S. Eng., L.S.A. Loud., resigned.

POWELL.—Robert Hutchinson Powell, M.D. Univ. Lond., M.R.C.P. Lond., M.R.C.S. Eng., has been elected one of the Physicians to the County Infirmary, Stafford.

WHITTLE.—Ewing Whittle, M.D. Univ. Lond. M.R.I.A., M.R.C.S. Eng., has been appointed Lecturer on Medical Jurisprudence at the Liverpool Royal Infirmary School of Medicine, *vice* Francis Ayrton, M.D. St. And., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., resigned.

DEATHS.

BEAUFOY.—June 21, at Portsea, Hants, Charles Beaufoy, late Assistant-Surgeon, H. M. 25th Regiment of Foot.

CODRINGTON.—May 3, from a fall from his horse, at Braidwood, New South Wales, George Frederick Codrington, M.D., aged 50.

DAVIES.—July 8, Richard Wright Davies, of Great Brooke-street, Birmingham, M.R.C.S. Eng., L.S.A. Lond., aged 39.

EVANS.—July 9, Richard David Jones Evans, of Hertford, M.D. Mar. Coll Univ. Aberd., F.R.C.S. Eng. (Hon.), L.S.A. Lond., Senior Surgeon to the Hertford General Infirmary.

FENOULHET.—June 3, of valvular disease of the heart, Andrew Chadwick Fenoulhet, M.R.C.S. and L.S.A., Medical Officer of the Wyke Regis District, Dorset, aged 42.

LEECH.—July 7, at Carlton-terrace, Rathmines, Dublin, Robert Leech, M.D., aged 67.

LUDLOW.—April 21, Henry Christopher Ludlow, M.D., of No. 14, Chapel-place, Vere-street,

O'TOOLE.—June 19, on the homeward passage from China, William Henry O'Toole, M.R.C.S. Eng., L.A.H. Dub., Assistant-Surgeon, R N. (Dec. 11, 1860), aged 24.

SEMPLE.—At Grove House, Castlebar, Co. Mayo, Charles William Semple, A.B. Trin. Coll. Dub., L.R.C.S. Irel., L.M. Rotunda Lying-in Hospital, Staff Assistant-Surgeon, Army, aged 26.

SMITH.—June 25, at Knighton, Radnorshire, Frederic E. Smith, Surgeon, aged 51.

LONDON GAZETTE.

There are no Medical appointments in the *London Gazette* of July 11, 1862.

July 15.

11TH LINCOLNSHIRE RIFLE VOLUNTEERS.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Assistant-Surgeon Odling.

Her Majesty has been graciously pleased to accept the resignation of the commission held by Surgeon Morris in the late 3rd Administrative Battalion of Lincolnshire Rifle Volunteers.

2ND ADMINISTRATIVE BATTALION OF LINCOLNSHIRE RIFLE VOLUNTEERS.—Edwin Morris, gentleman, to be Assistant-Surgeon, dated July 11, 1862.

The following appointment is substituted for that which appeared in the *Gazette* of the 27th ult. :—

1ST PEMBROKESHIRE RIFLE VOLUNTEER CORPS.—Richard Hoare Byers, Esq., to be Honorary Assistant-Surgeon ; dated July 11, 1862.

The following appointment is substituted for that which appeared in the *Gazette* of the 4th inst. :—

12TH SURREY RIFLE VOLUNTEER CORPS.—Edwin Cock, Esq., to be Honorary Assistant-Surgeon ; dated July 1, 1862.

IN the absence of Wm. Lawrence, Esq., F.R.S., Deputy Inspector-General T. Longmore, Professor of Military Surgery at the Army Medical School, received the Jury Awards from H.R.H. the Duke of Cambridge, as Chairman of the Committee of Class 17, Surgical Instruments, at the State ceremonial of the declaration of prizes in the International Exhibition on the 11th inst.

OVARIOTOMY IN FRANCE.—The success of M. Nélaton's case of ovariotomy has called forth a claimant for the priority of the performance of the operation, as far as relates to France, in the person of M. Vaullegeard, a country Practitioner at Condé-sur-Noivcau, who performed it with success in 1847.

POISONING BY ARSENIC.—Ten persons were accidentally poisoned by arsenic in a farmhouse at Ashby St. Legers, a village on the borders of Northamptonshire, on the 12th inst. A portion of the arsenic in use for the purpose of destroying vermin in sheep was accidentally mixed with a batter pudding. Of those who partook of it one is dead, another is in great danger, and eight others are more or less affected.

THE ALLEGED WHOLESALE POISONINGS.—The woman Constance Wilson, *alias* Catherine Taylor, has been again remanded, to allow Professor Taylor time to complete his analysis of the viscera of Mrs. Atkinson. Dr. Taylor is also employed in examining portions of the body of Mr. Peter Mawer, with whom the prisoner lived as housekeeper, and who died under suspicious circumstances in October, 1854. Another case, that of Mrs. Soames, with whom the prisoner lived, and who died in 1856, is also undergoing investigation.

CONVERSAZIONE AT ST. BARTHOLOMEW'S.—The authorities at the most ancient metropolitan seat of Medical science gave a very successful reception on the evening of Friday, the 11th inst. An assemblage of attraction,—feminine and floral, scientific and artistic,—gave the great hall a most brilliant appearance. Downstairs, Percival Pott, Abernethy, and other St. Bartholomew worthies looked down approvingly from their frames on the hospitality exercised by their successors. The quadrangle was illuminated by the electric light, which, thrown on the central fountain, produced a striking and beautiful effect. A large number of foreign and native *savans* were amongst the guests, and it need scarcely be added that many an old Bartholomew's man revived early memories beneath the roof of his Alma Mater.

BRITISH MUSEUM.—Albert Günther, Esq., M.D., Foreign Member of the Zoological Society of London, etc., has been appointed Assistant (first class) in the Zoological Department, British Museum, to fill the vacancy caused by the retirement of Adam White, Esq., F.L.S. Dr. Günther is the author of a "Catalogue of Colubrine Snakes;" a "Catalogue of Batrachia Salientia;" and a "Catalogue of Acanthopterygian Fishes," published under the authority of the Trustees of the British Museum ; of various works on German Ichthyology (*Die Fische des Neckars, untersucht und beschrieben*, etc. 8vo. Stuttgardt. 1853.)

THE ITALIAN SCIENTIFIC CONGRESS.—The Italian Congresses, which have been suppressed through the political disturbances of the last fourteen years, are now about to resume their sittings with renewed vigour, and under the proud *prestige* of an important nationality. The first meeting is to be held at Sienna, from the 14th to the 27th of September, under the Presidency of Professor Puccinotti. The Congress will consist of two principal sections,—that of the physical, mathematic, and natural sciences, and that of the moral and social sciences.

MUSEUM D'HISTOIRE NATURELLE DE PARIS.—On the occasion of the death of M. Isidore Geoffrey St. Hilaire, M. Milne-Edwards has been promoted from the chair of Crustacea and Insects to that of Mammalia and Birds, and M. Blanchard has been chosen to replace him in the first of these chairs.

DEATH FROM SWALLOWING INDIGESTIBLE FOOD.—An inquest has lately been held at Mile-end on the body of a little girl, aged 2 years, who appears to have been killed by eating a quantity of cold beef-steak pudding. Immediately after taking it, severe symptoms set in. A Practitioner saw the child two or three hours after, and found her presenting symptoms of poisoning. Remedies were used, but without avail, and death took place in a few hours. The post-mortem examination showed the food in question to be completely undigested, and lying in a mass in the stomach, where it had acted as a violent poison, setting up acute gastritis. The Coroner remarked on the singular nature of the case, and the jury returned a verdict in accordance with the Medical testimony.

THE HENDON MURDER.—At the Central Criminal Court, on July 9, James Lawrence, a labourer, aged 29, was found guilty of murdering Ann Sarah Cox. The prisoner was engaged to be married to the deceased, but had entertained a feeling of jealousy until it had become a dominant idea, and finally had terminated in actual delusion. The evidence clearly shows that the man was a monomaniac. He believed that his sweetheart had allowed herself to be debauched by a fellow-lodger in the house, and that she was married to him. From the evidence there does not appear to have been any truth in either supposition. The jury added to their verdict a strong recommendation to mercy "on the ground that, although they believed that at the time he was in a state of mind to be responsible for his acts, still at the time of committing the offence he was labouring under very great excitement." The man had always previously borne an excellent character. We do not agree with Mr. Justice Crompton that the verdict was a very proper one. If the man was of unsound mind, which we think is proved by the evidence, the verdict should have been "Not guilty on the ground of insanity." If he were not mad, no amount of criminal excitement would justify a recommendation to mercy. There was no injury or provocation offered to the prisoner, and if he, a sane man, allowed his destructive passions to impel him to the commission of a murder, he must take the consequence. If he were insane, it is entirely a different case.—A reprieve has been since received, and it is understood that the sentence will be commuted to penal servitude for life. The case exactly parallels that of Clark, the Newcastle convict. On the theory of insanity, penal servitude for life is manifest injustice ; on the theory of sanity, it is a mitigation of punishment which cannot be defended. No middle view can be sustained.

QUESTION OF MEDICAL RESPONSIBILITY.—An interesting case is about to be heard on appeal to the Paris Court of Cassation. It was first tried at Rouen last year, when an *officier de sante*, named Lodieu, was condemned in damages of 4000 francs for having occasioned the loss of the use of the hand of a patient by his careless treatment. The patient was a lad, who had broken one of the bones of the forearm, and the charge against M. Lodieu was, that he had, by his excessively tight bandaging, caused consecutive gangrene of the limb. A Practitioner called in on the third day recommended the loosening of the bandage, which Lodieu immediately performed, but it was too late. Three experts named by the Tribunal recognised the fact of too great constriction having been made, although they admitted that as pain was not produced M. Lodieu might have been led into error. They stated also that the mortification might be due either to the gravity of the fracture or to the excess of the compression. MM. Guersart and Velpeau, of Paris, having had the history of the case laid before them, gave their opinions that the loss of the arm was due to the treatment pursued; while MM. Tardieu, Jobert, and Duchaussoy declared that M. Lodieu's treatment was irreproachable. It is evident that Doctors are in the habit of differing on both sides of the Channel! However, the Tribunal condemned Lodieu to pay 4000 francs and the expenses. Upon the recommendation of M. Paul Andral, the celebrated advocate in Medical cases, an appeal has been taken before the Court of Cassation,—a tribunal which decides not on the facts, but the technicalities of the case,—in hopes of a new trial being ordered. The chief ground of the appeal is, that if the gangrene were produced by the constriction of the bandage, such constriction was not due to ignorance or inattention (the friends, indeed, having at once called the Doctor's attention to it), but to a "scientific error" on the part of the Practitioner, of which the Tribunal has no right to judge. We shall record the result of the appeal.

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 12, 1862.

BIRTHS.

Births of Boys, 882; Girls, 825; Total, 1707.
Average of 10 corresponding weeks, 1852-61, 1588·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	561	504	1065
Average of the ten years 1852-61	543·9	505·6	1049·5
Average corrected to increased population..	..	..	1155
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	4	8	3	4	8	12
North ..	618,210	1	4	6	..	4	12	3
Central ..	378,058	..	4	7	1	6	7	6
East	571,158	1	22	11	4	10	13	9
South ..	773,175	1	4	16	2	10	11	10
Total.. ..	2,803,989	3	38	48	10	34	51	39

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·600 in.
Mean temperature	58·2
Highest point of thermometer	75·5
Lowest point of thermometer	44·7
Mean dew-point temperature	53·1
General direction of wind	S.W.
Whole amount of rain in the week	0·73 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—We do not think that any preserved meats are to be selected from which the juice of the flesh or beef-tea has been first extracted by any process whatever. Any such substance ought to have the fibrinous *plus* the sapid liquid ingredients.

Mr. Ussher is thanked for his poem. It is scarcely fitted for the columns of a Medical Journal.

We have received a copy of Mr. Roberton's paper on the "Laws of Nature's Ventilation, and their application in the construction of Dwellings, Schools, and Public Buildings." We only wish it were made larger and fuller, and widely distributed.

In the resignation of Mr. Bowman, followed by that of Dr. Budd, the King's College Medical School has sustained losses which it can ill afford. Mr. Bowman's high personal character and position, his scientific repute, and extensive practice, and Dr. Budd's character for academic attainments, and for the acute analysis and careful treatment of disease, made each of them a source of strength and reputation. The worst of it is that it seems to be no part of the policy of the authorities at King's College to encourage rising Physicians and Surgeons. The offices of Assistant-Physician and Surgeon are tenable for a limited term only, and some of the best and most ambitious workers have been by this regulation diverted to other Schools.

We have received several communications from Dublin with regard to the extent of accommodation afforded in that city for patients suffering from eye disease, whether in special or general Hospitals. We find in the list published in the *Medical Directory* the names of St. Mark's Ophthalmic and Aural Hospital, Lincoln-place, established 1844; and the National Eye Infirmary and General Dispensary, established 1814, 12, Cuffe-street. We also find it noticed that the City of Dublin Hospital has a separate ward for diseases of the eye, and in all the general Hospitals these affections are attended to. A man of genius and activity, if he has not got an Hospital to his mind, will found one. Dr. Wilde's late lecture was purely a scientific one, and we are sure he would not intentionally ignore any field of ophthalmic practice.

THE DEATH-RATE OF ENGLAND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The supposed error of mine to which you refer in one of my letters is a typographical one. My statement was eighteen instead of eight, and that as the lowest mortality in the more healthy parts of England. I have carefully examined the excellent Annual Reports of your Registrar-General for the twenty-three years since it has appeared, as soon as it could be procured, and have always known that the annual mortality of England exceeded twenty in a thousand.

I am, &c. CHARLES A. LEE, M.D.

7, King-street, Cheapside, July 11.

THE HOSPITAL FOR STONE DINNER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall be much obliged if, in your Journal, you will allow me to contradict the report of my having been a steward of the recent dinner of the Hospital for Stone, etc. I find it is commonly believed, in consequence of my name having appeared in print. I was asked to be a steward, and I declined. When, after this, my name was advertised, I wrote to the Secretary and protested, and some cards for the dinner which I received I returned to him.

I am, &c. J. F. STREATFEILD.

15, Upper Brook-street, W., July 16.

OPHTHALMIC HOSPITALS IN DUBLIN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have just seen in your Journal of the 5th inst., a letter headed "Ophthalmic Hospitals in Dublin," from the pen of Mr. Hildige, in which the following sentence occurs:—"There are beds at the Meath Hospital, lately under the care of Mr. Smyly, and now about to be transferred to his son, Mr. P. Smyly." I beg leave to say that the beds in that Hospital for cases of diseases of the eye, are not, nor ever were, more under the care of one Surgeon of the Institution than another.

I am, &c.

GEO. H. PORTER, Surgeon to the Meath Hospital.

RUPTURE OF THE PERINEUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the report of the post-mortem examination of Mrs. Phillips, in your Number of July 5, it is stated that "the perineum was badly torn." This is an accident about which I suspect the common practice savours in the least possible degree of hypocrisy. Here a patient is attended by eminent Practitioners; the perineum is torn; did they use "support?" if so, of what sort? Did they consider the accident a serious one? if so, did they inform the patient's friends?

I am, &c. OBSTETRICANS.

SPECKS ON THE CORNEA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Mr. John Wilson asks the readers of the *Medical Times and Gazette* to suggest a treatment for the above affection. I was for some months House-Surgeon to a Metropolitan Ophthalmic Hospital, and during that time saw very many cases of that complaint. A lotion was generally used of the bichloride of mercury (one grain to the ounce of distilled water), a few drops to be inserted into the eye once or twice daily. The vapour of the bisulphide of carbon is an excellent remedy; it may be procured in stoppered bottles, the tops of which are like an eye-bath: this is applied to the affected eye every day until it produces a smarting sensation. Great care is necessary to prevent any of the liquid going into the eye; a very good way to avoid this accident is to place a piece of cotton-wool in the bottle, and then saturate it with the bisulphide of carbon. This last remedy is a very excellent one, and if persevered in for some weeks or months is generally successful. The above preparation and bottle may be purchased at Hooper's, in Pall-mall. The internal use of the iodide of potassium during the local treatment will expedite the cure.

I am, &c.

2, St. Martin's-place, July 8. JOHN J. SKEGG.

An Otoscope.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If you insert a speculum tube into the external auditory meatus, and placing the flame of a lamp close to the ear, the room being completely darkened, take an ordinary ophthalmoscope, and thus illuminate the fundus of the passage; looking through the hole in the mirror of the ophthalmoscope, a very complete view of the membranum tympani is obtained. By gradually withdrawing the speculum, the entire range of the meatus auditorius externus is successively brought under observation. It is superfluous for me to dilate on the value of such a means of diagnosis of the diseases of the ear. The laryngoscope is, after all, but a happy application of the ophthalmoscope. The otoscope I propose has no further claims to originality. I understand Mr. Toynbee and the late Mr. Avery have used a method of examining the ear similar to that which I propose; but its great utility assures me that it cannot be too widely known.

I am, &c.

July 12. J. Zachariah Laurence.

Murder of a Union Medical Officer, and Mutilation of the Body.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your readers are already acquainted with the terrible death of Mr. Adam Stapleton Puckett, Medical Officer of the Weymouth Union, by an insane pauper. I will not, therefore, enter into the details of this horrible murder and barbarous mutilation, but at once beg you will permit me, through the medium of your valuable Journal, to appeal to the benevolence of the public and Medical Profession on behalf of the widow of the deceased, who is left nearly destitute.

I have known the late Mr. Puckett for upwards of twenty years, he having been the assistant of my predecessor, I can therefore bear testimony to the fact, that he was a hard-working, kind-hearted man,—an Apothecary of the old school,—and as attentive to the poor as an enormous district, or rather two combined, which extended fifteen miles across the country, would permit. Why he had such a district I must leave the Poor-law Board and Board of Guardians to answer; that it was cruel to the poor there can be no question, as some of his patients had to walk nine miles for a bottle of medicine and as many home again, making Medical relief a mere mockery; but I trust the Select Committee of the House of Commons on Poor Relief, before whom evidence on this subject has already been laid, will recommend to Parliament a material change in the Medical arrangements for the relief of the poor.

It was given in evidence at the inquest that poor Puckett only visited the maniac twice a-week, and in reality was unaware of his dangerous state, which more frequent visits would have revealed to him; but his enormous district prevented him doing more, as his salary of £116 per annum, including extra Medical fees, miserable for such a district, allowed him to keep but one horse, for out of that salary he had not only to pay for the keep of that horse, but had to find drugs for the poor, to maintain himself, his wife, and one daughter to look after the house, her mother having been for the last few years incapable of attending to the household duties.

How poor Puckett, out of so miserable a pittance, managed to do all this, is a mystery, as I know, for a certainty, that during the last six months his entire booking from private practice has been only twenty-three pounds; and yesterday I was assured by a member of his family that at the time of his death he had but twenty-one shillings in his possession, besides the few shillings which the maniac took from his pocket and threw into the river; the widow is therefore left nearly destitute—I say "nearly," as there is a small insurance on his life, which I was instrumental in his effecting, but I find that is heavily mortgaged to meet incumbrances occasioned by sickness, and the probability is that the rest will be swallowed up in funeral expenses, and the payment of debts.

After this brief recital, I feel I shall not appeal in vain to the generosity of the public for a widow whose husband was so barbarously murdered and horribly mutilated. I have opened an account, "The Puckett Fund," at Messrs. Williams' Bank, Weymouth, and at Messrs. Eliot's Bank, Weymouth, where subscriptions may be forwarded, or they may be sent to me, and I will act as Treasurer to the Fund until means shall be devised to place the money in the hands of trustees for the benefit of the widow, and, if there be sufficient, such members of the family of the deceased as the trustees may deem it desirable to assist. Mr. Puckett left one son and three daughters, all of whom are incapable of assisting their mother.

I am, &c. Richard Griffin, J.P.

12, Royal Terrace, Weymouth, July 12.

The following are extracts from a letter from Dr. Moriarty, which has been sent us for publication:—

"As I am upon the subject of Rome, allow me to send to you a few details relative to the organisation of Medicine in that part of the world. In the first place, Pharmacy is wisely separated from the practice of Medicine and Surgery, and made a distinct department of the Profession. The division of Medicine and Surgery is also strictly maintained, both in education and practice, and affects the social status of Practitioners. There are six years' study required for a Doctor,—namely, four years at the University or Collegium Romanum, and two at Hospital, where the places of internes and externes, as well as the professorships, are regulated by the liberal and enlightened system of *concours*, as in Paris. Education at the University is gratis. However, a small sum is paid for the diploma, and if any difficulty is experienced about it it is not demanded. For the Surgeon only three years are required at the University, and two at Hospital. The Doctor's examination consists of a dissertation, a verbal examination, and a clinical examination in Hospital; and that of the Surgeon, of a written dissertation, verbal examination, a demonstration, preparation, and Surgical operation upon the dead subject. Barbers are also examined in small Surgery. The *sage femme* is also obliged to give proof of her competency; and I cannot help thinking that it would have resounded more to their dignity had our College of Surgeons confined their special examination in Midwifery to the fair sex.

"When walking through Rome, even in the Corso, one thing astonishes the eye by its absence, and that is, the exhibition of those monster blue and red bottles, serpents, and tape-worms, with which we are so familiar at home. The word 'Farmacia' is simply written over the door of the Apothecary, and that is the only mark which distinguishes his from any other private house. Here the Medical men give consultations at a fixed hour every day, at a very small charge,—such as a franc; and here communications are generally left for them, and not at their own dwelling. Our Roman *confrères* are modest, gentlemanly, and communicative. They appear to lead a sort of vagrant life. When you inquire residence, you obtain, in all probability, the address of a particular Apothecary, and I recollect distinctly the surprise of a young Praetitioner when I intimated an intention of calling upon him at his own house. Professional remuneration is generally made by yearly subscriptions, well or ill. A couple of hundred francs a-year is paid by a Prince for attendance upon himself, family, and suite. When a vacancy occurs in a country commune for a Doctor, he is engaged at so much a-year, ranging from twenty to forty pounds. A meeting was not long ago held in a commune for the purpose of paying a tribute of gratitude to the skill, zeal, and humanity of a Doctor at the end of twenty years' practice. The proceedings were published, and after devoting a column to superlatives in praise of this worthy man, the sum awarded was two pounds ten shillings. But we must not forget that material wants are easily supplied in this sunny clime,—fountain water, vegetables, and fruit being the general régime. One would imagine that man, living under a cloudless sky, ever gazing upon charming prospects, and endowed by Nature with a highly-developed artistic and musical genius, needs less for his bodily support.

"There is no Medical Association, nor is there one Medical Journal printed at Rome, it not being permitted, I was informed, through apprehension of political combination.

"In the Medical Hôpital de St. Esprit, every facility is allowed for instruction, and the students are abundantly supplied with subjects. I found old Bayer the class-book in the dissecting-room, and, strange to say, the Medical classic in vogue is the Plessimètrime of Piorry, which does not appear to be much relished in the land of his nativity. The doctrine of Broussais, long since abandoned in his own country, is, I need not tell you, there, as all over Italy, in constant operation, and it is to be hoped that the observations elicited in England and in France by Count Cavour's death, may have some effect in checking that destructive system of bleeding. I was shown in the Pharmaceutical laboratory of the Hospital a large mill for powdering Cinchona bark, which is immediately explained by the proximity of the marshes. The *fleau* of the country is ague. I discovered the prevalence of a curious custom in the dead-house. A chain was attached to the wrist of each corpse, which communicated with a bell, which the slightest movement might ring in case of suspended animation. There is but little opportunity for studying female diseases, and although there is a syphilitic ward for women in the Surgical Hospital of St. Jaques, there are only two students allowed to accompany the Surgeon at his visit; and this privilege is only to be gained by a successful *concours*, or competitive examination. It is not, therefore, surprising to find many ignorant of this branch of study, and salivating their patients for gonorrhœa as in a case of indurated chancre.

"One word before I conclude, with regard to late works upon Rome. Some eulogise everything, and others abuse everything. We find Edmund About, in "La Question Romaine," so witty and sarcastic, mentioning that they put fig-leaves upon the bodies for dissection at the Hôpital de St. Esprit, and that an Hospital Surgeon told him he had never seen the female breast. In a recent work by Edward Discy, "Rome in 1860," reviewed by the *Spectator* of March 23, 1861, we are informed of ill-paved streets, and no light of any kind at night, with other gross inaccuracies. I was there in 1860, and found the streets as well paved as those of London or Paris, and lighted with gas. It is well known that Mr. Shepherd, an Englishman, is at the head of the gas establishment there. Really, when people undertake to enlighten the public, they should take more trouble to avoid falling into such misrepresentations. Persons are scarcely justified in comparing Rome to other European capitals. It is a place, in fact, where religion antagonises and predominates over material life, and in visiting the Eternal City we should not have Manchester or Lyons before our eyes as standards of comparison. We should not examine it in a purely business point of view; and whether it can at any time be converted into the industrial capital of the Kingdom of Italy, appears to me very doubtful. "I am, &c.

"Dieppe." "Dr. Moriarty."

COMMUNICATIONS have been received from—

Mr. Griffin; Mr. H. Ussher; Dr. Edwin Lee; Dr. Charles Lee; Dr. Althaus; Mr. J. Zachariah Laurence; Mr. G. H. Porter; A Constant Reader; Mr. C. C. Blake; Mr. A. Wiglesworth; Mr. J. N. Radcliffe; Dr. R. D. Thomson; Dr. Grattan Guinness; Professor Czermak; Dr. Paterson; Obstetricans; Forewarned.

APPOINTMENTS FOR THE WEEK.

July 19. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

21. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

22. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

24. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

25. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—Hare-Lip; Cleft Palate; Lithotrity; Excision of Knee.

By Mr. Wood—Radical Cure of Hernia (2 cases).

ORIGINAL LECTURES.

CLINICAL REMARKS ON SEVEN CASES OF OVARIOTOMY,

Made at the Samaritan Hospital, Monday, June 14, 1862.

By T. SPENCER WELLS, F.R.C.S.

GENTLEMEN,—The young girl whom you now see looking so well and happy is hardly to be recognised as the same person from whose abdomen some of you saw me remove, only last Monday, an ovarian tumour which weighed more than forty pounds. A week ago she was a pale, emaciated girl, with the anxious suffering expression, the compressed elongated lips, the depressed angles of the mouth, the deep curved wrinkles around them, the widely-opened sharply-defined nostrils, the prominent cheek-bones, the sunken eye, the furrowed forehead, so often seen in the subjects of ovarian disease,—pointing not only to such a loss of fat as leaves the bones and muscles almost as perceptible as if they had been dissected, but also to something more—to the heavy weight the patient has to carry, and to carry in a situation impeding respiration, and preventing free action of the diaphragm; for the tumour encroaches on the thoracic cavity, displaces both lungs and heart, and interferes with their functions. Now, all this morbid physiognomy has disappeared. It disappeared, indeed, a few hours after the removal of the tumour. Even a casual observer would then have seen that the girl had been relieved of a great load; and since then, day by day, as she has had to speak thankfully of quiet nights, of unwonted freedom of respiration, of absence of pain, and of returning appetite, so have we seen the colour return to her lips and cheeks, the eye brighten, and the furrows and wrinkles of premature emaciation begin to disappear, as the body has begun again to be nourished, since the drain upon the system caused by the rapid growth of the tumour has been stopped. At first, the sudden removal of such a strain seemed to be almost too much for the system; it seemed as if it were difficult for heart and lungs to play with even balance under so much lighter a task,—the pulse was a little hurried, the face flushed, the skin rather hot. But soon we had a free perspiration, and all went well. Just at this time I was a little amused by the different views taken of the case at the same time by two worthy friends of mine. Each observed the same symptoms, but interpreted them very differently. One, more at home in the dissecting-room and the dead-house than at the bedside, began to speak ominously of peritonitis, to suggest leeches with calomel and opium, and seemed surprised at my being content to let what I thought well alone. My other friend, one whose life has been passed in watching and treating disease—not merely in examining and collecting the fragments of the wreck after the storm has left it shattered on the shore, but in noting the warnings of the coming tempest, and in learning how to trim sail, to bear up or lay to, and what course to steer to reach a safe anchorage,—this true pathologist saw nothing to alarm him in the quickened pulse, the warm skin, or the flushed face; he looked quite delighted, and exclaimed, "*What nice reaction!*" He exactly expressed my own thoughts, and two small opiates given during the night after the operation to quiet pain, have been the only medicines of any kind which this patient has taken.

Last Monday I made some remarks upon other cases of ovariotomy which we have had here since the beginning of the year. (a) The case which followed that of which I spoke last was a very remarkable one, especially interesting as to diagnosis. The patient was 35 years of age. She had been married four years, and had been quite well until May, 1861. About this time the catamenia became irregular, and the abdomen began to increase in size. Pregnancy was suspected, but she went into St. Bartholomew's Hospital early last January, and remained there a week, under Dr. Greenhalgh, who gave a very decided opinion that she was suffering from ovarian disease. Others, however, having expressed a different opinion, she called on me on January 30. I found an abdominal tumour extending from the pubes to half way between the umbilicus and ensiform cartilage, reaching low down into the right flank, but on the left side the hand could be passed down between the tumour and the ilium. The tumour felt solid. I could detect no fluctuation either in or around it. It did not adhere to the parietes, and it was slightly movable from side to side. The sound of the aorta could be heard nearly all over it. Low down in the left flank there was an indistinct blowing sound. Nothing like the sound of the fœtal heart could be heard. A few papillæ were developed around the mammary areolæ, which were dark. On examining by the vagina I did not wonder at the suspicion of pregnancy, for the tumour felt exactly like the head of a child just above the brim of the pelvis, and on pressing it, it receded and returned; although this *ballottement* was not very well marked. On moving the tumour in the abdomen the movements of the tumour in the pelvis were felt to correspond in all directions, and the cervix uteri did not move with the tumour. The cervix was far back, large and soft, and the os seemed to be closed, so that I did not think it right to use the sound, especially as there were no urgent symptoms. I told the patient that I was disposed to agree with Dr. Greenhalgh, and believed that the tumour was ovarian; but that it would be desirable to wait for a time. A fortnight afterwards, she went to a distinguished Physician-Accoucheur, who saw her three times at intervals of a week, and came to the conclusion either that there was some abnormal form of pregnancy—tubular or interstitial—or a fibrous tumour of the uterus. The tumour increased slowly in size, and early in April the general health began to fail. She came in here for a few days towards the end of April. One of my colleagues thought the tumour was ovarian; another thought it was uterine—whether fœtal or fibroid he did not say. It felt extremly like a fœtus through the abdominal parietes, and the *ballottement* between the cervix uteri and symphysis pubis was very suspicious; but then there were no fœtal movements to be detected (though the patient said she felt them), no sounds of fœtal heart, no placental souffle. As there was no fluctuation, and as the sounds of the aorta were transmitted, it was clear that the tumour was more or less solid; but still there was a certain evenness of surface (notwithstanding the irregularity), and an elasticity about it, which gave me more the idea of an ovarian than of a uterine tumour. She left the Hospital, went to the country, and I saw her on her return in May. She was getting larger, losing appetite, breathing with difficulty, and losing sleep from pain. So she came into Hospital again, and M. Nélaton joined our consultation on May 17. At this time a little ascitic fluid had collected, and it assisted greatly in the diagnosis, for it allowed the tumour to move much more freely, and we all became convinced then that the pelvic portion of the tumour was independent of the uterus. On placing a finger on the cervix uteri, and moving the tumour by pressure on the abdomen, the uterus was felt to remain unmoved, except when the tumour was pressed directly upon it. But on placing the finger anterior to the uterus, so as to feel the tumour through the upper wall of the vagina, every movement of the upper portion of the tumour was felt simultaneously in the lower portion. It therefore became quite clear that the uterus was behind the tumour, and that one could be moved independently of the other; but the question was still mooted whether the tumour was ovarian, or a fibroid outgrowth from the uterus. We decided to wait a little, and she went home; but as increase became more rapid, and the distress caused by the pressure greater, she was readmitted for operation on June 2. There was then less ascitic fluid than when M. Nélaton saw her, but I suspected that there was some recent lymph present between the surface of the tumour and the abdominal parietes, as a soft crackling or rubbing could be both felt and heard. The upper border of the tumour could be felt reaching up to the ensiform cartilage, and here a yielding doughy sort of sensation on pressure led me to suspect the presence of a piece of adherent omentum. I felt quite satisfied, whatever the tumour might be, that its connexion with the uterus was sufficiently loose to admit of removal; although I *believed* it to be ovarian I was obliged to admit the possibility that it *might be* uterine, and therefore, to avoid all chance of misunderstanding, I wrote down the following diagnosis and showed it, before the operation, to the gentlemen present: "Either a semi-solid tumour of the right ovary, or a fibroid outgrowth from the uterus, with some ascitic fluid on the surface, and a probability of adhesions on the left side between the tumour and intestine, and of omentum over the upper surface." I removed the tumour on June 5. M. Demarquay, of Paris, Mr. Hey, of Leeds, Dr. Aveling, of Sheffield, and several

(a) See *Medical Times and Gazette*, June 12, 1862.

other friends were present. I first made an incision five inches long, from the umbilicus directly downwards, exposing the tumour and allowing some ascitic fluid to escape, with a good deal of gelatinous lymph. On making a puncture I found, as expected, that the tumour was nearly solid, and accordingly extended the incision upwards to four inches above the umbilicus. Then I separated a large piece of omentum which adhered to the upper surface, and attempted to withdraw the tumour. But I found that to do this without lessening its size would render an incision necessary from sternum to pubes, and I preferred the risk of breaking up the tumour. On doing this a quantity of pseudo-colloid matter escaped into the peritoneal cavity, and I was able to withdraw the tumour, and cut it away after securing the pedicle by a clamp. After thoroughly sponging out the peritoneal cavity the wound was closed as usual, keeping the clamp and pedicle fixed outside the lower angle of the wound.

I have really nothing to say of the after progress of the case, except that the patient got well without a check, and left the Hospital three weeks after operation in good health, and I have heard that since her return from a country visit, she has remained perfectly well.

The next time I did ovariotomy in the Hospital was on June 27. The patient is still in Hospital, gradually recovering, not so much from the operation, as from the effects of secondary hæmorrhage, which caused us great anxiety four hours after the wound had been closed. It was my thirty-ninth case, but the first in which I had ever been troubled by bleeding after the close of the operation; and I may add that in fatal cases I have never once found either blood or clot in the abdomen. The patient was sent to me by Dr. Whitehead, of Manchester, as a fit case for ovariotomy. She was 25 years of age, and had been married thirteen months. She had been in good health until three months after marriage, when a severe pain came on in the left iliac region, which was soon followed by abdominal enlargement; and the pain ceased until last January, when it returned. She was tapped by Dr. Whitehead, and sixteen pints of fluid were removed from one large cyst, but groups of secondary cysts remained. She was pale and emaciated, and there was rather a suspicious want of respiratory murmur at the apex of the left lung, especially as one sister had died of phthisis; but as there was no marked dulness nor increased vocal resonance, we trusted that the deficient expansion of lung was due to the interference of the abdominal tumour with the free action of the diaphragm.

I need say very little about the operation. The incision was only five inches long from one inch below the umbilicus. A thin-walled cyst was exposed, some extensive parietal adhesions easily separated, several cysts emptied and readily withdrawn, and a narrow pedicle having been secured by a piece of wire-rope, which was tightened by an *écraseur* screw, the tumour was cut away, the pelvis sponged out, and the wound closed in the usual manner, leaving the pedicle secured by the wire at the lower angle of the wound. She rallied well, but soon became restless and began to vomit. Three hours after operation, forty drops of laudanum were injected into the rectum, but she still remained very restless, and after an hour — that is, four hours after operation — the nurse found that she was bleeding, and sent for me. On removing the bandage and dressing, I found very free bleeding going on from the side of the pedicle. I could not exactly make out whether any part of the pedicle had slipped back from the grip of the wire-rope, or whether the wire had cut the pedicle, and the drag from the uterus had torn it partly through; but certain it was that I could not draw out the pedicle and reach the bleeding surface by pulling on the wire, so I at once reopened the wound by removing harelip pins and sutures, grasped the uterus, and tied the bleeding surface in three portions. This quite stopped the bleeding. It had been very free, and at one time when the patient had fainted I feared that she was dead. But I determined not to lose a chance: had brandy poured down her throat, cleaned away all blood and clot from the peritoneal cavity, and reclosed the wound, bringing the three ligatures out at the lower angle, but allowing the uterus to sink back to its normal position. She had been almost unconscious of all this; but she vomited and soon rallied, and though she gave us all considerable anxiety for some days, she is now doing well. It is curious that in this case, as in one of which I spoke last Monday where I had to apply ligatures close to the uterus, we have had to deal with a collection of fetid fluid in the left broad ligament. All last week the pulse had been rapid; there had been a tendency to vomit; the pallid face had put on a dusky, jaundiced tint; the urine had been ammoniacal: and, guided by the other case, I had been watching for a pelvic abscess. I felt a fulness between the uterus and rectum, causing a projection of the posterior wall of the vagina, for three or four days before it was sufficiently marked to induce me to puncture; but last Thursday I passed in a trochar, and evacuated eight ounces of dark-coloured fetid fluid. She said she felt immediate relief, and has been getting better ever since, although the ligatures still hold fast.

This leads me to say a few words as to the mode of securing the pedicle of ovarian tumours. The earlier operators, after tying the pedicle with strong silk, whipcord, or twine,—some near the uterus, and others near the cyst—some by simply encircling the pedicle, others by transfixing it, and tying it in two or more portions,—cut away the cyst by dividing it or the pedicle near the ligature, and then returned the remains of the pedicle *within* the abdominal cavity, leaving the ends of the ligature passing outwards through the only unclosed portion of the wound. This practice is, I believe, still followed by Dr. Clay, of Manchester, whose experience of ovariotomy is larger than that of any other English operator. I believe the more modern practice of keeping the tied end of the pedicle *without* the abdominal cavity dates from 1850, the example having been set by a very able London Surgeon, Mr. Duffin, who fastened the end of the pedicle to the abdominal parietes by suture. His case was successful. Before I ever did ovariotomy myself I had become convinced that the mortality was not due so much to peritonitis as to blood-poisoning, and I determined to follow Mr. Duffin's practice; but in my first case the pedicle was so broad and short that I was obliged to transfix and tie it, and leave the ligature and stump of the pedicle within the abdominal cavity. The patient recovered; but she was so ill until the ligatures came away, and her convalescence was so protracted, that I was strengthened in my conviction of the advisability of keeping the sloughing end of the pedicle outside. This was in February, 1858. In my second case, in August, 1858, I was able to secure the ligatures, and the end of the pedicle which they strangulated, outside. About this time Mr. Hutchinson proposed the use of a metal clamp instead of the ligature, and I saw that he had thus given us a ready means of securing the pedicle and fixing it outside. I believe he first used his instrument in September, 1858, and he is entitled to the credit both of suggesting and first using the clamp. In my third case, in November, 1858, I used a clamp differing from Mr. Hutchinson's, and which I afterwards modified to make the pressure more parallel. Drawings of both the instruments may be seen in the *Medical Times and Gazette* for December 11, 1858.

In most cases since I have either used this clamp or Mr. Hutchinson's, except the two in which the wire-rope was used, and one about which I shall say more presently. Whenever the pedicle was so long that the tied end could be kept outside without much pull upon the uterus, the rule has been that the patient has recovered quickly, giving us very little anxiety. But when the pedicle was so short that in order to keep the end outside, the uterus had to be pulled upwards towards the abdominal parietes, there was generally so much exhausting vomiting that I was led to consider the danger of leaving the sloughing end of the pedicle inside, as the lesser of two evils, and in some cases I left it in. But whether the patients recovered or not, they went through a very different course of symptoms after operation from those where the pedicle was long and its end was easily kept outside. In these latter everything generally went well from the first; the dead portion of pedicle beyond the grip of the clamp was removed on the day after operation, the clamp itself on the third, fourth, or fifth day; the portion of slough which had been enclosed between its blades separated a few days afterwards, and by the third week the patient was well. But when the ligature was inside we had a very different train of symptoms. Bilious vomiting and faintness; feeble, fluttering, rapid pulse; pallid, dusky skin; shallow, laboured respiration; and scanty ammoniacal urine, all pointed to poisoning of the blood by the absorption of some portion of the strangulated pedicle. We can see the effect of the ligature upon the pedicle when it is kept outside, and there is no good reason to believe that it can be very different when it is allowed to remain inside. Indeed, when the ligatures come away they generally draw with them just such shreds of black,

fetid, dead tissue as we see separate outside. If the ligature be tied tight enough to stop bleeding and to prevent slipping of the pedicle, one can hardly see how strangulation and gangrene of the part of the pedicle between the ligature and the point where the pedicle has been divided can possibly be avoided, and the train of symptoms observed are precisely those which one would expect to follow putrid absorption. Accordingly, by this time last year I had almost determined never to leave the pedicle inside unless I was obliged. Sometimes it was fixed outside by the clamp, sometimes by ligature after removing the clamp, which was then simply used as a convenient mode of securing the vessels until the wound was closed. In a paper which I read at the meeting of the British Medical Association at Canterbury, last autumn, I suggested the following rules of practice:—

"When the clamp does not drag on the peduncle too much, it may be left lying across the wound; but it will often be better to secure the pedicle permanently by ligature, and remove the clamp, which had been used to secure it temporarily. Close below the clamp, the peduncle is transfixed by a needle, which carries strong twine; and each ligature is so tied as to include a portion of peduncle of about a finger's breadth. One general ligature is then tied tightly around the whole as a security against bleeding from any vessel which may have been punctured. The smaller the portion included in each ligature, and the tighter it is tied, the more rapid is the subsequent process of separation. When the ligatures have been securely applied, the clamp is removed, and any superfluous portion of cyst is cut away; but care must be taken to leave enough beyond the ligature to prevent any danger of this slipping off.

"When the peduncle is so long that the stump (or portion strangulated by the ligature) can be fixed outside the abdominal cavity, it is to be brought out at the lower part of the wound, and fixed there by a harelip pin, which is to be passed through it as well as through both edges of the wound. It is important that the ligature should be on a level with the skin, and that the stump should be surrounded by dressing which separates the sloughing tissue from the raw surface. When the ligatures are fixed at the level of the peritoneum, raw surfaces surround the sloughing stump, and a sloughing condition of the wound, or putrid infection of the whole system, may possibly result.

"When the peduncle is so short that the stump cannot be brought to the surface without great traction upon the uterus, the common practice has been to bring the ligature through the wound, and fix the free ends securely outside. In one case, they were carried through the inguinal canal beside the round ligament, and the abdominal wound was closed. In another, they were cut off short and left, the wound also being closed. It remains for further experience to determine which of these plans is to be preferred; or, if only the vessels should be tied, instead of the whole thickness of the pedicle; or if acupressure can be applied successfully; or if it would be safer to trust to the *écraseur*."

I afterwards became unwilling to delay the operation by this tying behind the clamp; and I also found that I had not over-estimated the danger of allowing the stump to sink in between the lips of the wound. So I carried on the idea of the *écraseur*, but with the intention of leaving on the chain or rope for a few hours before completely dividing the pedicle. I had been the first to suggest the use of the *écraseur*, and I knew that it had been employed suecessfully in America by Dr. Atlee and others since 1858; but I never felt satisfied as to the security against secondary hæmorrhage during the straining of vomiting. So I had a wire-rope adapted to an *écraseur*, and so arranged that all except the cord and a screw to fix the wire after it was tightened could be removed. I then intended to tighten the wire after twelve or twenty-four hours, and thus divide the pedicle with less fear of hæmorrhage. But the plan does not answer. It is very difficult to know the exact extent to which the screw should be tightened. If not tight enough, the pedicle may slip; and if too tight, the rope cuts. I have only used the chain *écraseur* itself once. It was on the 11th of last June. The patient was a young lady who was sent to me by Dr. West. Iodine had been injected, and one cyst seemed to have been obliterated by it; but others grew rapidly, and ovariotomy offered the only hope for her. I was assisted most ably at the operation by Dr. Savage, Mr. Pierce, of Notting-hill, and Mr. Bateman, of Islington. The tumour was easily removed by the small incision; but there was literally no pedicle whatever. The tumour was closely connected to the right side of the uterus. The great bulk of the tumour consisted of very small cysts with very thin walls, but close to the uterus there was a fibrous mass as large as the fist, apparently continuous with the uterine tissue. I was able to push the round ligament downwards, and to get the chain of an *écrascur* around this mass close to the side of the uterus; and as soon as the chain was tightened I cut the tumour away. It was clearly impossible so to draw up the *écraseur* as to keep the strangulated portion of tumour outside, so I gradually loosened the chain, intending to tie any bleeding vessel, cut off the ligature short, and return the uterus. But after the chain was loosened and taken away, there was not the slightest bleeding. We even applied warm sponges, to encourage some, rather than run any risk of after bleeding; but the vessels seemed to have been completely occluded by the pressure of the chain; so I allowed the uterus to sink to its natural position, and closed the wound entirely. There was some troublesome vomiting for two days after the operation; but the patient recovered so well that she went to the country on the 19th day. Dr. Tyler Smith has adopted the novel plan of dividing the pedicle close to the ligature, cutting away the ends of the ligature, and then returning the stump still enclosed in the ligature into the abdomen, and closing the wound. His experience so far has been favourable; but I must confess that I am not yet disposed to follow his example. I do not like the idea of enclosing within the body a portion of tissue which must be killed by the tight ligature left with it. I do not understand what becomes of either slough or ligature. I know of no experiment yet made on animals which can help us to understand it. So that for the present I prefer trusting to the clamp when the pedicle is long; and when it is short either tying the vessels only (not the pedicle), or using the *écrascur*, or applying acupressure, as recommended by Dr. Simpson, of Edinburgh, or the "wire-compress" of Mr. Dix, of Hull, which may be considered as a modification of acupressure. No account of the cases in which acupressure was used have been published; but I have heard a vague statement that all the three cases in which it was employed in Edinburgh died of hæmorrhage. This is probably incorrect, and only shows how important it is to publish full reports of cases to prevent the circulation of mistaken rumours. However, I may say that although I have been often prepared to use the needles as proposed by Dr. Simpson, I have never met with a case where I thought I could use them with safety. Mr. Dix's plan seems more likely to be generally useful. You may find an able paper by this excellent Surgeon, "On the Advantages of Acupressure over the Ligature," in the *Medical Times and Gazette* of June 2, 1860, in which his plan is fully described. It consists simply in passing a piece of wire through the skin beneath the bleeding vessel, and out again through the skin on the other side of the vessel, and then twisting the two ends of the wire, tight enough to stop bleeding, over a piece of cork. After twelve, twenty-four, or forty-eight hours, the wire is cut and withdrawn. There has never been any hæmorrhage in any case where Mr. Dix has tried his plan, and he has used it in three amputations, including one of the thigh. It would be very easy to enclose the entire pedicle of an ovarian tumour in this way, or only the vessels; and if an experiment or two I mean to make on some pigs should succeed, I shall certainly—in some case of short pedicle—give you an opportunity of estimating its utility in ovariotomy.

I may say that the girl last operated on was my 40th case of ovariotomy. If she recovers, which I have no doubt she will, it will give a result of 24 recoveries to 16 deaths,—a proportion exactly of 2 recoveries to 3 operations.

INCOME-TAX.—A return, issued in pursuance of an order of the House of Commons, sets forth in detail the produce of the Income-tax for the financial year 1860-61, first as it really was, and then as it would have been under Mr. Hubbard's plan for a more equitable adjustment of the tax. Under Mr. Hubbard's scheme, the precarious incomes, taxed in schedules B, D, and E, would have been allowed an abatement of one-third; farms, instead of £637,558, which they had to pay, would have paid £528,509; trades and professions would have paid only £3,049,076, instead of £3,613,907; and offices and salaries, £660,388, instead of £756,644. Precarious incomes, instead of paying, as they did, £5,008,109, would have paid £4,237,973. More permanent property, instead of paying, as it did, £6,619,122, would have paid £7,383,948.

ORIGINAL COMMUNICATIONS.

EXPERIENCES OF THE

WINTER CLIMATE OF MENTON;

ITS SALUTARY INFLUENCE IN CERTAIN FORMS OF DISEASE.

By P. C. PRICE, F.R.C.S.E.

Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children, at Margate; formerly Assistant-Surgeon to King's College Hospital, etc.

Continued from page 56.

The Sea.—The Mediterranean being almost a tideless sea, an extensive sea-coast is continuously washed by its ever murmuring waters. This, I believe, constitutes a great advantage. It is true that the absence of tide somewhat prevents the daily accession of fresh and invigorating saline breezes, and entails the loss of an extensive sandy beach; but these drawbacks are compensated for. The air along the coast is always sweet, although it lacks the freshness of that springing from a northern sea. The absence of any extended beach prevents the accumulation of decomposing organic matter, and the consequent impregnation of the surrounding atmosphere with deleterious gases; and not only is a direct advantage thus secured to sensitive invalids, but the main source of an all-important agent to health and pure air—ozone—is perpetually at hand, and ere it is disseminated over the adjacent territory, none of its freshness and invigorating properties are lost. Again, in winter the temperature of the air which floats over the surface of the water is, as a rule, greater than that of the land and its surrounding atmosphere. Under the influence of various winds the two atmospheres become mingled, and thus a higher temperature is accorded to the neighbouring country. It is partly on this account that, during the winter months, the sea-coast generally enjoys a temperature some degrees higher than that of more inland districts. Moreover, many of the clouds which are seen floating over the land, particularly near high mountains, are due to the condensation of the aqueous vapour contained in the warmer air which has passed over the water. By this condensation, a considerable amount of latent heat is given out, especially during the night-time.

I have verified by frequent experiments that the Mediterranean, in the vicinity of Menton, offers more facilities for bathing during the winter months than is generally supposed. The usual surface temperature of the water is several degrees higher than that of more northern seas, and, in the winter, is nearly equal to that of the British Channel during the warmer months of the year. I need scarcely point out the immense advantages which are thus obtained in the treatment of certain forms of scrofulous diseases occurring among children, and which are usually accelerated during the inclement season of winter in a northern climate.

Want of space precludes my mentioning, at any length, the influence of the climate of Menton on physical and vegetable life, but, from the foregoing brief remarks, it may be gathered that Menton, during the winter months, enjoys a dry, warm, and tolerably bracing climate, although rainy days occasionally tend to reduce the temperature, and render the atmosphere, for a short time, somewhat moist and chilly. The number of days in which the sun usually shines brilliantly, and with great power, is, however, so great, that the unpropitious days are worthy of little consideration. It must be admitted that, notwithstanding the occasional occurrence of unusual and unexpected atmospheric changes, an agreeable and equable winter climate is realised. I believe it is not surpassed by any on the same shore of the Mediterranean, and am confident that it has proved most acceptable and invigorating to a large number of invalids suffering from many forms of disease.

From my Medical experience during the past winter, I am induced to offer the following remarks regarding various instances of disease, which appeared to be more or less benefited by the climate of Menton.

Among children, I have seen many examples of scrofulous disease, although of no very serious character. Glandular and throat affections were among the most common. The former, as a rule, were benefited by a free use of the natural advantages offered by the climate, conjointly with Medical treatment. In one instance, the glandular induration, clearly partaking of a strumous character, was in no way improved after some months' residence. When practicable, sea-bathing and constant out door exercise, with a suitable diet, was enjoined. Several cases of enlarged tonsils, accompanied with a granular and thickened condition of the lining membrane of the throat, gradually but surely improved. In one instance, referred to me by my friend Dr. Bennet, removal of an indurated tonsil was indispensable ere accompanying local irritation would subside. The effect of the atmosphere of Menton in diminishing and completely arresting pharyngeal and laryngeal irritation is most marked, and I cannot too highly extol its advantages. Did space permit, I could quote many examples illustrative of this assertion.

Children of various ages, suffering from no actual disease, but exhibiting strong indications of a debilitated and naturally weak constitution, very rapidly shook off all equivocal symptoms, merely by being allowed a liberal enjoyment of out-door exercise. In one instance, a little patient, two years of age, of very delicate constitution, and displaying formidable proofs of rickets in a complicated form, so speedily mended that, ere it left Menton, it had assumed many of the characteristics of a perfectly healthy child. Accidental affections occurring among children, such as bronchitis, etc., were, as a rule, quickly remedied. In one or two localities too thickly surrounded by trees, and where the drainage of the land is somewhat inferior, I saw a few instances of gastric fever, accompanied by extreme depression. Removal from the quarter, even for a short time, to one more favourably situated, was productive of marked benefit. I have noticed a low form of erythema follow on the slightest wound, etc., in such situations where the rays of the sun could not penetrate by reason of the thick foliage of the closely-planted orange and lemon trees. I may mention that a patient, during a few months' residence in such a locality, became the subject of a well-marked and rapidly-increasing goître. Fortunately, there are only one or two residences which enjoy this unenviable notoriety, and they are only taken when other accommodation fails. As a rule, accidental diseases of any kind are very rare among both children and adults sojourning at Menton; this is, of course, in a great measure, to be traced to the effect of the warm, dry, and somewhat bracing character of the air. I have not seen nor heard of any cases of low fever, beyond those I have mentioned, nor any of ague, among invalid residents, although I am told that, some years since, the latter affection attacked some few individuals. The comparative freedom of Menton and its environs from such diseases, is well worthy of notice, and I have somewhat pointedly alluded to the few instances of accidental and debilitating affections I have observed, because the invalid sojourner should make it an object of extreme importance to select a domicile in a situation enjoying the most unequivocal natural advantages.

I have already observed that many delicate children greatly improved during a few months' residence at Menton, not only from the good effects of the climate and the daily enjoyment of out-door exercise, but likewise from the quality of the chief article of their diet—milk. I can particularly speak of the excellent qualities of the milk, which can be obtained with little or no trouble, at Menton. The cows being in a great measure fed on olive-leaves, etc., the produce is rich in cream and most palatable; indeed, I have seldom met with better milk even in England.

To pass to those diseases among the adult invalids, the most common, as might be expected, were those confined to the chest, and especially of a tubercular character. The writings of M. Carriere, and his strong recommendation of Menton and its environs as a residence for tubercular subjects, has for several years been the means of inducing such patients to seek the advantages so forcibly held out.(f) During the past year or two, the more recent experiences of my friend, Dr. Bennet, and Dr. Bonnet de Malherbe (g) have more strongly insisted on the efficacy of the climate of Menton during the winter, in certain forms and stages of pulmonary mischief.

It is not my intention to enter into any critical and extended observations as to the effects of certain climates in

(f) "Phthisis and chronic affections, with exaltation of sensibility and pain, will find an excellent climate in the environs of Menton. Phthisis, especially, which merits more attention than any other malady, may experience a great amelioration in a climate which is soft without being too humid, and is warm without ceasing to be temperate, and where the thermometric oscillations are so rare, so slight, that they can never exert any considerable influence on the most debilitated organizations."

(g) See also an interesting pamphlet by Dr. Edwin Lee, "On Menton."

arresting the progress of pulmonary phthisis; I shall merely note those impressions regarding the value of the climate of Menton in this particular, so far as my own experience has pointed out.

The majority of cases of phthisis and other pulmonary diseases, occurring among the English sojourners at Menton, during the past winter, have fallen under the care of Drs. Bennet and Siordet, and myself. Dr. Bennet's experience of former years is already well known. My own enables me to deduce the following remarks:—

The climate of Menton appears to exercise, in many instances, a marked effect in the restitution or palpable amendment of health in those young constitutions in which the very earliest germs of phthisis are manifested. Provided complete relaxation of all causes of mental and bodily depression be removed, and there be no very decided contra-indications, I believe the climate of Menton during the winter will, as a rule, be found to exercise marked benefit. The not too exciting nature of the air, and its somewhat tonic properties, often produce even the most unlooked-for results. At Menton two distinct kinds of climate may be obtained. The western bay, as before observed, offers a more bracing and exhilarating air than what can be met with in the eastern bay, and, on this account, may be selected as a place of residence by those invalids who, besides a dry, warm climate, require a somewhat bracing and tonic one. Many cases, however, of incipient phthisis, occurring in excitable constitutions, require, on the contrary, a dry, warm, but sedative atmosphere; such may be met with in the eastern bay. In the absence of well-marked physical signs, it is often difficult even to surmise the approximate amount of disease; but in a large proportion of cases, in which something more than incipient mischief was apparently indicated, the most gratifying results followed. It must not, however, be supposed that such happy effects were produced solely by the air of Menton. The greatest care and due regulation of the daily routine of life were, in all cases, absolutely necessary; and in those instances in which Medical treatment played a conspicuous part, more rapid and permanent results could be traced. I mention this point particularly, because in one or two cases in which Medical treatment was carried on by the patient, aided by suggestions from home, but without the sanction of any Medical authority at Menton, the most distressing consequences ensued. It is impossible that a Medical attendant residing many hundreds of miles distant from Menton can efficiently advise his patient; and yet such was not uncommonly attempted.

Although in young and middle-aged patients in the earliest stages of consumption, the progress towards health was generally rapid, yet, in some instances, it was not infrequently checked by the invalid endeavouring to join in the daily enjoyments and occupations of the strong and active. Fatigue of any kind ought to be avoided, and long excursions among the hills should, as a rule, be declined. I knew of more than one case in which considerable digression occurred from the effects of over-fatigue and the want of a sensible regulation of employment and amusement. To be housed before sunset is indispensably necessary, especially during the first months of sojourn at Menton, or anywhere on the Mediterranean coast. It is equally imperative to remain indoors during damp or unseasonable weather.

I find it impossible to speak decisively of the effects of the climate of Menton, on those cases of tubercular phthisis in which a tendency to hæmorrhage was an active sign of the advance of the malady, or an accompaniment of long-standing disease. It is certain that in some cases in which occasional and slight bleedings had occurred, prior to arrival at Menton, no further return took place after a few months' residence; while, on the other hand, it must be admitted that (judging from my own observation), in one or two instances, the air of Menton seemed to favour a tendency to pulmonary hæmorrhage. In these cases, however, I believe sufficient care was not always observed when taking exercise, etc. As already noticed, last winter was by no means a favourable specimen of the climate of Menton during this portion of the year. The amount of rain which fell rendered the atmosphere for a time more humid and chilly than usual, and this, together with the diminished temperature, proved disadvantageous to many invalids. More than one patient suffered during this period an attack of hæmorrhage, but rapidly mended as the ordinary fine, bright, sunny weather set in. Several phthisical individuals, although experiencing one attack of hæmorrhage, had no recurrence during a protracted stay at Menton, and as they daily improved in health and gained strength, it is only fair to draw a favourable inference as to the effects of the climate in a large proportion of cases of pulmonary consumption, associated, during its earlier stages, with a hæmorrhagic tendency. During the past winter several individuals labouring under phthisis, rapidly passing through its various phases, or with the disease in almost its last stages, sought the supposed advantages of the climate of Menton. The majority of these unhappy sufferers met with the same disappointment which they would have experienced had they hastened to any other southern residence. Ill-advised, or, perhaps, acting on their own inclinations, they travelled by long and tedious journeys to the desired goal, and, having reached Menton, found, unfortunately, that climate could do little for them, and that after all their sufferings and inconveniences they were worse than when they left England. It is a dismal picture to draw, but, alas! a true one. I believe, with Dr. Bennet, that patients in the last stage of phthisis and greatly reduced in health and spirits, are far better at home, or, at any rate, in a climate much warmer than any which can be found in France or Italy. It is gratifying, however, to be able to state that some cases of pulmonary phthisis, in a very advanced state, did remarkably well, but then the patients themselves possessed youth and otherwise a good constitution.

It is not my intention to enter into any details regarding the treatment of this common malady, or to make any comments as to the effects produced on its amelioration, etc., by a prolonged residence on the Mediterranean coast, but I cannot avoid offering the following observations. I have already stated that, unfortunately, many patients labouring under phthisis in an advanced state have most unwisely undertaken a long and tedious journey to Menton, without gaining the expected advantage, but, on the contrary, have greatly suffered thereby. Unhappily, several individuals much reduced by disease, who after spending the winter at Menton with, at least, some benefit, have not only undone all the good they have gained, but actually proved their own immediate destroyers by attempting a too rapid and fatiguing journey home to England. One case, in particular, was painfully brought under my notice during my own homeward progress, and I would urgently advise due care and attention to be observed in the transit of all invalids who are eager to hasten from the warm climate of Southern Europe to the colder regions of England. The consumptive invalid should reach Menton some time during October, perhaps early in the month, and should leave not later than the end of April or beginning of May. It is sometimes feasible to stay till the close of the latter month, but, I believe, the climate at this period will usually be found too hot and relaxing. As to the manner of life to be observed by the consumptive patient at Menton, much will depend on the actual state of the disease and his constitutional powers, etc. I would advise, however, no invalid to settle definitely in any quarter of Menton ere he has sought advice on many points of extreme importance.

Bronchitis, Affections of the Throat, etc.—As might be supposed, owing to the generally warm, dry, and somewhat bracing character of the climate of Menton, bronchial affections were of very rare occurrence among middle-aged and elderly people, and when such did occur the state of the weather was generally unfavourable. Several people, who in England seldom passed a winter without one or more severe attacks of bronchitis, enjoyed a complete immunity from the affection. One gentleman, who for years, during winters passed in a northern latitude, always had a severe attack of bronchitis, completely escaped, and such was the case even with the most susceptible. To those suffering from asthma in its various forms, much good may frequently be expected. One lady, subject to constant attacks of humid asthma when in England, had a complete reprieve while at Menton; but on her journey home she was annoyed by her old enemy.

I met with several instances of relaxed throats, but they always happened during those periods when any unusual amount of rain fell, which naturally caused an increased quantity of moisture to circulate with the surrounding air. More formidable affections of the throat, etc., did not fall under my notice, nor do I think any instances occurred among the English.

Rheumatism, Gout, Neuralgia, etc.—Attacks of what is sometimes denominated flying rheumatism, were of no unusual

occurrence among many who occasionally suffered in a similar way in England and elsewhere. Those who resided close to the sea more frequently experienced such attacks than those who lived more inland. One lady, who during a former winter passed at Malaga without any rheumatic seizure, experienced at Menton more than one attack which proved difficult to throw off. Such was the case with other residents, although several people who, while residing in a colder climate, were often susceptible to chronic rheumatism, completely escaped.

I attended some few cases of gout in elderly people, but the affection was more commonly observed on any unusual change in the weather. I do not think, however, that a residence at Menton in any way favours the expression of the gouty diathesis.

Regarding the susceptibility of individuals predisposed to neuralgic attacks, it is difficult to write anything very definite. It is undeniable that many people after taking up a residence near the sea at Menton, have suffered more or less from this painful affection. Others, on the contrary, who when in England scarcely passed a month without a more or less severe attack, enjoyed an immunity during the whole winter. One lady, now living in Paris, told me that directly she entered Menton she became subject to the most painful neuralgia. It is well known, however, that the climate of the whole Mediterranean coast is, as it were, capable of producing this distressing affection in certain constitutions, while, on the other hand, many sufferers find no relief but from a residence on its shores. I noticed that attacks of facial and frontal neuralgia were generally most usual at those times when the weather was unsettled, and the wind strong and dry. At all events, it is, I think, impossible, in certain instances, to pronounce whether a residence at Menton, even for those individuals predisposed to neuralgia, would prove beneficial, or tend to aggravate the affection.

Surgical Affections, etc.—As might be supposed, several cases of pulmonary disease were complicated with affections which usually fall to the immediate care of the Surgeon. Diseases of the lower bowel, in some instances, aggravated concomitant mischief in the lungs. One gentleman suffering from a pulmonary affection, became, in a great measure through his own imprudence, the subject of a complicated fistula in ano. Another patient, under the care of Dr. Siordet and myself, likewise the subject of phthisis, suffered severely from irritation of the bladder; but as he experienced the same symptoms during his homeward journey, I do not think the air of Menton in any way predisposed to it. Indeed, I am inclined to believe that the climate of that portion of the Mediterranean coast is well adapted for cases of kidney and bladder disease. Chronic abscesses and suppurative surfaces speedily heal in such an atmosphere, and as out-door exercise is nearly always practicable, the best results may safely be expected.

Since my arrival in England, several questions have been asked by invalids who anticipate spending next winter at Menton, as to the amount and kind of accommodation, and the quality of food, etc., to be obtained. I may briefly state that numerous additional villas, *pensions*, and hotels, are being constructed for the convenience of invalids, and will be ready by the commencement of the approaching season. Moreover, it is easy to procure an ample amount of provisions, and those of the best quality.

In the above observations I have but briefly mentioned those points in connexion with Menton which I thought would most interest the Professional reader. I trust, however, very shortly to extend these remarks in a separate publication.

7, Green-street, Grosvenor-square.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

(Continued from page 6.)

The following nine cases of craniotomy occured in my practice during the last eight months of the year 1841, and the first seven months of 1842 :—

Craniotomy.

Case 118.—On May 6, 1841, at 4.30 p.m., a Medical friend requested my assistance to Mrs. W., in Lambeth, in labour of her first child. The membranes broke on the 4th, and she had been suffering strong pains ever since. I found her very restless, with considerable fever and an exquisitely tender abdomen. The head was partially protruded through the brim, the base of the skull being still above ; neither ear could be felt ; the brim measured in its conjugate diameter very little more than three inches ; the os uteri was not entirely dilated, but it was soft. The urine had been drawn off by the catheter very recently. Believing the child to be alive I endeavoured to deliver by the long forceps. I succeeded in locking the blades with great difficulty, but with all the power I dare exert, I could not move the head in the least. I therefore took them off and perforated. Extraction, even after the chief part of the brain had been evacuated, occupied fully an hour. The placenta was soon expelled, and the woman recovered very well.

N.B.—I have always had less compunction in perforating a fœtal head after I have adapted the long forceps, and made abortive attempts to deliver by that instrument, than if those attempts had not been made ; because I am quite certain that if I cannot draw the head through the pelvis, when I have got a firm hold of it by the long forceps, Nature will never be able to expel it unassisted.

Craniotomy.

Case 119.—On the same evening, May 6, at 10 p.m., I was sent for by a Professional friend to Mrs. M., in Whitechapel, in labour of her first child. The membranes broke at 8 a.m. The funis was prolapsed, not pulsating. The head was chiefly above the brim, which was much contracted in the conjugate diameter. The os uteri was fully dilated. The pains were very strong, but there had been no advance for many hours. As the child was dead, I perforated the skull and delivered in half an hour. The placenta was soon expelled, and the woman did well.

Craniotomy—Hydrokephalus.

Case 120.—On August 1, 1841, at 9 p.m., a Medical friend sought my assistance in the case of his wife, whom he was himself attending. The membranes broke at 6 a.m., and at the same time a fold of funis protruded into the vagina. When I saw her pulsation in it had ceased for some hours ; the pains had been very strong all day, and she had suffered severely in the region of the pubes with each return of uterine contraction. The os uteri was well dilated, and I had no difficulty in ascertaining that the head was dropsical. I perforated it and let out about a pint and a-half of serum. I would have finished the delivery at once with the crotchet, but my friend objected to extraction being had recourse to, as the os uteri could be felt all round. I therefore left the case entirely in his hands, and the child was expelled at 4 a.m. The placenta was adherent, and he removed it by the introduction of the hand. She recovered very well.

Craniotomy.

Case 121.—On August 9, at 7.30 a.m., I was sent for by one of my pupils to Mrs. A., in Shadwell, in labour of her sixth child. Her labours had always been lingering; twice she had been delivered by craniotomy, but three children had passed whole, two being alive. The membranes had been broken twelve hours, and the pains had been strong all night ; the head was partly in the pelvis, the base of the skull being above the brim, which measured, as nearly as possible, three inches in the conjugate diameter. The bladder had acted recently. I tried to apply the long forceps, but, as I anticipated, I could not make them lock. As the woman's powers were still good, and the uterus was acting vigorously, as the head was not wedged or locked in the brim, and, moreover, as she had expelled two living children, I was unwilling to perforate the skull at that time, and therefore left her under my pupil's care, and saw her again at 3 p.m. I found that the head had not advanced in the least, although the pains had continued powerful. The patient had become fevered and irritable ; and I thought it better to deliver her at any rate. I relieved the bladder by the catheter, and again tried the long forceps ; again, however, I was baffled in my attempts to lock them. I therefore at once perforated the skull ; extraction occupied half an hour ; the head was very strongly ossified. The placenta passed speedily, and she recovered well.

Craniotomy.

Case 122.—On August 13, 1841, I was requested by one of the midwives of the Royal Maternity Charity to see Mrs. S., in Shoreditch, in labour of her first child. The membranes broke at the very commencement of labour, many hours

before ; the head was entirely above the pelvis, no part having entered through the brim. The brim did not measure in its conjugate diameter more than two inches and three-quarters. The os uteri was almost entirely dilated. The pains had declined much, both in frequency and power ; and the woman's system was considerably depressed by the length of her labour. Feeling that it would be useless to wait any longer, I at once perforated the skull, and evacuated almost the whole of the brain ; but I had very great difficulty and trouble in extracting the child. The placenta was soon expelled, and she speedily recovered. I have brought on premature labour for this woman five or six times, if not oftener.

Craniotomy.

Case 123.—On November 12, 1841, at 5 a.m., I was sent for by a Professional friend to Mrs. C., in Shadwell, in labour of her tenth child ; all but the first had been born living. She had been delivered of that child by a celebrated provincial Accoucheur, but whether by craniotomy or forceps I could not learn. All her labours, however, had been very lingering. The membranes broke fifty hours before I saw her, during the greatest part of which time the uterus had been acting very powerfully ; but the pains were now feeble and infrequent. The pulse was not very quick, the tongue was not loaded, nor was the countenance much distressed. But the uterus, on the external application of the hand, was found to be very tender ; and she had had no sleep since the commencement of the labour. The head was not at all engaged in the brim of the pelvis, which measured exactly three inches in its conjugate diameter. The os uteri was not entirely dilated. The bladder had acted naturally many times in the course of the labour. I hesitated as to whether it would not be better to leave the case a few hours longer ; but feeling at last convinced that the head would not pass through the brim whole, I perforated, and with very great exertion delivered in an hour and a-half. I never had greater difficulty in perforating a skull, in consequence of its highly ossified condition. The placenta passed in a short time, and she did quite well.

Craniotomy.

Case 124.—On May 16, 1842, at 11.30 p.m., I was sent for by a Medical friend to Mrs. J., Houndsditch, aged 24, in labour of her first child. Pains commenced actively on the 13th, and since that time she had not enjoyed an hour's sleep. The head came low into the pelvis before the membranes broke, and must have been impacted there also, because a large quantity of liquor amnii came away from the uterus immediately it was extracted. The membranes had not been broken more than six hours when I was called. The pains were most violent ; the woman was screaming very loudly. The pelvis was entirely filled up by the head, which was greatly elongated, so much so, indeed, that neither ear could be felt. It was very narrow at the outlet, from the tuberosities of the ischia approaching each other too nearly, and the external parts were exceedingly rigid. There was reason to believe the brim was also narrow from the elongated condition of the head, which I subsequently found to be the case. I thought I could deliver by the long forceps, and applied them easily ; but, although I used considerable exertion, I could make no impression upon the head. I therefore perforated, and was an hour extracting. In fifteen minutes some hæmorrhage came on, which induced me to remove the placenta from the uterus. I found it strongly adherent throughout almost its whole extent ; and the uterus was powerfully contracted around it, so that I had great difficulty in separating it. When I attempted to withdraw my hand with the placenta in its grasp through the pelvic outlet, I discovered it was too narrow to admit my doing so. I was therefore obliged to remove my hand open, and trust to the funis for bringing away the placenta ; but this was easily effected, as I had separated it, and it was lying loose in the vagina. The woman recovered without a bad symptom.

Craniotomy.

Case 125.—On June 19, at 12 at night, I was called by a Medical friend to Mrs. B., Bethnal-green-road, aged 39, in labour of her first child. The membranes broke early on the morning of the 17th. The pains had been strong and expulsive ever since till recently. The os uteri was not fully dilated, but very lax, pinched both anteriorly and posteriorly between the head and the pelvic bones. The head was quite above the brim, which did not measure more than two and three-quarter inches from the pubes to the sacrum. The pulse was very quick, the uterus had almost ceased to contract, and the woman was much distressed. I perforated the head immediately, and delivered with great difficulty in an hour. The whole of the brain was evacuated. The placenta passed in fifteen minutes with some hæmorrhage, and the woman recovered well.

Craniotomy.

Case 126.—On July 27, 1842, at 11 p.m., a Professional friend sought my assistance in the case of Mrs. P., Whitechapel, in labour of her first child. The membranes broke on the afternoon of the previous day. The pains had been strong and expulsive, but had now almost ceased ; the pulse was 120, and the woman greatly exhausted. The base of the skull was entirely above the pelvic brim, which did not measure more than two and three-quarter inches in the conjugate diameter, while the cavity was considerably occupied by the remainder of the head, which was much elongated : neither ear could be felt. I perforated the skull, and delivered in about three-quarters of an hour. The placenta came away soon, and she did well.

8, Portman-square.

(To be continued.)

A CASE OF COLLOID CANCER OF THE GREAT OMENTUM.

By B. WALTER FOSTER, M.D., L.R.C.S.I.
Assistant-Physician to the Queen's Hospital, Birmingham, etc.

The following case appears to me worthy of record, from some very marked peculiarities :—

E. T., aged 21, harness maker, was admitted into the Queen's Hospital, under my care, early in December last. On admission he presented a weak anæmic aspect. He complained of an abdominal tumour, which he stated had been growing for about six months, and had first appeared as a little lump on the lower part of the left side of his abdomen. Since its first appearance it had steadily increased in size, without, however, causing any great inconvenience ; but exciting rather a sensation of uneasiness, distension, and weight, which prevented him sleeping at night. His appetite had not been much impaired, and there had been no vomiting until a few days before his admission. His bowels had been constipated nearly ever since the tumour had begun to enlarge. So little positive inconvenience had the tumour occasioned, that he worked up to within a few days of his entrance into the Hospital.

On examination, a large tumour was found extending from the left hypochondriac region, downwards through the umbilical, left lumbar, hypogastric, and left inguinal regions. No fluctuation could be detected ; the abdominal walls were tense, the tumour felt hard, and in spots nodular. On percussion it was dull in all positions of the patient. On auscultation no sounds were heard. In the left inguinal region, where the tumour first appeared, there was a distinct nodule, red on the surface, and very painful on pressure. The tumour did not extend higher than the lower margin of the stomach, except at the left side, where it ran upwards towards the spleen. The liver was not enlarged. Sounds of heart and lungs healthy. Urine high-coloured, with a deposit of lithates.

During the first four days after his admission no vomiting occurred, and his bowels were freely opened after the administration of a purgative. On the fifth day vomiting supervened, and some black blood was found in the matters vomited. A sedative draught allayed this for a time, but it recurred, and continued with occasional intermissions until his death, which took place on the seventh day after his admission.

The body was examined twenty-eight hours after death. It was considerably emaciated. The abdomen on palpation gave a subdued sensation of fluctuation, and the tumour felt not nearly so hard as it had been during life.

Head.—The brain and membranes were healthy.

Thorax.—Some serous fluid was found in the pericardium, amounting to about three ounces. There was also slight serous effusion in the pleuræ.

Heart was healthy.

The *lungs* were slightly congested posteriorly, and some cretaceous deposit was found round the root of the right lung.

Abdomen.—On opening the abdomen the tumour was found to be adherent to the anterior abdominal walls; the adhesions were broken through with difficulty, and some dirty serous fluid was seen in the cavity of the peritoneum. The tumour occupied all the great omentum, completely infiltrating it, and extending upwards to within about an inch of the greater curvature of the stomach, and also towards the spleen in the gastro-splenic omentum, and downwards into the pelvis, dipping behind the pubes to the summit of the bladder. The small intestines were so adherent to the tumour, that they could not well be separated from it, and had to be taken out along with it. They were matted to it by many old adhesions, and in places their peritoneal coat seemed to be amalgamated with the structure of the tumour; their other coats were healthy. From the situation of the tumour the small intestines were hidden by it; but the ascending colon and the right part of the transverse colon could be seen; the descending colon was matted to the side of the tumour. On cutting into the mass, it was found to contain gelatinous matter, rather more fluid in the centre than at the circumference. Nearly three-pounds of this sizey matter were evacuated after the incision.

When examined, the stomach was found to have no cancerous deposit in its coats. The mucous membrane was red and congested in spots. The spleen, kidneys, and pancreas were healthy. The liver was normal in structure, but some deposits of colloid matter were found situated in the gastro-hepatic omentum near its attachment at the transverse fissure. The mesenteric glands were enlarged, congested, and all that were examined were found infiltrated with colloid structure. The peritoneum covering the bladder exhibited several nodules in structure similar to the larger tumour, but rather more fibrous on section, and harder. The largest of these nodules was about the size of an orange, and was merely attached to the peritoneal coat of the bladder, the mucous membrane internally being healthy. The tumour, when separated from the intestines, weighed 7¾lb.

The tumour on further investigation was found to consist of sizey, glue-like matter, which was denser at the circumference than in the interior, where it was soft and semi-diffluent. The colloid matter at the circumference appearing to be enclosed in firmer and better defined alveoli than existed in the centre. Scarcely any traces of the great omentum were visible, but a kind of fibrous capsule invested the tumour, formed, I believe, partly of altered and chronically inflamed peritoneum, and partly of fibrous tissue similar to that forming the septa in the interior of the tumour. The small nodules found on the summit of the bladder and elsewhere, varied in consistence, but on section and examination presented the same general characters as the larger mass. Different parts of the tumour when placed under the microscope exhibited nucleated cells lying free in the colloid matter, as well as large compound cells, having all the characteristics of cancer cells. In some sections the fine fibrous septa of colloid cancer were distinctly visible, mapping out, by their curvings and interlacements, spaces which were filled with gelatinous matter. In short, the structure exhibited unequivocally all the appearances described as characteristic of colloid or gelatiniform cancer.

The points worthy of remark in this case, and to which I wish to draw especial attention, are:—

1st. The large size of the tumour. It weighed when taken from the body 7¾lb., in addition to nearly 3lb. of gelatinous matter evacuated when it was first cut into, making in all more than 10lb. The mass in the great omentum was certainly considerably larger than a man's head. This bulk is the more remarkable when we consider the rapidity of its growth. From all I could learn from the patient and his friends, the tumour had not existed much more than six months, and was detected, as he expressed it, when "only a small lump." I am of opinion that the disease commenced in the lower part of the great omentum on the left side, and quickly contracting adhesions to the parietal peritoneum in the left inguinal region, gave rise to the small tumour first noticed by the patient. Certainly, after its detection the increase was most rapid, outstripping by far the usual growth of colloid, and almost rivalling encephaloid in its speedy enlargement.

2nd. The few symptoms which the presence of so large a mass of malignant disease occasioned. The man actually worked up to within a week of his admission; and all through the course of the growth of the tumour had felt no particular pain, but merely a sensation of weight. His appetite had been almost unimpaired, his mental faculties were clear, and the debility was not very marked until nearly the close of the case. The chief symptoms of which he complained were,—inability to sleep at night, constipation, and progressive emaciation. There was also a considerable amount of mental depression, as is most generally observed in abdominal diseases. The want of marked cachexia is not uncommon in cases of colloid cancer; tumours of this nature often attaining considerable bulk without giving rise to any great constitutional symptoms. The almost total absence of the usual signs of malignant disease in this case, and the length of time that the man followed his usual occupation, are, however, I consider, worthy of remark.

3rd. That there was no cancer in any other situation than the peritoneum, either deposited secondary to the disease of the serous membrane, or existing previous to its development. The lungs were free from all signs of cancerous deposit. The liver and spleen, although contiguous to some nodular deposits of colloid, exhibited no trace of cancer in their interior. The disease was, in fact, limited to the peritoneum. I refer to this because I believe that colloid differs chiefly from the other forms of cancer in this respect, and is seldom, if ever, accompanied by secondary deposits in distant organs, although, as Rokitansky says, "it is somewhat prone to extend to contiguous organs, and to scatter itself over serous membranes." Colloid cancer of the great omentum is stated by some authors(a) to be generally secondary to cancer of the stomach, in this case it was most distinctly primary in the omentum.

4th. The structure of the tumour possessed a distinct capsule, to which I have alluded above. This is rarely found in colloid tumours, except in the omentum. The smaller nodules on the bladder, and elsewhere, did not possess any very distinct capsule. When examined under the microscope, sections of the tumour exhibited the nucleated cells called colloid corpuscles by Lebert, as quoted by Paget. Large compound cells were also observed, containing several granular nuclei, of various sizes, as well as nucleated cells. The fibrous tissue was also distinctly seen. These structures were so characteristic, that my colleague, Professor Furneaux Jordan, who assisted me in the microscopical examination of the tumour, at once agreed with me in pronouncing the disease decidedly malignant. I call attention to the appearances presented under the microscope more particularly on account of the semi-malignant course that colloid often runs, and which has to some minds seemed sufficient to exclude it from the category of malignant disease. The microscopical appearances in this case seem to me to leave no room for doubt as to the cancerous nature of the tumour.

In conclusion, I may mention that there was no trace of hereditary transmission. The living members of the family were healthy, and none of those who were dead had, as far as I could learn, died of any malignant disease. The early age at which the patient died is interesting, as cancer is generally considered to be a disease of middle and advanced life, though some cases of colloid cancer have been observed by Lebert in children of tender years.

Birmingham.

Trousseau has already christened the bronzing of the skin in connexion with disease of the supra-renal capsule, "Addison's Disease."

Vaccination and Small-pox in Lombardy in 1860.—According to a Report of Dr. Martorelli, Lombardy is one of the countries in which vaccination is most completely resorted to. Thus there were vaccinated in 1860, 82,801 infants; and as it has been calculated that but 86,227 were born during that year, there remained but 3427 unvaccinated,—a number accounted for by the deaths of infants under three months, and the neglect in registering the vaccination of others. In the Sub-Alpine and Lombardian regions the number of births in a population of 3,777,387 were 118,415, and the number of vaccinations one-seventh higher, viz., 137,981. During 1860 an epidemic of small-pox prevailed, and 4689 persons suffered from variola, 848 from varioloid, and 239 from varicella,—the total of deaths amounting to 868. The proportion of the mortality varied from 2¾ per cent. in some districts to 15 per cent. in others,—the severity of the epidemic being always greatest in the districts in which vaccination had been least rigorously enforced. In Lombardy few suffered from variola below the age of puberty; revaccination had been performed there in 4105 cases, 55 per cent. succeeding.

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a) Walshe

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

ABSTRACT OF LECTURES ON PATHOLOGY.

By SAMUEL WILKS, M.D., Assistant-Physician to the Hospital.

LECTURE II.—ON TUMOURS OR NEW GROWTHS.

I WILL now proceed to the consideration of the subject of tumours or new growths, and I may at once state that I see no reason to alter the opinion I have long expressed, that there are not to be seen in morbid produets any cells whieh deserve the name *heterologous* as distinguished from *homologous*, or those which resemble the cell-forms of healthy parts. The opinion you know which has generally prevailed is, that certain tumours are composed of the same structures with those found in the healthy body, and that these constitute the innocent growths, whereas others are eomposed of elements foreign to the body, and these are the malignant. It thus became the object of the microscope to discover in what this difference consisted; when, therefore, it was positively stated that cancer, tubercle, and other substances could aeeurately be distinguished by the characteristic peculiarities of their cells, the long required desideratum seemed accomplished, and pre-existing opinions more firmly established. We had, indeed, nothing to do but to apply the powers of this instrument to any new growth and at once decide upon its innocency or malignancy. I myself have never admitted the fact, that the microscope can assert such peculiarities; and even should it do so, the whole subject is then far from being exhausted, for there are still left many tumours and newly formed substances which eome into neither eategory of malignancy or innoceney, but hold intermediate positions; and there is the fact, also, that many tissues, as bone, eartilage, etc., which the microscopist would eall innocent, are propagated through the body like malignant growths. These facts alone demand that we should take a very large and extended view of the subject, and, therefore, I feel surprised that in the latest Surgical works the articles on eaneer and innocent tumours should have been written by separate authors and in a different spirit, whereas such division is quite artificial, and damages a subjeet requiring a most eomprehensive treatment. The subject has, in fact, been too mueh studied as one of surgery, and in relation to external growths, whereas it is one rather of general pathology, and should be treated of only by those who will take in the whole range of morbid processes, whether affecting the internal or external parts of the body.

It wants but a moment's consideration to remember that nearly all new growths are of the simplest eomposition, that we do not discover in them those complex structures of which the various organs of the body are made up, and in this seems to lie the great difference between physiological and pathological formation; and first of all, you must remember that in the ease of a cell with its nueleus we usually regard the latter as the active germinal part, whilst the former, with its contents, has been modified according to circumstances so as as to constitute the peculiar features of the tissue which it forms. Thus the eells in various parts of the body have already been developed into their characteristic forms, and having their own peculiar functions, whilst the nucleus remains powerful only to preserve the cell in its integrity and to propagate a new generation of eells. The instances where the changes in eells are most strongly marked arc those of blood-vessels, museles, etc., but herc the nuclei are still seen. Now, in an ordinary physiological process where there is a constant wear and tear in the tissue, we suppose that these formed cells are eonstantly wearing out, and their place supplied by new ones, and that this process goes on in so quiet a manner under the direct influenee of the parent tissue itself, that no obvious changes are seen. The material out of which the new tissue is formed is of course the blood. In a pathological process it would seem that there is an excess of pabulum afforded by the blood over that which is necessary to the healthy growth of the tissue; and this being more out of the influence of the original structure whenee it proceeds, cells of a simple eharacter are alone produced, and whieh cannot assume the form or function of the complex organ whence they sprang. Thus, tumours and other growths in the various viscera of the body are not of the nature of the organs themselves, but are of the simplest eharacter.

You will be ready to ask at onee, why should this exudation and production of cells occur? but this quesbion can only be answered by the fullest investigation of the whole subjeet before us, and then only in part; seeing that a positive answer would include in it whether eancer, for example, arose from a local eause or whether there must not be some constitutional vice in the system to start it into being; whether, indeed, it be a loeal affection, and the sooner removed the better, to prevent contamination of the system, or whether being due to some depravity in the body, such operation is useless. These are certainly the most important points about which to gain information, and at present very contradictory opinions prevail; the constitutional cause of eaneer being strongly held by most Surgeons, and those of much clinical experience, whilst its local origin is one which a study of pathology would rather incline us to embrace.

These new products, which are formed in a pathological sense, and out of the immediate influence of the tissue whence they spring, are, as I have said, of a very simple eharaeter, not putting on the form of the complex organs near whieh they may grow, but consisting prineipally of cells and fibres,—the latter being formed either from pre-existing eells, aceording to one theory, or by the fibrillation of a simple exudation, according to another theory; but in whatever way the fibre is formed it is not propagated like the simple cell-growths, and is, therefore, styled non-malignant. Here, again, the question arises, why should one of these produets arise rather than the other? Is it due to a want in the system of that vice which may be supposed to have produced simple eells, and to the presence of a more healthy state, which has power to form fibre, or is the differenee due solely to a local cause, and to the different tissue in which the two may originate, although apparently springing from the same organ? This is a question, like the other, which would carry most important results in its answer; but the time has not arrived to satisfactorily give it. All I ean say is, as before, the tendency of pathological research is rather to take the heterodox course, and lead to the belief that local causes have very great influence in inducing the differenee.

Besides these opposite kinds of growths, we have several intermediate ones, of semi-malignant eharaeters; and thus we may say that in nearly all parts of the body new growths are eomposed of eells and fibres in various degrees of development and of admixture, and that just in the proportion as the aetive parts of the cells are alone produced, the nuclei, so is the growth eminently malignant, and disposed to propagate; and just also in proportion as the growth is prone to fibrillate, so is it disposed to be innocent.

I have said that the majority of tumours are eomposed of these simple elements, it appearing that the complex structures eannot be reproduced; but if the tumours should spring up in eontact with some of the less eomplex parts, then we find the tumours modified according to the nature of these parts. Thus we find that a growth on the skin may be composed of epithelioma, and growths near the mammary and labial glands to consist of glandular structures. So, also, tumours near bone may be osseous, enehondromatous, or, if springing up in the marrow, myeloid.

I have thus endeavoured to give you in a few words a general idea about new growths or tumours,—that in the soft parts, and indeed in most parts, of the body they eonsist mostly of eell and fibre; the more cellular the more readily propagable, and therefore malignant, whilst the more fibrous the less capable of propagation and less malignant. This is the general idea; and you will remember that, although thus uninfluenced in their development by the more eomplex organs, they are modified by the more simple ones, and thus on the surface of the body a growth may have epithelial elements, near the breast may eontain imperfect mammary tissue, and if near bone may consist of osseous structures, etc. It is

owing to a consideration of these latter cases which incline me to the belief that the local influence has more to do with the growth of a tumour than the constitutional; for it is a fact that an osseous tumour, even though propagated through the body like malignant disease, has its origin in a bone, and therefore has a local cause to determine its character. The argument is not so simple in case of cancer, because this may have its source in so many parts, but none the less the reason for its local origin if other circumstances tend to favour this view.

To begin, then, with the cell and fibre growths, which we may regard as the typical forms, and first with the cells. The cancer-cell, as described by Lebert and others who believe in the specific character of the cell, is a sphere with an elliptical nucleus placed excentrically, and occupying half or more of the interior, and with one or more large nucleoli. This, according to some, would arise in a free blastema, whilst others would make it spring from a pre-existing normal cell; but, whatever theory is held, it is evident that the greater disposition such cell has to generate, the more unhealthy is the process, and, on the other hand, the greater the effort to approach in form to a natural tissue the more is the process allied to one of health. You can thus see why one propagates and is malignant, whilst the other has less power of this kind and is innocent. You can conceive of nothing in the body having more of a malignant nature than this—an objectless cell-growth. This would be true, you will say, did the cell have no particular features of its own, but resemble the simple embryonic cell from which the tissues spring. For my own part, I think that this is the case, and that the so-called cancer-cell is no more than an embryonic cell. You will, therefore, judge at what value I rate the microscope in this inquiry: that if particular cells are placed before it, it will be unable to decide as to their nature; but with the viewer's knowledge of the source of these elements, it will very accurately declare their character.

The active principle of growth lying in the nucleus, it is clear that the more the tumour is composed of nuclei the more malignant is its nature, and the better formed the cell wall so is the growth less malignant, and so on according to the further development of the cell wall. I have been in the habit of explaining this on the generally received principle that the nucleus is first formed and subsequently the cell. The latter showing a higher state of development; upon the more modern theory of Virchow, I scarcely know how the fact is to be explained that the most highly malignant tumours consist of little else than nuclei; but you will find this to be the fact that the most acute cancers, the encephaloid, which often involve several parts of the body at the same time, and sometimes run their course in a few weeks, consist of nothing but nuclei and molecular matter; a careful examination showing that the nuclei are imbedded in a homogeneous and almost fluid matrix; and unless the spaces in which the nuclei are situated are styled cells, there is certainly no other appearance which can represent such bodies. When we discover a well-formed cell wall the growth is firmer and has been generally of slower progress, and at same time the matrix in which it lies is firmer. As the development of the cell wall still goes on, so it becomes angular or caudate; this shows a much slower growth, and that the tumour has a more healthy tendency. It is generally also much harder, as the matrix in which the cells lie is of a fibrous character. This form of cancer is styled "scirrhous." An intermediate form between this and the soft acute encephaloid, just mentioned, might be called *firm* encephaloid. These facts are constantly brought before my notice by the disappointment of students who eagerly take specimens of large well-marked cancerous tumours for examination and find nothing but nuclei, whereas the caudate cells which they so much love to see, are to be rather found in some slow growing obscure tumour which they might readily overlook.

Suppose, now, that the cell should develope still further and become pointed at each end, it would show that the tumour, of which it was the constituent element, was of a less malignant character, and we come then to the case which, above all others, opened my eyes to the fallacy of a distinct line being drawn between malignant and innocent growths,—a difficulty, however, not hard to surmount to one who had never discovered the peculiarity of the cancer cell; to those, of course, who had such belief a case of this kind afforded a considerable difficulty, for here was an example of a tumour presenting no nucleated cells to the microscope, and yet returning after removal. It was a case, indeed, to add fresh triumph to the microscope rather than disgrace, for the Surgeon, by long clinical experience, had found that a tumour of this kind had as many characters bordering on innocency as on malignancy, that he was fain to look upon it as an intermediate kind of growth, and then calling in the aid of the microscope he discovered that it was composed neither of well formed cells nor of simple fibre, but something between them; a corroboration, if any had been wanting, that a tumour intermediate between the others and of a semi-malignant nature was under notice.

Next to this we may speak of those cases where more of the fibrous element exists, and the tumour consequently less malignant: such as the fibro-nucleated, which often return after removal; also, varieties of this, as the collonema or gelatinous sarcoma, composed of long delicate tendril-like filaments with oval nuclei, and which also are sometimes recurrent—these may be called *soft* recurrent, while those previously spoken of are firm recurrent tumours. The tumours composed of simple fibre like that of areolar tissue are innocent.

Although I adopt the word "tumour," it must be remembered, as I have already said, that this is not a universally applicable term, nor indeed any other expression founded on the relations of a new growth to surgery alone. For example, "recurrent fibroid" is an absurd expression when this class of growth occurs in a stomach or lung, showing that some other appellation is required indicative of its actual structure or its semi-malignant character.

For the sake, then, of simplifying the subject, and that you may retain it better in your minds, I have divided these tumours into the innocent, semi-malignant, and malignant; but you must remember that there are various grades between them in respect to their varieties and their character. And taking these as types, we shall be better prepared to understand most of the other varieties of tumours which replace them under particular circumstances; and beginning with the case of bone, we shall find that various innocent and malignant tumours of an osseous kind correspond to those already mentioned, and which, indeed, probably would have been those very identical tumours had not the presence of bone determined other characters within them.

We shall find, then, that just as lymph effused in contact with bone becomes osseous, so also do tumours in the same vicinity put on a similar character. Thus, cancer of bone often ossifies, and then, what may appear remarkable to some of you, this disease is propagated through the system as bone. What determines the amount of ossification is uncertain; but when it has only partly undergone the change, there are sufficient of the cell elements remaining to indicate the cancerous character of the growth; the most difficult case in which to determine its nature is that where the entire growth appears to have become ossific, as in a remarkable case in the Museum, and which nevertheless was highly malignant,—that is, if malignancy signifies the power of propagation. Sometimes, I say, the cancer may be small in amount, and destroy the bone; in other cases, as in one lately in the Hospital, a soft cancer of the fibula wholly ate away the bone, but at the same time new ossific material was growing in the cancer. In the former case, just mentioned, the deposit took place in the interior of the bone, and became much harder than the original tissue itself, yet the neighbouring glands were bony, and secondary tumours of the same nature occurred in the lungs.

Just also as the cancerous tumour in the soft parts is distinguished from the less malignant or recurrent fibroid by the destructive nature of the one and circumscribed character of the growth of the other, so the same may be remarked when these several tumours grow from bone. The semi-malignant or recurrent fibroid grows as a circumscribed tumour around the bone, not interfering with surrounding parts. Much of the fibre tissue becomes ossified, and then we have a fleshy-bony or osteosarcomatous tumour. As also wherever bone exists we may expect cartilage, so in this variety of growth we may often find an admixture of this substance. The malignancy varies just as the simple fibroid varies, according to the character of the fibre; and thus as occasionally we meet with malignant fibroid tumours, so we now and then have malignant osteosarcomatous. I can show you several examples of this; one a perfect case where, after amputation of the arm from osteosarcoma, the patient died with the same disease developed in the lungs.

The simple fibrous tumour of bone would of course be replaced in the skeleton by an exostosis or enchondroma, both of them innocent tumours ; or in the medullary cavity of the shaft by a myeloid. This name, given by Mr. Paget, is distinctive, and points not only to its nature but its outward aspect; for growing from a centre in the middle of the bone, it assumes a rounded form very characteristic of the disease. It may of course be associated with other elements when a tumour involves a large part of the shaft, but then of course it is not entitled to its own name alone ; in its simplicity it may be called an innocent growth, and in all the recorded cases this has been its character. I can show you, however, an example where it returned on removal, and subsequently tumours of a similar nature sprang up in the lungs ; a case, I think, clearly proving that a tumour which under ordinary circumstances is loath to contaminate the system, may do so under the favouring influence of a long period of time.

Now, take another organ, the female breast ; we find that cancer and semi-malignant growths, as recurrent fibroid, may occur here as elsewhere, but the simple tumour is replaced by the adenocele, a tumour composed of imperfect mammary tissue. Mr. Birkett divides these into classes, according to the amount of simple fibre which may be developed between the gland tissue, and thus they correspond very much to the artificial dissections which may be made of the healthy organ. Just as the latter presents a uniform amorphous mass, until dissected to show its lobes, lobules, ultimate ducts, etc., so in the case of the new growths, all these appearances may be presented according to the amount of connective tissue which is produced amongst the lobules. An interesting and important point to observe is, that occasionally, together with the mammary tissue, the fibre is of the recurrent fibroid variety, and thus a tumour which may be styled simply adenocele, may return in virtue of the other element which it contains, or be developed probably as a secondary growth in the lungs. No case has yet been recorded where the mammary elements have been propagated in distant parts.

(To be continued.)

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CONJUNCTIVITIS PURULENTA—TWELVE MONTHS AFTERWARDS AN OPERATION FOLLOWED BY SHRINKING OF THE GLOBE—AFTER AN INTERVAL OF SEVERAL YEARS INFLAMMATION OF THE DAMAGED ORGAN, EXCITING SYMPATHY OF THE OTHER EYE—EXCISION—RECOVERY.

(Under the care of Mr. HULKE.)

Ann W., aged 27, a healthy-looking woman, was admitted into the Royal London Ophthalmic Hospital on March 15, 1861. Ten years previously she had inoculated her left eye by wiping it with a towel which had been used for an infant affected with ophthalmia neonatorum. Destructive inflammation was the consequence, and twelve months afterwards an operation was performed, which was probably abscission of an anterior staphyloma. The globe shrank, and gave no trouble during the next six years, when it began to be occasionally painful. During the nine weeks immediately preceding her admission into the Hospital, it was the seat of a constant aching pain. When Mr. Hulke saw her, this eyeball was contracted to about one-third of its natural size ; it was squared by the pressure of the recti muscles, and was marked in front by a sunken puckered scar. The conjunctiva covering it was red and œdematous, and the eyelids were puffy. Since the accession of these symptoms, the right eye had become troublesome : it was irritable, soon tired, and often smarted as if some dust were in it. The efferent ciliary veins were turgid, and the choroid was congested. Vision was not yet impaired. Mr. Hulke extirpated the stump ; four days afterwards the wound had nearly healed. The distress of the right eye was already subsiding, and before long completely disappeared.

VIOLENT BLOW ON THE EYE WITH A HEN'S EGG — REMOVAL OF SEVERAL PIECES OF SHELL FROM BENEATH THE EYELIDS.

(Under the care of Mr. HULKE.)

A Polish Jew came to the Hospital on May 3, 1862, with great swelling and redness of the eyelids of the right eye, considerable congestion and œdema of the conjunctiva, and dulness of the cornea. On separating the eyelids, several thin chalky-looking scales came into view, which proved to be pieces of egg-shell, some two or three lines broad. The account given was that on the previous evening, whilst in the street, he felt something strike him on the back, and on turning quickly round he received a blow on the eye from an egg thrown by a boy. The chips of shell were removed with a forceps, four leeches were put to the temple, and a rag dipped in iced-water was laid upon the eye. Four days afterwards his eye had nearly recovered.

ST. BARTHOLOMEW'S HOSPITAL.

PERITONITIS—DEATH—AUTOPSY—CALCULUS IN THE APPENDIX VERMIFORMIS—SLOUGHING OF THE APPENDIX AND PERFORATION OF THE CŒCUM.

(Under the care of Dr. JEAFFRESON.)

James C., aged 18, was admitted on January 12. He was a draper's assistant. He had lived freely and loosely, but was in pretty good general health until four days before his admission. He had been running a great deal, and severe pain in the abdomen followed. For this he took some gin, and next day an aperient, and was for a time relieved, but the pain returned, and became localised to the right iliac fossa On the 13th the following was his condition :—"He lies on his back or side, his limbs being extended ; his respiration is thoracic and hurried, and the movement causes pain ; his skin cool and moist ; pulse 88, sharp and very easily compressed ; lips dry ; tongue covered by a thick yellow fur. He has no appetite, but drinks a great deal. He says that his bowels have been very relaxed, and that his motions have been black and very offensive. The urine is dark coloured, contains an abundance of lithates, and its specific gravity is 1030. The pain he suffers is in the right iliac fossa, and is increased by respiration, cough, or by the slightest pressure. The abdominal wall in this region is hard, but relaxed elsewhere." On the next day, the 14th, he was somewhat better. He had slept better, and his bowels were moved, the motions being dark, and containing some scybala ; his urine was thick and scanty ; his tongue was less furred ; his pulse 80, and compressible. A dose of castor oil was given, and produced a loose motion, with some seybala. On the 15th he was not so well, his countenance was anxious ; pulse quicker, and his skin hot and dry. He had more pain, and had slept less. The next day (the 16th), the pain being still worse, six leeches were applied ; the pain was relieved for a time by the leeches, and he was altogether a little better. He, however, soon after got worse. It is not necessary to give the daily note of symptoms. His pain increased ; he had no sleep ; his pulse became rapid and ultimately thread-like ; and he had constant nausea, and often vomited. He was very thirsty, but could take no food. The pain ceased for some hours before his death, which took place on the 20th, eight days after his admission, and twelve days from the first date of his symptoms.

The post-mortem was made on the 21st of January. The following was the appearance of the parts in the abdomen :—The omentum was drawn down, and was firmly adherent to the large intestines, cœcum, and neighbouring coils of small intestines. The peritoneal surface of the small intestines was reddened throughout, and adherent with recent lymph, especially so towards the head of the cœcum. Around the extremity of the appendix vermiformis a closed cavity was found containing very fetid pus. The mucous membrane of the intestine in this part was swollen, puffy, and of a slate-grey colour, and was covered by very gelatinous mucus. The extremity of the appendix vermiformis had sloughed, and allowed the escape of a calculus about an inch long and a quarter of an inch thick, somewhat the shape of a date-stone. It was composed of concentric layers of soft eretaceous matter over a nucleus, which had the appearance of a small splinter of wood, or a small bone of a fish. There was also a perforation of the cœcum, and as the peritoneal and muscular coats were more destroyed than the mucous, it was supposed that the perforation had taken place from without.

College of Dentists of England.—The Professional dinner of this Institution took place at the Freemasons' Tavern, on Wednesday, July 23, 1862 ; George Waite, Esq., M.R.C.S., in the Chair.

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Medical Times and Gazette.

SATURDAY, JULY 26.

MEDICAL EDUCATION.

We publish every year, at the beginning of the Winter Session, a formal account of all the Medical Schools and Examining Bodies in the Kingdom. But we have often felt that something more would be useful, both to members of our own Profession and to others who have sons whom they purpose to educate for the Medical Profession. The study of Medicine presents altogether a broader field, and requires longer and deeper cultivation than heretofore. A good man is rarely satisfied with one School. At one he may get, by way of foundation, a higher training in the theoretical groundwork of his Profession; at another may have larger opportunities of witnessing practice; at a third may acquire proficiency in some special branch. But all these matters require calculation, and a wise man likes to know beforehand the cost of whatever undertaking he embarks in. We propose, therefore, to give a series of descriptions of the Medical Schools, with fuller details than can be gathered from a mere advertisement. The account of each School will be furnished by some resident thoroughly conversant with it, and will include all points which an anxious parent desires to know—such as the total actual cost of lodgings, diet, and other expenses, and the facilities of obtaining residence with some amount of that discipline which most prudent parents would desire for their children, and the special kind of knowledge which each School is calculated to give. We begin to-day with Oxford, and hope to say something of them all.

Meanwhile, to those who have sons preparing to enter the Profession hereafter we will offer this piece of advice,—Give them a good old-fashioned education; that is to say, a thorough training in Greek, Latin, and Mathematics. French ought to be picked up in a gentleman's family as a matter of course. German may be begun likewise; but the old Latin, Greek, and Mathematics are the foundation of all that is solid and enduring. All the Examining Bodies now require a certificate of preliminary education, testifying that the student has passed either the Matriculation Examination of the University of London, or the Oxford or Cambridge Middle-class Examinations, or else one of the special examinations in Arts, conducted by the Medical Corporations. Of these the Matriculation Examination papers of the University of London are lying before us. They contain questions in Latin, Greek, Mathematics, French (or German—both not required), English Language, English History, Natural Philosophy and Chemistry. Now, we may lay it down as an axiom, that mental training is one thing, useful information another. Mental training *must* be a slow process, and produces abiding results. Useful information may be *crammed* in very little time, and vanish in less. A boy cannot cram Latin and Greek and Mathematics. But we do chance to know a youth who came to town to pass the Matriculation Examination of the University of London, this July, utterly ignorant of Natural Philosophy and Chemistry, and who by dint of cramming "Tomlinson's Introduction," in Weale's series, and a little of Dundas Thomson's "School Chemistry," and by the aid of nine practical lessons at five shillings apiece, was able in nine days to *grind up* Natural Philosophy and Chemistry enough to pass. Such an examination is of course a delirium; nay, it is worse,—it is an official and authoritative indoctrination into the practice of shams. The English language, history, and geography also can all be got up by the aid of a few grinding books. All these things are little better than ornaments of *compo* stuck upon an ill-built house. They exact no habits of plodding, no powers of sifting out truth, and no exactitude. We repeat then, do not let these shams take the place of the solid old education. They can easily be *got up;* but that which is easily got up, can be no part of a solid mental training.

Now that apprenticeship is ceasing, and the novice, instead of entering a Practitioner's family as an apprentice, goes to College as a student, it is incumbent on the parent to give him still the protection which family life affords against temptation, vice, and irregular or slovenly habits. At some of the Medical Schools there are Colleges for the residence of students, under the eye of a Dean or Tutor. This is a point which we strongly advise parents to see to, and if there be no students' residence at the Medical School they may select, they should inquire for some family—that of a Medical man the best—where a home for their son may be obtained. But it will be too late if the consideration of these matters be put off till the first of October.

One is often asked, How far an Oxford education is within the reach of the mass of Medical men? Is it available only to Physicians, a class of men who have generally more than the average of time and money at their command? Or is it to any extent available to General Practitioners, who, as a rule, are less fortunately circumstanced in these respects, but, at the same time, are the class of Medical men in whose quality the public have the largest interest? Having myself graduated in Medicine at Oxford, I am able to place at your disposal a few details of information bearing upon this matter. They may be of some guidance to those of your readers who have sons to educate.

The question, How far Oxford is available for the purpose of general Medical education? will be best answered by stating as nearly as possible the smallest cost, in time and money, of those of its degrees which would generally be the object of the Medical student to attain. I allude to the degrees of Bachelor of Arts, Bachelor of Medicine, and Doctor of Medicine.

(1.) The B.A. degree cannot be taken till the student has completed three years, or twelve terms (which must be terms of actual residence), from the time of his matriculation, and has likewise passed the examinations, four in number, requisite for that degree. The first three of these examinations are in Arts, and the same for all. In the fourth the student has the choice of certain subjects, or "Schools," as they are called,—viz., the School of Mathematics, of Law and History, and of Natural Science. The intending Medical student generally chooses the last of these Schools, and, if he is wise, will not be content with a mere "pass," but will try to take "honours" in it. And this for two reasons: First, the Natural Sciences (Anatomy, Physiology, Chemistry, etc.) are just those which form the basis of his future professional knowledge; secondly, they are departments of science for the study of which Oxford offers great facilities in its New Museum, and strong inducements in the way of fellowships, scholarships, etc. But though three years are the minimum, they are by no means the average of time in which the B.A. is obtained. Of course the student who aspires to honours

in his final examination will have to study longer, and in general defer his degree till he is nearer four than three years' standing. The intending Medical student may, if he likes, instead of taking the B.A. degree, take the corresponding degree or status of S.M. (Studiosus in Medicinâ); but he will none the less have to fulfil all the conditions of residence and examinations which *qualify* him for the B.A.

(2.) The M.B. can be obtained at the end of seven years from matriculation, or four years from the date of passing the last classical examination. For this degree, two further examinations must be passed,—one at the end of the second, one at the end of the fourth year of Medical study. With it is given the licence to practise.

(3.) The M.D. can be obtained after three years more. It merely requires the reading of a Dissertation. There is no examination. The shortest time, therefore, in which the M.D. degree can be got, is ten years from matriculation.

So much, then, for the cost in time which the several degrees entail. Of the cost in money, it is impossible to speak with the same exactness. No two Colleges make precisely the same charges, and in the same College the expenses of its different members will vary widely according to their habits, whether economical or the reverse. The length of the student's career, too, is not the same in all cases. The Oxford University Commission of 1852, with a large amount of evidence before it on the subject, expressed its belief, that few obtain their B.A. degree, including all expenses, under £600. At the same time, there is no question that it may be, and often is, obtained for a much smaller sum. I have before me a minute statement of the Oxford expenses of a Medical friend from his matriculation to his graduation as M.D. I should mention that he was at a College of very good repute, and tolerably (though not one of the most) moderate in its charges; that he lived economically, but not so as to deprive himself of the society of a small circle of friends. The following is a summary of his expenses:—

	£	s.	d.
College and University expenses for four years, *i.e.*, thirteen terms of actual residence and three grace terms, including caution money (£30), together with fees at matriculation and B.A. degree	334	3	9
Miscellaneous, including journeys, clothes, washing, fees to College servants, books, private tuition (£12), amusements and entertainments, loss on furniture, and all other expenses incurred during the same period, except vacation expenses	253	2	6
Expenses of M.B. degree	24	16	0
Expenses of M.D. degree	44	10	0
College and University dues from B.A. to M.D.	22	10	0
	£679	2	3

Now, deducting caution money (which is returned when name is taken off the College books), it will be seen that the B.A. degree was obtained in this instance for £557. But moderate as this sum undoubtedly is, compared with what is usually spent, he *might* have got his degree for considerably less. His bills give evidence of, at least, £30 of needless expenditure. If, therefore, a student enters a cheap College or Hall, and has strength of mind to deny himself all expenses not absolutely necessary, the cost of his B.A. will be still less than the sum just mentioned; how much less it is impossible to say. This will depend on circumstances, especially the length of time to which he may defer his degree, and prolong his residence.

This estimate is made quite irrespective of any assistance he may obtain from scholarships, fellowships, etc. The student of only average attainments and abilities, if he be also industrious and persevering, may fairly calculate on obtaining *some* portion of such assistance, and diminishing his expenses accordingly. However much opinions may differ as to the moral and social advantages which Oxford holds out, these material and tangible advantages of £ s. d., which it offers for competition in almost every branch of study, are certainly unequalled by any University in the world. About a month ago, Sir R. Peel mentioned in the House of Commons the comparative "stimulating force" of Oxford, Cambridge, and Dublin,—meaning thereby "the average annual advantage which each student entering the Universities or Colleges may hope to obtain." Dublin, he stated, has 800 students, with a stimulating force of £28 14s. to each; Cambridge 1600 students, with a stimulus of £68 to each; Oxford 1600 students, with a stimulus of £106 12s. to each!

The prizes which Oxford offers to those who take up the study of Natural Science, either for its own sake or preliminary to the subsequent study of Medicine, are numerous, and some of them of great value. Besides the various scholarships, exhibitions, etc. attached to different Colleges for proficiency in Natural Science, the University offers annually for competition a fellowship, value £200 a-year, and tenable for three years (half of which must be spent abroad), and a scholarship, value £150 a-year, and tenable for two years.

My way now is sufficiently cleared to give some answer to the question with which I started. I think there can be no doubt that an Oxford education is not within the reach of the mass of our Profession. It requires too much time and money. Oxford makes no allowance in favour of those of its students who have to undergo some years of subsequent professional education. It rigidly exacts from *them* the same amount of Collegiate residence and purely classical study as it does from ordinary students. So long as this is the case, the mass of Medical students will be deterred from going there. On the other hand, to go through only part of the curriculum,—*i.e.*, to spend a year or so at the University and then leave, without graduating,—is practically a waste of time and money. The advantage (if any) is more than counterbalanced by the unfavourable construction which the world invariably puts upon such a preceeding. Of a University education, the maxim, *aut totum aut nihil*, is especially true.

THE WEEK.

MEDICAL PERIODICALS OF THE DAY—THE "BRITISH AND FOREIGN," THE "EDINBURGH MEDICAL," THE "AUSTRALIAN MEDICAL," THE "WESTMINSTER."

In a highly interesting and important paper by Dr. Brinton, which appears in the July number of the *British and Foreign Medico-Chirurgical Review*, he maintains some novel views respecting the structure of the glandular apparatus of the stomach in the vertebrate class, and the process of digestion in man and in lower animals. Some years ago, Kölliker showed that the tubes occupying a considerable portion of the stomach in the dog were essentially dimorphous in structure, containing within an external layer of oval "glandular" cells, which fills their lower end, a delicate (and necessarily much narrower) layer of flattish, small, polygonal cells, forming a minutely tesselated single layer. Dr. Brinton finds that this description is applicable among other mammalia to the human stomach, and that in all the axial epithelium (as it may be called) gradually merges, as it ascends the tube, into those columnar cells which occupy the summit of the tube on the free surface of the stomach. This dimorphous structure extends without exception throughout the vertebrate class. Contrary to the accepted doctrine, he affirms that the mucous membrane of the cardiac extremity is thicker than that of the pyloric in the proportion of 5 to 2, the erroneous descriptions of authors depending upon post-mortem changes. In all animals the dimorphous cell growth seems the immediate source, and is certainly the exponent, of the specific power of the stomach in digesting proteinous substances, and in the human stomach the digestive energy of the mucous membrane near the cardiac and the pyloric extremities respectively closely corresponds with the relative amount

of this cell growth, being in proportion more than two to one. As regards the secretion of the two elements of gastric juice, pepsine and acid, he thinks that, notwithstanding the greater acidity of the free than of the deeper parts of the mucous membrane, the two elements are in some way or other derived from associated, if not identical, structures. He suggests that, whatever be its exact details, the preparation of the gastric juice begun in the blind ends of the tubes is only completed at or near their opposite or open extremities, and that, as regards the acid ingredient, the process is far more likely to be the subtraction from a liquid allied to blood liquor, of the materials whose removal would leave the secretion, than any mere construction or addition of this ingredient. It is commonly asserted, that during gastric digestion the pepsinous constituent of the gastric mucous membrane becomes exhausted. In contradiction of this notion, Dr. Brinton asserts that a given weight of mucous membrane from the same part of the same animal effects the solution of the same amount of albumen, whether it be taken from the stomach of a fasting animal or at the end of the digestion of a full meal. In the same number Mr. T. Holmes has a paper on excision of the knee-joint, in which he shows that this operation, instead of having been less fatal than amputation of the thigh, has turned out, in general practice certainly, and in the practice of the London Hospitals most probably, more than twice as fatal, and that in both classes of cases its failure appears to have been more numerous than its successes. He complains bitterly of the lack of reliable statistics to be gathered from the records of the Hospitals.

The March number of the *Edinburgh Medical Journal* contains a curious article, by Dr. Mackay, in which he details several cases of poisoning by goats' milk among the ward-room officers of H.M.S. *Marlborough* while at Malta. Similar cases occurred in other vessels at the same port. The symptoms produced were sudden, extreme faintness, nausea, violent bilious vomiting and diarrhœa,—the attack lasting for five or six hours, and varying in severity in different persons. It appears from his inquiries that the goats are exceedingly fond of a plant which grows on the island, and which being presumed to possess galactagogue qualities, is given by unprincipled tradesmen to the animals when there is an unusual demand for milk. This plant is the Tenhuta of the Maltese, of the genus *Euphorbia*, either the *E. Paralias* or *E. helioscopia*. Dr. Mackay states that so well acquainted are the Maltese with the deleterious properties of this plant upon the milk of the goats, that the Comptroller of Charitable Institutions, in the various contracts he makes for different institutions, binds the milkmen to be especially careful that the goats are not allowed to stray upon pasturage of an unwholesome character. It is said that the milkmen know perfectly when a goat has eaten the Tenhuta, from the appearance of the milk, a small portion of which, poured into the hollow of the hand, and then spread out by the finger, showing yellowish streaks in it. Goats' milk is little used in this country, but the species of Euphorbia mentioned are both included in the "British Flora."

Mr. Tracey has a paper in the *Australian Medical Journal* (April, 1862), in which he proposes to deal with the fluid sewage of Melbourne, by submitting it to a process of ascending filtration. The sewage of the Melbourne Lying-in Hospital is thus treated; the filtering medium consisting of 6 inches of ordinary sized bluestone road metal, on which is superimposed a layer of charcoal in pieces about the same size to the height of 6 inches, next 4 inches of oyster-shells, then 6 inches more of charcoal, and then another layer of 4 inches of oyster-shells. The sewage water thus filtered is said to be bright, clear, and inoffensive. The local authorities, who examined the works, expressed themselves satisfied with the success of the plan. The filter had at that time been in operation for two years without change.

Dr. Barnes narrates in the *Edinburgh Medical Journal* for the present month four cases illustrative of his new method of inducing premature labour at a pre-determined hour. The method is briefly this:—He first dilates the os uteri in the manner practised by Braun, of Vienna. The smallest or medium dilator is introduced into the cervix, care being taken that the terminal bulging part shall pass through the os uteri internum, whilst the inferior bulging end emerges in the vagina. When water is thrown in, the pressure bears upon the whole cervical canal. This stage should not occupy, as a rule, less than three or four hours. If expulsive pains do not now arise, they must be excited by tapping the membranes, replacing the dilator before all the liq. amnii has drained away. If now expulsive action do not arise, either the long forceps or turning must be had recourse to. In the same journal is a suggestive paper by Dr. Ireland, in which he advocates the planting of trees emitting etherial oils, especially the coniferæ, around stations in India, on the ground that they arrest malaria by developing ozone. He ascertained the fact of this formation of ozone by various experiments and observations at Wiesbaden and at Kussouli, one of the Simla group of Himalayan Sanitaria. The subject of *slow* poisoning with oxalic acid receives illustrations from the trial of Mary Struth, before the High Court of Justiciary. A summary of the evidence is given, together with some remarks by Mr. Cowan. The report will be read with interest.

There lies before us a Number of the *West India Quarterly Magazine*, published at Kingston, Jamaica, and edited by Mr. Hugh Croskery, a Surgeon. It presents the curious combination of a Medical and miscellaneous journal. In the number for May, of the present year, the Medical articles are mostly written in a popular style, and are those likely to furnish useful information to the general reader. The *Westminster Review*, just issued, contains an interesting article on the "Dawn of Animal Life," as exhibited in the structure and development of the Protozoa. Professor W. Thomson, of Glasgow, has furnished to *Macmillan's Magazine* a paper on the age of the sun's heat. He discusses in it the secular cooling of the sun, the sun's present temperature, and the origin and total amount of the sun's heat. We cannot profitably condense this or the preceding paper. We content ouselves with directing the attention of the curious among our readers to their existence.

It is our duty to bring under the notice of the Profession Dr. Osborne's method of ascertaining the cooling power of the air by means of a heated thermometer. It has long been felt that the temperature as indicated by the ordinary thermometer gave results very different from those of individual experience; and hence meteorologists, in their estimations of climate, have, among other things, taken record of the winds and atmospheric moisture. But with the best constructed tables, it has been impossible to arrive at a clear idea of the *combined* influence of temperature, wind, and moisture upon the animal system. Dr. Osborne proposes to measure this combined effect directly, by noticing the number of seconds required by a thermometer to fall from 90° to 80°, that is, ten degrees, commencing at about the natural temperature of the surface of the body. The suggestion is practical, and its simplicity should ensure for it ready adoption by Medical men. A paper on the use and application of his method will be found in the May number of the *Dublin Quarterly Journal*. The author thus illustrates the use of his "animal-heat thermometer":—First. It shows the conducting power of air and water, respecting which the ordinary thermometer is absolutely silent. Second. It shows the cooling effects of currents in the surrounding media of air or water. Third. It shows the effects of wind, that most important element of climate, and which is entirely unheeded by the ordinary thermometer. Fourth. It shows the refrigerating effect of air admitted into apartments from open windows. Fifth. It shows to what degree the heat derived from an open fire-place

is accompanied by a cooling process from the current of air rushing towards the fire. Sixth. It shows the cold and heat of climates as actually felt by human beings. The same journal contains an important paper by Dr. Wilmot, upon acute gangrene, consequent upon compound fracture. He especially directs attention to that form of constitutional gangrene which is limited to the deep areolar tissue, and commences around the broken fragments. "The earliest notice that this kind of gangrene has commenced, is given by the wound, on the third or fourth day from the receipt of the injury. The lips pout, are thick, and present a peculiar waxy appearance, and along their margin a narrow vesication arises. There is no suppuration, and the parts would be perfectly dry, if it were not for the escape of some fetid brown serum which wells up from between the broken fragments. At this period there is but little general disturbance; the pulse ranges from 80 to 90, soft, full, and the patient does not exhibit signs of much prostration; the constitutional character, however, of the change that has commenced is shown by the jaundiced hue of the skin and conjunctivæ, which is always apparent, and the irritability of the stomach, accompanied by sour eructations. In less than twenty-four hours from the supervention of the symptoms just described, the patient's fate is decided." To diminish the risk of this form of gangrene arising, Dr. Wilmot believes a most essential point is to reduce the bones as speedily as possible, making the ends smooth and even, and coapting them perfectly; sawing off, if necessary, some portion of the broken fragments. Strict regard should be paid to every circumstance contributing to the general health, and the patient's strength supported by nutriment, wine, and tonics. As to amputation, he regards the operation as worse than useless, unless as a *measure of anticipation*. Among Dr. Gordon's reports of rare cases in the same Number, is a unique case of most extensive fatty degeneration in a badly-nourished boy, 14 years of age. There was scarcely an organ in the body which was not thus affected. The voluntary muscles were involved as well as the internal organs. The fleshy portions of the soleus, with the flexor and peronei muscles were replaced by a substance not unlike rotten sponge, which tore on the least force being used; was of a dark grey colour, and seemed saturated with an oily fluid; it had, moreover, the appearance of boiled meat, fly-blown, or in a very early stage of decomposition, before any discoloration or fœtor have commenced.

SOCIAL SCIENCE.

We have before us six numbers of the *Social Science Review*. This is a weekly newspaper intended for the discussion of the multifarious questions which come under the head of "social" as distinguished from "party" or "political," such as education, the treatment of criminals, the best modes of preserving public health and morals, and statistics. We, for our own part, uphold "social science." It collects facts, and deduces laws relating to that most momentous question, How large masses of people may live together without crime and pauperism? It is a gratifying sign of the times that there is a demand for a paper specially devoted to these subjects. For such a paper to flourish, however, it requires a definite policy, and the rule of one strong mind. But we are sorry to see that "Government" is blamed in No. 2 for not providing means of emigration for the superfluous women of Scotland; whilst, in No. 5, "Government interference" with unhealthy occupations is denounced. There is surely blowing hot and cold here. With reference to "Government interference" the Editor says: "If the Government Inspector can enter a manufactory where arsenic garments are made, and remove the arsenic, surely he may go into Lloyd's or Drummond's and open the windows that the clerks may have air; if he is to enter a tailor's establishment in St. Giles's, by what law is he prevented from warming himself in the kitchens of the West-end hotel or aristocratic club-house?" If the writer were a ratepayer he would at once see why an "official" might interfere—as we are thankful to say they do interfere—with occupations, residences, factories, sale of eatables and the like that tend to cause illness, and throw persons upon the rest of the community. If a nobleman sent a servant to the Workhouse, ill with typhoid fever, contracted in that nobleman's kitchen, there is a machinery in existence by which the facts would soon be ascertained and remedied. When Drummond's clerks come upon the Poor's-rates, the ratepayers will have a right to know why. Liberty will be quite safe, even though the power of using up human slaves be a little abridged.

CONDIMENTAL CATTLE FOOD.

By those of our readers who combine the profession of healing with that of food producing,—who are Bucolic as well as Esculapian in their pursuits,—a paper in the last Number of the *Edinburgh Veterinary Review*, detailing some careful experiments undertaken to test the real value of Thorley's cattle-food, will be found worth reading. Man eats to live, and to obtain pleasure from the process; cows and sheep must eat to get fat, and to remunerate their owners. However useful condiments (excluding salt) may be in the former case, it is by no means certain that any yet discovered subserve the purpose in the latter. Mr. J. B. Lawes, the author of the experiments to which we refer, has proved that, so far from expediting or forwarding in any way the end of feeding, the use of the expensive compound known as "Thorley's Food," produces actual loss to the feeder. Twenty sheep, of equal weight and condition, were subjected to experiment: five were fed daily on ½ lb. of linseed cake, 1 lb. of clover hay chaff per head, and Swedish turnips *ad libitum*; five on the same, excepting that one-fourth of the linseed cake was substituted by an equal weight of the condimental food; five were fed on ½ lb. of cotton cake, 1 lb. of clover hay chaff per head per day, and an unlimited amount of turnips; and five on the same, excepting that one-fourth of the cake was replaced by an equal weight of the condiment. The experiments were continued for twenty-eight weeks, at the end of which time the animals were killed. The result showed that more food is consumed to produce a given amount of increase with Thorley's food than without it, and if the value of the manure yielded by the two kinds of feeding be taken into consideration, by the use of the condiment the owner is still more out of pocket. The comparative loss on the sheep fed with linseed cake and condiment amounted to 6s. 11d. per head; on those fed with cotton cake and condiment, to nearly 8s. per head. It is, therefore, clear that these artificial "aids to digestion" are worse than useless in feeding healthy animals for the butcher. Mr. Lawes allows that in certain cases of old, overworked, and debilitated horses, or in cattle of poor constitutions or of weakly digestive power, they may prove of use, although even here the advantage they possess over other medicinal agents has yet to be demonstrated.

LEGITIMACY.—BOUVERIE *v.* BOUVERIE AND THE ATTORNEY-GENERAL.

A case has lately been decided in the Divorce Court which illustrates the principle laid down by English law that a child born in wedlock has the mother's husband for its father, unless this presumption be rebutted by positive evidence. Formerly it was held sufficient proof if the husband were within the four seas during any part of the time between the conception and birth. Now, positive Medical and moral evidence, one or both, must be adduced to prove illegitimacy. In the case recently decided no Medical evidence was called:

the proof of legitimacy turned upon the facts that it was possible the husband might be the father, and that his relationship to the child had been allowed by him, he having acknowledged the child as his in the presence of many of the witnesses examined. The ground on which the legitimacy was opposed was that the child having been born on the 12th of July, 1836, its mother had eloped with a gentleman in the previous October, and had been absent from her husband's house for ten days. The husband, on her return, restored her to her previous position, and after the birth of the child he frequently spoke of it as his son. He died in the following year. A verdict was returned in favour of the legitimacy of the petitioner, who thus becomes entitled to large property.

CONSUMPTION OF ALCOHOLIC DRINKS.

During the past year it appears that we have consumed more wine and less spirits than in some previous years,—a result, perhaps, partly owing to the higher education and hygienic and moral culture of the population, but more directly due to the greater cheapness of wine since the commercial treaty with France. The total amount of duty on wine and spirits, however, is greater than last year. A return just made to the House of Commons shows that in the financial year 1861-62 the quantity of home-made spirits retained for consumption in the United Kingdom was 19,336,236 proof gallons, and of colonial and foreign spirits 5,112,078 gallons. The quantity of foreign wine entered for consumption here was 9,756,705 gallons. The duty on spirits produced £12,267,600 net; on wine, £1,104,476; an increase upon the whole of £378,128 as compared with 1860-61, but a decrease of £564,825 as compared with 1859-60. In quantity, comparing last year with 1859-60, there was a decrease of 3,148,170 gallons in the consumption of spirits; an increase of 2,484,397 gallons in the consumption of wine.

THE LATE MR. F. H. JOHNSON, OF SUNDERLAND.

In another part of our columns will be found a review of a work on the "Climate of the South of France and the Pyrenees," by the late Mr. Johnson, of Sunderland. This gentleman, who was Surgeon to the Sunderland Infirmary, and who had achieved a considerable Professional and scientific reputation, died at an early age, and left a widow and family but slenderly provided for. We draw especial attention to his work. Our readers, by purchasing and reading it, will themselves receive the benefit to be derived from a clever book, full of amusing and useful information, and will advantage those to whom the author could leave but little besides.

PROFESSORSHIP OF CLINICAL MEDICINE AT UNIVERSITY COLLEGE.

At the Session of the Council of University College, on Saturday last, Dr. John Russell Reynolds was appointed Special Professor of Clinical Medicine to the College, and Physician to the Hospital, in place of Dr. Jenner, who has accepted the Professorship of the Principles and Practice of Medicine in the College, and the Physicianship attached to it. In choosing Dr. Reynolds, the Council have adhered to the principle of electing a gentleman educated and trained in their own School and Hospital.

UNIVERSITY OF MELBOURNE.

We understand Dr. G. B. Halford, Lecturer on Anatomy at the Grosvenor-place School of Medicine, has been appointed Professor of Anatomy, Physiology, and Pathology in the University of Melbourne.

NOTICES OF THE SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

It is my intention in a future Number to refer to two more among the many highly ingenious instruments exhibited by M. Mathieu; but as illustrations of them are necessary, in order that their mechanism and mode of action may be well understood, I must delay any further allusion to them until I am provided with the woodcuts.

I now proceed to call the attention of the Profession to the contents of Mr. G. Ernst's case. This maker, who almost entirely confines himself to the manufacture of orthopædic instruments, exhibits a great many which are remarkable for their ingenuity and excellence of construction. Perhaps in no branch of the subject has greater and more real advance been made of late years than in that which includes the contrivances which have been constructed for the treatment of deformities. That it is possible to retain the necessary amount of strength, and at the same time to reduce the weight of the instrument very much, is now thoroughly understood and pretty generally acknowledged. This is a point which not only materially affects the comfort of a patient, but also has an important bearing on his progress towards either relief or cure. I therefore repeat, that a very great advance has been made of late years in the construction of orthopædic instruments, as far as their lightness is concerned; and I may add also, that a considerable amount of skill and ingenuity are evinced by those makers who devote themselves to this branch of manufacture.

A large number of the instruments exhibited by Mr. Ernst are due to suggestions made by Dr. Little, and among those which I intend to mention I will first allude to his shoes for the treatment of talipes varus and valgus. One of these (A, Fig. 1) has a thumb-screw movement, which brings the motion of the lever and spring opposite to the axis of the ankle-joint. Another (B, Fig. 1) has a new hinged-rack movement that propels the long spring or firm lever, as the case may be, while it also allows partial motion of the ankle. I notice also another form of shoe which is adapted for employment in some complicated cases of distortion of the foot, and which has the three movements of abduction,

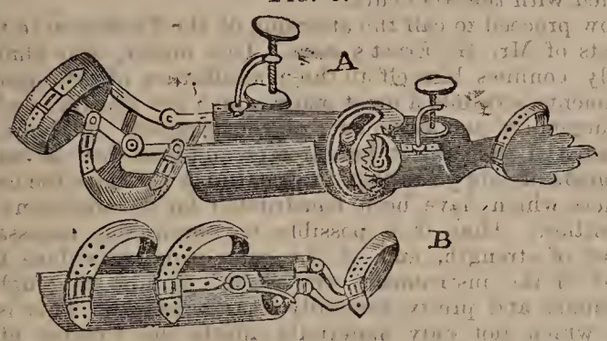
Fig. 1. Fig. 2.

adduction, and rotation. Among the apparatus for the retention and exercise of club-foot, is Dr. Little's walking instrument, to which has been added a spring, which works

against a roller placed below the ankle, and by its constant leverage tends to elevate the toes (A, Fig. 2). The action of this spring is reversed to suit some cases, in which it is advisable to elevate the heel. The second illustration (B, Fig. 2) represents a similar apparatus, with a firm upright bar, and a screw which regulates the stop-joint at the ankle. This arrangement can be attached to an ordinary double-soled boot by means of a snap socket. It is applied to the outer or inner side of the leg, according to the necessities of the individual case, and either a T strap or an instep strap added.

An apparatus, suggested by Dr. Little, for an extreme pronation of the hand which occurred in a case of hemiplegia, is represented at A, Fig. 3. It consists of a steel trough for the

Fig. 3.



reception of the forearm, which is furnished with a rotatory ratchet movement. Two tourniquets, as seen in the illustration, fix the arm securely at their respective positions; and the rotatory mechanism, already alluded to, tends to bring the hand and arm into their relative normal position. The instrument employed by Dr. Little in cases of contracted wrist is shown at B, Fig 3. A light steel trough is destined to receive the forearm, and is furnished at the wrist with jointed stems, to the extremities of which is attached a plate for the palm of the hand. Centripetal springs acting at either side of the wrist-joint upon rollers attached to the stems, before alluded to, produce a constant upward leverage against the depressed hand. The whole instrument is, of course, carefully padded.

An apparatus for the treatment of double contraction of the little toe is represented in Fig. 4. It is furnished with a spring calculated to effect traction outwardly, and a ratchet spring for exerting downward pressure. This apparatus is reversed when required for the great toe. An instrument for remedying contraction of the fingers is shown at Fig. 5. It consists of a well padded plate that fits on to the back of the hand, from which spring five levers, furnished with fourteen rack and pinion joints for the extension of the contracted fingers.

Fig. 4.

Fig. 5.

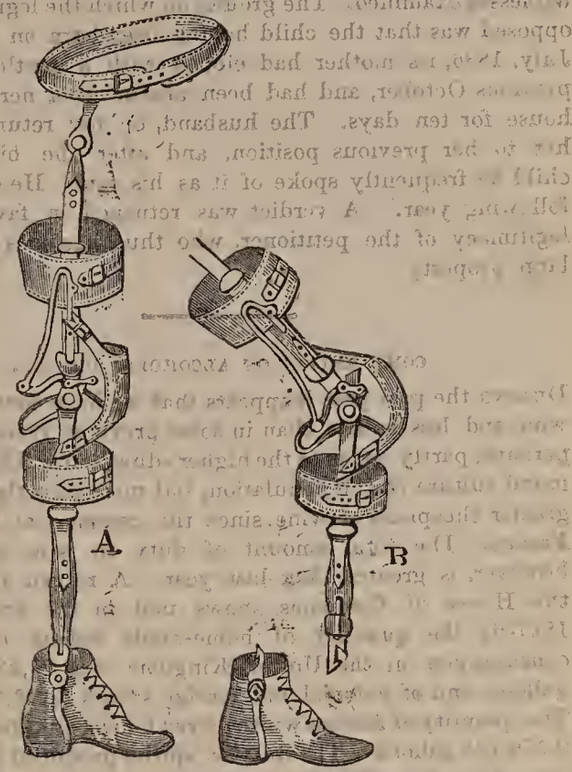
Fig. 6.

Dr. Little's instrument for the relief of that worst form of contracted knee, in which there is inversion and contraction of the joint accompanied by dislocation of the tibia backwards, is shown at Fig. 6. It is provided, opposite the knee, with a screw arrangement, by means of which the tibia is not only brought forward into position, but the whole limb is elongated. For cases of simple contraction of the knee the lateral rack and long screw movements are omitted.

Among the apparatus intended to compensate for the loss of muscular power, exhibited by Mr. Ernst, I may allude to that represented in Fig. 7. The advantages of the gun-lock spring placed opposite to the hip and knee are well tested in some cases of paralysis.

The instrument shown at A, Fig. 7, has the simple gun-lock

Fig. 7.



spring at the knee in combination with the ring-catch, and should have had one delineated opposite the hip, but by some error a ball and socket-joint has been substituted. The ring-catch enables the patient to walk with a stiff knee, if his strength should not permit him to take walking exercise with the aid of the gun-lock spring only. This apparatus also shows a very good plan of elongation above and below the knee, and it has, in addition, a new mode of detaching the boot by means of a ring-catch above the ankle (B, Fig. 7). The great advantage of this plan over other modes of fixing and removing the boot, is its firmness; and, as far as present experience has gone, it is found, I believe, to be remarkably durable and little liable to get out of order. The sockets formerly employed required frequent attention, in order to prevent them from getting clogged, which condition would, of course, render the action of the instrument imperfect. The plan of detaching the boot by a T staple at the ankle answers very well when there is no contraction of the tibio-tarsal joint, and consequently no lateral friction; when this occurs the mechanism soon becomes rickety and insecure. Of all the methods employed for fixing the knee-joint, I think that the "ring-catch" is decidedly the superior, for it is very durable, can be adjusted easily and *at will*, which latter is no small advantage.

Dr. Little's apparatus for the treatment of spinal curvature by mechanical support is shown in Fig. 8. It is intended

Fig 8.

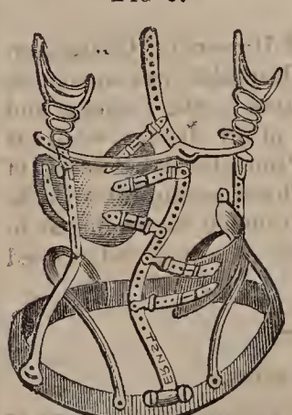
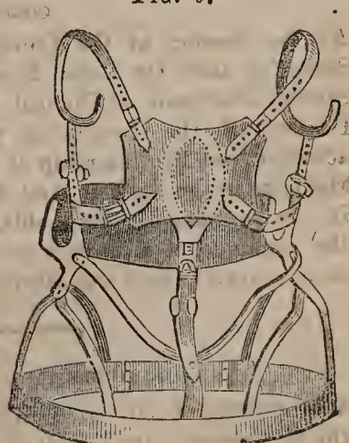


Fig. 9.



for cases of double lateral curvature, and consists of a pelvic

band with hip pieces and slide in front. There are sliding lateral supports, from which spring short levers carrying straps of webbing; these are adjusted loosely or tightly to the posterior lever, as the case requires, and they thus exert the necessary lateral pressure on those portions of the trunk which deviate from their normal position. This apparatus is furnished with the new elliptic crutches, invented by Mr. Ernst, which afford elastic, yet firm, support to the front and back of the shoulder, as well as to the axilla itself. I should add that the lateral supports and posterior lever belonging to this instrument are not fixtures, but allow of partial movement forwards.

The adjoining illustration (Fig. 9) represents an apparatus made by Mr. Ernst for cases of posterior spinal curvature. It consists of the same general parts as that last described, viz., the pelvic band, hip pieces, and slide in front. The posterior lever is furnished with a rack and pinion adjustment below the posterior prominence of the vertebral column, and a metal backboard perforated to avoid rude pressure on the curve. A cross-bar connects the lower part of the posterior lever with the sliding lateral supports, in order to prevent these latter from exerting too much pressure on the ribs; and short levers attached to the lateral supports above the ilium carry the sterno-costal strap.

I shall allude to a few more of the orthopædic instruments exhibited by Mr. Ernst in the next Number.

47, Hans-place, S.W.

REVIEWS.

Mountaineering in 1861. *A Vacation Tour.* By John Tyndall, F.R.S., Professor of Natural Philosophy in the Royal Institution of Great Britain, etc. Pp. 106. London: Longmans. 1862.

Now that the time is coming when most of us are preparing for a vacation ramble, this short account of Professor Tyndall's adventures in 1861 is well worth reading; not only by those who speculate on similar expeditions amongst peaks, passes, and glaciers, but by those who prefer methods of recreation that are safer and more inglorious. There will be found therein four points well worthy of the reader's attention, to wit:—An account of hairbreadth escapes in clambering over crags where scarce a chamois could get a footing, told with a vivid reality that sends a cold chill down the backbone. Many a glimpse into the more recondite phenomena of Nature; whether of the origin, nature, and movement of glaciers, or of certain unknown elements in atmospheric air which absorb portions of the solar rays, or of the conservation of force, and the like. A life-like, self-drawn, pen and ink portrait of the author, himself an ardent and enthusiastic thinker with a slight and justifiable tinge of egotism. All of which are admirable. Throughout the whole, crops up a coldish, materialistic, quasi-Buddhist philosophy which seem like a dreary mist by comparison with the sunshine of the old Christian idea of warm personal relation with our Maker. *Ex. gr.:* "Matter longs for rest; when is this longing to be fully satisfied? If satisfied, what then? The state to which material nature tends, is not one of perfection, but death." There are "Reflections," too, in which Dr. Tyndall takes pains to demonstrate the absurdity of prayer for fine weather and for rain; and ridicules some priest who went annually to pray for the welfare of the mountaineers, that they might enjoy the fruits of their industry, exempt from flood or avalanche. We will not pretend to reconcile the doctrine of Providence with that of Law, any more than Free Will with Predestination; but it is as well to observe that *fiat voluntas Tua* must have formed no small portion of the poor priest's prayer, and that human affections and instincts are often better guides in such matters than the argumentations of the philosopher.

Parturition without Pain. By James Townley, Member of the Royal College of Physicians of Edinburgh, Fellow of the Royal College of Surgeons of England, Fellow and Councillor of the Medical Society of London, etc. London: John W. Davies. 1862. Pp. 56.

We called attention very lately to the too prevalent custom of Medical advertising. We showed that even good books were sometimes so paraded in the public papers as to excite suspicion that something more was meant than the sale of the book, whilst bad books, empty, ignorant, egotistical compilations, appear to have been written in abundance for no other purpose than that of affording means whereby the writer might advertise himself. Whether the book before us—supposing it not to be a malicious hoax—comes under the latter category, our readers shall judge for themselves.

In a work treating of parturition without pain, one would naturally expect that the great discovery of Dr. Simpson would be gratefully acknowledged. Not a bit of it. Dr. Townley uses a little chloroform, diluted with alcohol, and discoloured with a red tincture of nutmeg and clove. So useless is the alcohol, that it has to be squeezed out and got rid of during the inhalation; and yet the author actually claims this as the discovery of a process which is described as "beautiful" and "wonderful." But this is not all. A man may innocently overrate a valuable remedy, or may fancy he has made a discovery, and pompously announce as such what all the world but himself knew long before. But Dr. Townley condescends, like a monthly nurse or midwife, to print and hawk about a dozen puffs or letters testimonial, written, or alleged to be written, by some of "his ladies," as Mrs. Gamp would say. He is not ashamed to print these letters, or alleged letters, in which the writers with various degrees of ignorance, folly, profanity, and indecency, make known the fact that he is the author of a "wonderful," "beautiful," "scientific" "discovery," and that he "has been directed by a gracious God to a means of mitigating severe suffering"! One "lady" writes thus:—

"Incredible as the results may appear to those who have never felt or witnessed your mode of alleviating the pains of labour, the earnest desire of both myself and husband is, that by God's blessing, your valuable life may long be spared, and that you may enjoy the happiness and privilege of being to a constantly increasing number of ladies the means of proving that what has hitherto been considered an impossibility can be done—namely, the birth of a child without any pain or loss of consciousness to the mother throughout the whole of her labour."

Another "lady" says that through Dr. Townley's treatment, "her parts felt as if they were india-rubber." We should conceive that her cheeks, too, and Dr. Townley's as well, were pretty much like india-rubber, and thoroughly vulcanised into the bargain, else they would blush at this indecent mode of advertising a preposterous claim to a discovery of the use of chloroform in labour.

A Winter's Sketches in the South of France and the Pyrenees, with Remarks upon the Use of the Climate and Mineral Waters in the Cure of Disease. By Fred. H. Johnson, M.R.C.S. Eng., L.A.C., formerly President of the Hunterian Society of Edinburgh. Chapman and Hall.

Writers upon climate are of two classes. Those who collect materials from published or unpublished sources, treat their subject upon general principles, and scientifically in accordance with the facts that they may have been able to bring together; while those who having themselves visited, either casually or as prolonged residents, the localities they write about, have something to tell us as the result of personal observation and experience. And of the latter class, perhaps, the most instructive books are written by Medical men who themselves have sought in change of climate relief from maladies to which they are as liable as the rest of mankind. Such persons are interested, and hence keen observers, and tell us of things which commonly escape the pen of an ordinary narrator. The book before us is of this character; it developes the impressions left upon the mind of the writer by a winter's sojourn in the South of France, and details all those experiences of travel which are likely to be useful to others similarly situated. When we say that it is evidently the work of a man of intelligence and cultivated mind, that throughout it exhibits the qualities of good taste and kindly feeling, that the style is enticing, the subject matter interesting, and that it abounds in historical episodes, and with all this, that it contains a good deal of real information in a most readable form,—we have given our chief reasons for recommending the purchase of the work by the general reader, and especially by all who contemplate a visit to the South of France and the Pyrenees. To the last it is an indispensable companion.

The twenty-third chapter, consisting of remarks on the climate and waters of the Pyrenees, is evidently addressed

mainly to the Medical reader. In this section the author furnishes us not only with the results of his own observation, but with the experience of the local Practitioners, upon the particular phases of disease in which a beneficial operation or the reverse may be anticipated. In his preface "the author begs to premise this charitable aphorism :—That a first book like a first baby, should have, by common consent, all its defects ignored. His baby has an additional apology, —that it was the offspring of ill health." We reply that we ourselves labour under the malady of chronic deafness, whenever plied with the *argumentum ad misericordiam*. No appeal of this kind would induce us to withold criticism from a worthless book. In this instance, too, the appeal was unnecessary. We regret, however, most sincerely that it is our painful duty to add that the author of the volume submitted to our opinion is now no more. We shall be glad if we can induce our readers to purchase this work, and to assist Mrs. Johnson in providing for her family.

Essays on Scientific and Other Subjects, contributed to the Edinburgh and Quarterly Reviews. By Sir Henry Holland, Bart., M.D., F.R.S., D.C.L. Oxon., etc. Pp. 500. London: Longmans. 1862.

Whoever would desire a monument of mental activity, will find it in this volume, which is, as the author tells us, the fruits of his leisure and recreation. It consists of several essays which have appeared in the *Quarterly* and *Edinburgh*, relating to some of the most abtruse questions presented by modern philosophy. These were written whilst on his autumn holiday journeys, during which he tells us that in the last twenty years he has repeatedly visited America and the nearer parts of Asia and Africa, to beguile the sense of solitude. "The Progress and Spirit of Physical Science;" "The Philosophy of Life and Organisation;" "Sidereal Astronomy;" "Modern Chemistry;" and "The Natural History of Man." Such are the graver subjects in this volume, diversified by lighter essays on coral reefs, meteors and aërolites, human longevity, the Atlantic and Mediterranean Seas, and the Life of Julius Cæsar. Sir Henry Holland may not unworthily be compared with that Dictator, who amidst his campaigns and journeys wrote his Commentaries, and gave form to the "ablative case." What Sir Henry has written for his recreation, our readers may study for their own.

Praktisches Handbuch über die Vorzüglichsten Heilquellen und Curorte, für Arzte und Badercisende. Von Dr. Otto Ewich. Pp. 787. Berlin: 1862.

Practical Guide to the Principal Spas and Health Resorts, for Physicians and Patients. By Dr. Otto Ewich.

The fertility of French and German literature on mineral waters is astonishing when compared with the few and meagre accounts of them which exist in our own language. The above is a treatise which, while not professing to enter fully into the scientific part of the subject, is chiefly intended as a guide for those who wish to use mineral waters. There is an introduction to the book which discourses very briefly the origin, the chemical constituents, and the physiological effects of the waters; but the body of the work consists of a lexicon of Spas, alphabetically arranged, in which the chief watering-places of Germany, Belgium, and France are described. Our English waters do not appear to have found much favour with Dr. Ewich, who has not even mentioned Buxton, Harrowgate, Cheltenham, Bath, and others of our most frequented spas; but for the majority of the Continental waters his book will be found a convenient means of information. A drawback to it is its lengthiness, which we fear will rather tend to deter a large class of readers from its perusal.

Handbook of Surgical Operations. By Stephen Smith, M.D., Surgeon to Bellevue Hospital. Pp. 279. New York: Baillière Brothers, 440, Broadway. 1862.

This work is intended as a pocket companion for the Volunteer Army Surgeon, and contains a succinct account of the various greater and lesser Surgical operations. It begins with describing the instruments necessary for the Surgeon, the dressing of wounds, suppression of hæmorrhage, use of anæsthetics, and minor operations; after this it describes operations on the arteries, and on the veins; amputations, resections, and gunshot wounds; winding up with a rather meagre half-page on secondary hæmorrhage. The work is confessedly a compilation, and is illustrated by about 250 engravings, which are copied from various works of authority. The descriptions are rather dry, but accurate so far as we have examined them, and may be of use to the class of Surgeons for whom they are intended.

Klinische Mitthcilungen aus dem Gebiete der Gynæcologie. Von Dr. Carl Mayer. Heft I. 4to. Pp. 37. Berlin: 1862.

Clinical Communications on Gynæcological Subjects. By Dr. C. Mayer. Part I. With Four Coloured Plates.

Dr. Mayer, who, with Scanzoni, ranks amongst the most eminent gynæcologists of Germany, and is in very large private practice in Berlin, has in the above treatise given a faithful description of the erosions, excoriations, and ulcerations which occur on the mucous membrane of the cervix and os uteri, and has illustrated the same by four very striking and remarkably well executed coloured plates. Amongst the external remedies mostly resorted to by the author in the treatment of these affections, is the actual cautery, which he considers indispensable for the destruction of excrescences, and for arresting hæmorrhage after the removal of the vaginal portion and neoplasms. Caustic potash is only employed by him if the patients have insuperable objections to the use of the ferrum caudens, the former being rather apt to cause considerable inflammation and ulceration of the tissue of the uterus, which it is very difficult to cure. Dr. Mayer enters into full details on the effects and the use of other cauteries, and a number of external and internal remedies suitable for the diseases under consideration, which, coming from so high an authority, will no doubt be read with much interest by all who make diseases of women a special study.

Handbook of Economic Literature; being a Descriptive Catalogue of the Library of the Twickenham Economic Museum, or Repertory of Useful Knowledge for Everyday Life. Part I. *Domestic and Sanitary Economy.* Pp. 85. C. Whiting, Beaufort House, Strand. 1862.

In what sort of dwellings should we live to secure health and comfort? What are the best clothes to wear, what the best food to eat? How should food be cooked? How may things that are genuine, wholesome, substantial, durable, and really cheap, be distinguished from shams? How, in short, may we get most money's worth for our money? Such are the questions which an Economic Museum teaches how to solve. The library catalogue will be useful to any one who desires to know what books there are which treat of these subjects, and how to select them.

Hæmorrhoids and Prolapsus of the Rectum, their Pathology and Treatment, with Especial Reference to the Application of Nitric Acid; with a chapter on the Painful Ulcer of the Rectum. By Henry Smith, F.R.C.S., Assistant-Surgeon to King's College Hospital. Third Edition. Pp. 141. London: Churchill. 1862.

This is a readable and sensible little book, written by a man who seems thoroughly at home in general Surgery. It shows the results of the writer's experience in the treatment of piles, and may be of service to young Surgeons, if there be any who desire a plain and reliable guide to the most modern treatment of diseases which vexed the ancient Philistines. The remarks on Ulcer of the Rectum are very good.

Prolapsus, Fistula in Ano, and Hæmorrhoidal Affections; their Pathology and Treatment. By T. J. Ashton, formerly Surgeon to the Blenheim Dispensary, etc. Pp. 182. London: Churchill. 1862.

This book is said to be a "practical description of those affections of the rectum which by their frequency more constantly claim attention;" and it has been written "in accordance with the wants of many Practitioners." The diseases treated of are prolapsus, fistula, and piles; the descriptions appear clear, and the treatment judicious; and if any Practitioners are really in need of the A B C of the subject, they may find it here.

Short Abstract of the Diagnosis, Prognosis, and Treatment of the Diseases of the Ear. By William Kramer, M.D. Pp. 55. London: Longman and Co. 1862.

The first twenty pages of this pamphlet are devoted to a summary of the means of investigating morbid conditions of the ear, the use of the ear-speculum and ear-catheter, with the phenomena obtainable by their use in aid of diagnosis. The following brief extract will show the mode in which the several diseases of the ear are discussed:—

"*d. Inflammation of the Periosteum.—Diagnosis.*—Bad, or rather sanious, ichorous discharge from the auditory passage, at the bottom of which caries is discovered by the introduction of the buttoned silver probe. *Prognosis.*—Very unfavourable, as this caries is never cured but by the exfoliation of the bone, followed by complete loss of hearing, and mostly by concretion of the dermoid layer, and complete closure of the auditory passage. *Treatment.*—As long as the discharge continues, syringe daily the ear, and pour in a weak solution of sulphate of zinc made lukewarm. Internally, anti-scrofulous remedies, but with little hope of any success."—P. 24.

We think the pamphlet likely to be acceptable.

FOREIGN CORRESPONDENCE.

RUSSIA.

St. Petersburg, June 15.

THE RUSSIAN HOSPITALS.

Although the Hospitals and benevolent institutions of Russia have been arranged and disposed according to those of Western Europe, they are nevertheless essentially different from these. They have the appearance of barracks, palaces and hotels in one, with large entrance halls and spacious gardens, the best rooms and floors being appropriated to the use of the Council of Directors, officials, Physicians and Surgeons. On the whole, they are cleanly and orderly, and some may even be said to be elegant, being carpeted and decorated with statues of benefactors, etc. On the other hand, little attention is given to ventilation, and anatomical collections are only seldom met with. Special rooms for operations and post-mortem examinations are also rare. Surgery and Pathological Anatomy consequently do not flourish, and in some Hospitals no post-mortem examinations whatever are allowed, in order not to hurt the feelings of the public. Thus the education of students is necessarily of a very imperfect character, and diagnosis and therapeutics cannot be expected to make much progress. A Physician's reputation depends solely upon the circumstance whether his patients die or recover, and orthodox medicine, homœopathy, Rademacherism, hydropathy, somnambulism, herbalism, and a great many other "isms," are looked upon as mere variations of the same species. Many patients try one after the other, or several at the same time. Quite recently, however, in the Marine Hospital and Foundling Hospital Medical men have been specially appointed for making autopsies, and thus diagnosis will no doubt in time be rendered more correct.

Every benevolent institution is provided with a "Curator." Curators are selected from the highest nobility, and are generally military men, for the reason that almost every nobleman is Major-General or General, etc. Thus Count Berg, the late Governor of Finland, Baron Liewen, the present Governor of the Baltic Provinces, Count Strogonoff, Chief Equerry to the Grand Duchess Marie, Senator de Roemer, and other noblemen are Curators of Hospitals and Lunatic Asylums. The Curator has more or less to do with appointments, repairs, and other changes, and he does pretty much what he likes. He is the Chairman of the Committee of Administration, and representative of the Institution altogether. If anything goes wrong, he is expected to set it right again. He gains for the place the patronage of the higher classes and the favour of the Court; in short, he is an indispensable and extremely important personage. Next to him rank the Chief Physician and the Smatritel, or administrator. The latter is generally selected from the legal profession, but this must not necessarily be so; a short time ago a Medical man was for the first time selected Smatritel, to the great disgust of the lawyers and rejoicings of the Medical Profession. He may, in the course of his career, acquire a considerable number of decorations, as well as rank and fortune. He is *adlatus* of the Chief Physician as regards the whole administration, and even the reception and discharge of the patients. The Chief Physician is responsible for the whole of the patients, and the treatment they are subjected to, even if there are a thousand. His position is therefore, of course, very trying. He either fulfils his intructions to the letter, and examines every patient daily, and controls the treatment, which must take up almost his whole time, even if it be done in a very superficial manner,—or he relies on the judgment of his subordinate colleagues, when he ceases to be responsible for every patient singly. Many Chief Physicians reserve to themselves certain wards which they take under their special care, and for which they select patients suffering from certain diseases in which they may happen to take a particular interest. The subordinate Physicians somewhat resemble your House-Surgeons, or the French *internes*. They have to superintend certain wards over which they have a more or less independent control, according to the pleasure of the Chief Physician. Generally they do not live in the Hospital, but are alternately in it for twenty-four hours consecutively (*du jour*). Within this time they are not allowed to leave the Hospital, but have to receive and examine all fresh arrivals, to superintend the execution of extraordinary prescriptions and remedial measures, and finally to report to the Chief Physician, on his arrival, all the events of the day. This is not an injudicious rule as far as regards the Hospital, but scarcely compatible with carrying on private practice at the same time. Where there are few subordinate Physicians, they are obliged to give every third or fourth day to their Hospital duties, while in other institutions their turn only comes every fortnight or three weeks. For rendering their duties as little onerous as possible, the subordinate Physicians exert all the influence they can bring to bear, to procure as many colleagues as possible. There are, therefore, volunteers (not armed with the rifle, but with bistoury and stethoscope) in every Hospital, who do not receive any salary, and are called supernumerary subordinate Physicians. These latter appointments are generally made somewhat indiscriminately, on account of no salary being attached to them. But as advancement and official and ordinary appointments go according to the number of years a man has served, the supernumerary appointments form the stepping-stone to the former ones, and it follows that some Hospital Physicians are wofully deficient in those acquirements which they ought to possess in order to properly discharge their duties.

While in Western Europe special Hospitals are very frequent, we have in Russia not even separate Medical and Surgical wards in our general Hospitals. The advantage of this latter custom is, that Surgical patients are not accumulated in one room, and that every Medical man has the opportunity given him of becoming proficient in Surgery as well as Medicine. The drawback is, that good operators and accomplished Physicians are rare. There are, however, Consulting Physicians and Surgeons attached to every Hospital. These are not empty titles as it is with you, but the men are really consulted by the Chief Physician of the Institution, whenever he deems it necessary. Consulting Surgeons perform operations and visit the Hospitals even without being specially called in; but they have a rather equivocal position, as the patients whom they treat are not really theirs, and their prescriptions may be set aside by the Chief Physician. It therefore sometimes happens that operations are followed by bad results, while they might have been successful if the Consulting Surgeon had been allowed full liberty to do what he pleased. There are special Consulting Physicians for diseases of the heart, the nervous system, etc., and many Hospitals have thus attached to their staff a number of celebrated men who shed lustre over the Institution.

Parliamentary.—On Monday, the 21st inst., the House of Commons went into Committee of Supply. Amongst the votes agreed to were the following:—For Public Infirmaries, Ireland, £2539; for Westmoreland Lock Hospital, £2600; for the Rotunda Lying-in-Hospital, £700; for Coombe Lying-in-Hospital, £200; for House of Industry Hospitals, £7600; for Cork-street Fever Hospital, £2500; for Meath Hospital, £600; for St. Mark's Ophthalmic Hospital, £100; for Dr. Steevens's Hospital, £1300.

GENERAL CORRESPONDENCE.

DIGITALIS IN DELIRIUM TREMENS.

Letter from Mr. Wiglesworth.

[To the Editor of the Medical Times and Gazette.]

Sir,—The accompanying case may be of interest to the Profession, as an instance of the beneficial results obtained from large doses of the tinct. digitalis in a case of low delirium tremens. Mr. W. called upon me at 9.30 a.m. on May 30. He had been drinking very freely both of spirits and ale for some weeks, and had now got into a nervous, depressed condition. He had been very restless the previous night, frequently getting out of bed and looking under it and in the closet, imagining that some one was on the watch to do him harm. His present deception is that the "Devil is dead," but it does not seem to cause him any satisfaction. He converses at times quite rationally, and describes his symptoms with accuracy. His appearance is wild and nervously apprehensive; whilst speaking he is looking continually about the room as if for an unseen enemy. Pulse 120, soft and very compressible; tongue coated; bowels freely open from an aperient draught. Much pain in the head, and conjunctivæ much injected. Took two grains of morphia last night, given him by a druggist, which produced no effect. Has had no continued sleep for some days. Ordered ʒiv. of tinct. digitalis, to be taken immediately. I visited him at 11.30 a.m. I found him much quieter; about to eat a "fried kidney!" Still there was the look of acute nervous apprehension. Pulse 110. Ordered the digitalis to be repeated at 3 p.m. At 6 p.m. his wife called upon me. She stated that shortly after I left he became much worse, wandered about the house, broke several articles of furniture, threatened to murder her, and kill himself. At last he got a cab and drove to the Lunatic Asylum, and from there to the Workhouse. He ultimately arrived home at 4 p.m., at which time he took the second dose of tinct. digitalis. When his wife left him he was much quieter, and inclined to doze. She left him in charge of an attendant. I directed that if he should not sleep soundly before 11 p.m. the dose was to be repeated. On visiting him at 11.30 a.m. on the 31st, I found him just coming down stairs. He had slept for about one and a-half hours after the second dose, but then got up and walked restlessly about the house, and was getting excited again when it was time for the third dose, after which he fell asleep and slept some hours,—awaking for a short time, taking his breakfast, and then falling asleep again. He had just awoke again when I called. I found him perfectly rational, and he conversed quietly about his attack. There was a slight amount of tremor, but not much. Tongue still coated. Pulse 90. The nervous look had quite disappeared. He suffered slightly from headache for some days, which he attributed to the morphia and from dyspeptic symptoms, but in other respects he was quite well.

I am, &c. Arthur Wiglesworth.

78, Brunswick-road, Liverpool, July 8.

A BINOCULAR OPHTHALMOSCOPE.

Letter from Mr. J. Z. Laurence.

[To the Editor of the Medical Times and Gazette.]

Sir,—It was my friend Dr. Giraud-Teulon, of Paris, who first perceived the advantages of a binocular ophthalmoscope over the monocular ones in general use. He took a large concave mirror and scratched off the metallic back-coating in a horizontal line of about 1½ inches across, and about ⅜ inch breadth. But with this instrument he found that the general result of its binocular use was that the person saw the papilla optica and other parts of the fundus double. "By a continued and persistent effort of exaggerated convergence, one may succeed at last in fusing these two crossed images." ("Physiologic de la Vision Binoculaire." Paris: 1861. P. 678.) Dr. Giraud-Teulon finding for this and other reasons, which he adduces, the practical inutility of such an instrument, devised an ophthalmoscope, in which by two respective total reflections from a pair of glass rhombs, the aërial image of the fundus oculi, formed in front of the objective, was doubled, and the two images then made to coalesce by a pair of Brewster's prisms. This instrument (of which a description may be found at page 679 of the work before cited) is very complicated; so much so, that several eminent Ophthalmic Surgeons in this country have given it up in despair. This, however, I think going too far, as with a little personal instruction from its inventor, I am able to manage the instrument very well.

It is to bring before the notice of the Profession a binocular ophthalmoscope of my own that I have penned these few lines.

It consists simply of a concave mirror of about the size of that used for examining the throat. This mirror has two eye-holes, through which the observer looks. It differs also from that of the ordinary ophthalmoscope in having its apertures lateral, instead of central. Thus the centre of the mirror is taken advantage of instead of being lost for reflecting purposes. With this instrument I observe quite as much relief ("stereoscopic effect") as with Dr. Giraud-Teulon's more complicated one. My ophthalmoscope leaving each eye its natural play, does not fatigue the observer like the ordinary one, to use which most persons are obliged to close one eye. On account of the large reflecting surface, a circle of diffusion is obtained much superior in size to that by the ordinary instrument. I have not yet had sufficient time to study the different properties of the instrument fully; but for the present merely recommend it for the simplicity of construction, by which the great desideratum of binocular vision is obtained.

In using my binocular ophthalmoscope, the light must be placed *above* the patient's head, in a line with the eye to be examined. I think experience will prove my instrument to be exactly as superior to the monocular one as vision with two eyes is superior to that with one.

It may be had at a trifling cost of Messrs. Weiss, who at my wish are also adapting eye-pieces to the two apertures for the purpose of viewing the direct image, etc.

I am, &c. J. Zachariah Laurence.

July 21.

IDIOCY AFTER DIFFICULT PARTURITION.

Letter from Dr. Arthur Mitchell.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read Dr. Ramsbotham's letter with much interest and attention, but it does not appear to me that he has stated anything which materially weakens my conclusions.

We approach this inquiry from opposite points, and I think it will be conceded that I am in the more favourable position for arriving at the truth. While investigating the causes of idiocy, I ascertain the circumstances of every patient's birth, and thus determine if the relation of cause and effect appears occasionally to exist between difficult or anomalous parturition and mental weakness. Dr. Ramsbotham, on the other hand, knows the circumstances of birth, that parturition has been anomalous, but the after condition of the children he can only know in a few cases. Both become known to me,—indeed, it is my object to make it so, in order that I may determine the frequency of the coincidence and examine the character of the relation.

I feel confidence in assuming that an Accoucheur in large practice anywhere, but especially in a city like London, would not be able to keep under observation up to puberty more than a small per-centage of the children whom he delivers by forceps.

My opinions on this subject are formed after the examination of between two and three thousand idiots and imbeciles. The research, however, in its entirety, though made with care, is in some respects defective. I therefore confined myself to the 554 cases examined consecutively and with this object, the history being carefully sifted in every instance, and precision always aimed at. Against this Dr. Ramsbotham adduces the results of his experience, but no true comparison can be made till he gives a fuller and more exact detail. He tells us that "a very small proportion" of the 408 children whom he delivered by forceps were dead born, that he has "not been made acquainted with" a single imbecile among the survivors, and that he has watched "many" of them in their growth up to puberty. "Few" and "many" are always unsatisfactory statistical estimates, and have no precision. Thus, there may be idiots among the survivors, though he has not been made acquainted with them. In my opinion, this is very probably the case. If it be not so, and if Dr. Ramsbotham doubles his experience with the same result, we should almost be led to regard delivery by forceps as an advantage.

With reference to the bald patches or cicatrices which occurred in nine cases, and which I regarded as attesting the use of instruments, I can only say that such was their historical origin, that I still regard them in that light, and that I believe Dr. Ramsbotham would hold the same opinion if he had examined them.

That treatises on midwifery contain little to bear out my views is certainly true. I have myself called attention to the absence of information on the subject. These works, however, contain nothing opposed to my opinions. On the contrary, they support the *à priori* argument; and from the discussion at the Obstetrical Society here, at the reading of my paper, some months ago, I think many Accoucheurs will feel inclined to admit the probable accuracy of my views.

In conclusion, it must be remembered that many of the 554 idiots were born in remote and inaccessible localities. I need not point out the bearing of this remark.

I am, &c.

Edinburgh, June 21. Arthur Mitchell.

REPORTS OF SOCIETIES.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Friday, May 2.

Dr. Fincham, Vice-President, in the Chair.

At the Annual Meeting, held on May 2, the following officers for the ensuing session were elected:—*President:* Dr. Barclay. *Vice-Presidents:* Mr. Leggatt, Mr. J. Lane, Mr. Cumberbatch, Dr. Baines. *Council:* Mr. Scannell, Dr. Cahill, Mr. G. D. Pollock, Dr. C. G. Brown, Dr. Anstie, Dr. Stacpoole, Dr. Love, Mr. Bannister, Dr. Fuller, Mr. P. Hewitt, Mr. Godwin, and Mr. Rouse. *Treasurer:* Mr. Cumberbatch. *Honorary Secretaries:* Mr. Milner, Mr. C. Hunter. *Honorary Librarian:* Mr. T. Dickinson.

A Paper, by Mr. G. D. Pollock, was read on

CASES OF OBSTRUCTION OF THE BOWELS.

In commencing this highly important subject, which had long been a question of investigation by the author, those cases of mere costiveness and constipation were first eliminated, leaving for consideration those of stoppages of the bowels arising from accident from without or from mischief or malformation from within. Mr. Pollock then drew attention to the various causes of obstruction of the bowels, which from experience he had found to prevail at different periods of life—First, in early life; second, in middle life; third, in advanced age. In the extremes of life he particularly remarked that the causes were very distinct. In the first period the causes consisted of intussusception, congenital malformation of intestine, diverticulæ with peritoneal adhesions, ulcerations terminating in fæcal abscess, and foreign bodies introduced. Each of these were separately dwelt upon and illustrated by cases. The Author especially specified the symptoms of intussusception, viz., tenesmus, the passage of mucus and bloody watery discharge, distinguishing it from internal strangulation, in which the bowel is quiescent and inactive. These diagnostic symptoms he thought pointed to treatment; for in the former case the administration of opium almost to narcotism was urged, while in the latter operative interference might at once relieve the strictured intestine. The mode in which a portion of the intestine became strangulated by the accidental adhesion of a diverticulum to a part of the omentum or mesentery, forming a loop or ring under which it passes, was described at length, and some interesting cases were related. Obstruction of the bowels at this period was also often found to be the result of general peritoneal adhesions arising from the deposit of tubercle, and outlets were often formed to the relief of the patient in either inguinal regions. The large intestine was chiefly involved in fæcal abscess. One case was related of fæcal abscess resulting from ulceration of the appendix from the lodgment of foreign bodies in it. It began with sudden obstruction, and proved rapidly fatal. Of foreign bodies introduced, the author mentioned cases of obstruction caused by eating hair, string, slate-pencils, cork, and sponge. The most frequent causes of obstruction in middle life appeared to be—1st. Tumours or growths external to the intestine, producing pressure or thickening of the walls, these tumours being chiefly connected with the organs of generation, especially of the female. In one case the cause arose from a large fibrous tumour of the uterus, and in another from an ovarian cyst. 2nd. Bands the result of effused lymph, or adhesions of omentum, appendices epiploicæ, or omental openings or mesenteric pouches. 3rd. Intussusception generally of small intestine, the result of mechanical irritation. Two instances of this latter cause were mentioned one from a lumbricus adhering to the mucous membrane, the other the result of a tumour. 4th. Internal tumours. 5th. Calculi the result of biliary concretions or intestinal concretions, and substances swallowed accidentally or as food. Cases were mentioned of oatmeal used as food, forming the concretion, of chalk, sulphur, magnesia, cubebs, mustard seed, and sesquioxide of iron. Fruit-stones were frequently a source of considerable mischief. 6th. Simple stricture arising from an inflamed and thickened condition of the bowels after an operation for strangulated hernia; the result of ulceration of the bowel attendant on fever, and after tropical dysentery. 7th. Twisting of the intestine, a free mesocolon, mesocæcum, or mesentery for the sigmoid flexure, being an essential condition. In advanced age the chief causes enumerated were from stricture, generally from cancerous deposit, but sometimes from inflammation or from syphilitic or strumous disease, these occurring in all parts of the intestine. In conclusion, Mr. Pollock discussed the treatment for all these various forms of obstruction of the bowels, advocating the necessity of care and circumspection, of being sparing of all active measures, and of trusting to opium rather that any other drug. When operative proceedings were entertained, they should not be deferred too long, and in stricture of the large bowel the loin was the part to be selected for its relief.

MEDICAL NEWS.

Royal College of Surgeons of England.—A notice appeared in the *Gazette* of Friday last that the following are the Hospitals and Schools of Surgery and Medicine from which Certificates of Professional Education for the Fellowship will be received for 1862-63:—

Hospitals.—London.—St. Bartholomew's, St. Thomas's, Westminster, Guy's, St. George's, London, Middlesex, University College, Charing-cross, King's College; St. Mary's, Paddington. English Provincial.—Bath United Hospital, Bedford General Infirmary; Birmingham—General Hospital, Queen's Hospital; Bristol Infirmary; General Hospital; Cambridge—Addenbrooke's Hospital; Derbyshire General Infirmary, Devon and Exeter Hospital, Gloucester General Infirmary, Hants County Hospital, Hull Infirmary, Kent and Canterbury Hospital, Leeds General Infirmary, Leicester Infirmary; Liverpool—Royal Infirmary, Northern Hospital, Southern Hospital; Manchester Royal Infirmary, Newcastle-upon-Tyne Infirmary, Norfolk and Norwich Hospital, Northampton General Infirmary, Nottingham General Hospital; Oxford—Radcliffe Infirmary; Salisbury General Infirmary, Salop Infirmary, Sheffield General Infirmary, Staffordshire General Infirmary, Sussex County Hospital, Worcester Infirmary. Dublin.—Richmond, Dr. Steevens's, City of Dublin, Mercers, Meath, Jervis-street, St. Vincent's, Adelaide. Irish Provincial.—Belfast General Hospital; Cork—North and South Infirmaries; Galway—County Infirmary and Town Hospital. Edinburgh.—Royal Infirmary. Scotch Provincial.—Glasgow Royal Infirmary, Aberdeen Royal Infirmary. Schools.—London.—St. Bartholomew's, St. Thomas's, Guy's, St. George's, London, Middlesex, University College, King's College, Westminster, Charing-cross, Grosvenor-place, Kinnerton-street, St. Mary's. English Provincial.—Birmingham—Royal School of Medicine and Surgery, Sydenham College; Bristol—Old Park Medical School; Hull and East Riding School of Medicine, Leeds School of Medicine, Liverpool Infirmary School of Medicine, Manchester Royal School of Medicine and Surgery, Newcastle-upon-Tyne College of Medicine, Sheffield Medical Institution, York School of Medicine. Dublin.—Royal College of Surgeons, Trinity College, Apothecaries' Hall, Carmichael School of Medicine, Dublin School of Medicine, Original School of Medicine, Peter-street, Cecilia-street Medical School, Dr. Steevens's Hospital. Irish Provincial.—The Queen's Colleges of Belfast, Cork, and Galway, the several Schools recognised by the Royal College of Surgeons in Ireland. Edinburgh.—University. Scotch Provincial.—Glasgow University. Aberdeen.—King's College, Marischal College, and University. The several Schools recognised by the Royal College of Surgeons of Edinburgh. Schools and Hospitals in the British Colonies.—The Medical Colleges of Bengal and Madras, the Grant Medical College of Bombay, the Church University of Toronto; Melbourne Hospital, Australia. In Foreign Countries.—Paris, Montpellier, Strasburg, Berlin, Vienna, Heidelburg, Bonn, Göttingen, Wurzburg, Leyden, Liège, Pavia, Pisa, Stockholm, Copenhagen, New York, Philadelphia, Harvard University, Boston.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a Meeting of the Court of Examiners on the 22nd inst., and when eligible will be admitted to the Pass Examination:—

Messrs. Frederick Dale, Joseph Brampton Wright, George Fox

Grosvenor, John Whitely, John Pratt, Thomas Thyne, and George Bishop Cornish, students of Edinburgh; Edward Charles Anderson and Francis Molineaux Fawcett, of King's College; Walter Llewellyn Nash and Charles James Wills, of St. Bartholomew's Hospital; Thomas William Wasdale Watson and John McKenzie, of the London Hospital; James David Charles Whiting, of St. George's Hospital; Richard Barter and Edward Webber Warren Meyrick, of Cork; John Priace, Calcutta; Samuel Haigh, of Leeds; John Green, of Hull; John Baird, of Dublin; George Gill, of Liverpool; Richard Jackson, of Birmingham; Henry Wilson, Glasgow; John Pooley, Guy's Hospital; Thomas Langston, Charing-cross Hospital.

Passed on the 23rd inst.:—

Messrs. Charles John Denny, David Evans, Richard Fennelly, William John Ready, and John Kendrick Wynne, students of Dublin; George Renton, Archibald Henry Foley Cameron; Ninian Alexander Williamson, and Robert Whittington Lowe, of Edinburgh; John Thomas Jones, of Glasgow; Robert Charles Moon, of St. Bartholomew's Hospital; William Moon Rogers, of University College; William John Wey, of Middlesex Hospital; and Walter Thomas Beeby, of Guy's Hospital.

Passed on the 24th and last day:—

Messrs. George Wyatt Sharp, James Mortimer Fuller, and Henry Arnott, of the University College; William Murr Pettinger, Fitzherbert Dermott, and George Gregson, of the Grosvenor-place School; George Starling and Charles Handasy de Carrer, of Guy's Hospital; Thomas Arthur Wood and Edward Rutherford, of Edinburgh; John Henry Edwards, of Dublin; Edward Drummond, of Aberdeen; and James Murray, of Belfast.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 17, 1862:—

Thomas J. Biddle, Army Medical Staff, H.P.; Robert Conrad Mossman, Devonport; George Charles Henry Hichings, 3, Oriel, Oxford; Baynes Reed, Lock Hospital; Henry Waghorn, 34, Soho-square; Caleb Samuel Hilton, 36, Trinity-square, Boro'; Thomas Britton, St. Thomas's Hospital.

The following gentlemen also on the same day passed their First Examination:—

Charles Beviss, Frederic Morley, and Richard Prior Wintle, St. George's Hospital; Francis Drake Pearce, St. Bartholomew's Hospital; Owen Gunbly, and John Palmer Way, St. Thomas's Hospital; Albert Weaving, Frederick H. Alderson, George H. Clifton, and Thomas Lucas, Middlesex Hospital; Arthur Evershed, Guy's Hospital.

APPOINTMENTS.

BROWNE.—Samuel Browne, L.K.Q.C.P. Irel., M.R.C.S. Eng., Surgeon, R.N., Surgeon to the Belfast General Hospital, and to the Belfast Ophthalmic Institution, has been elected one of the Vice-Presidents of the Ulster Medical Society, Belfast (a Society recently formed by the amalgamation of the Belfast Medical Society and the Belfast Clinical and Pathological Society).

DAVIES.—John Davies, Surgeon-Major half-pay, has been elected Surgeon to the Cheltenham and Gloucestershire Ophthalmic Infirmary, *vice* Mr. Jessop, deceased.

FERGUSON.—John Creery Ferguson, A.M. and M.B. Univ. Trin. Coll. Dub., Hon. F.K.Q.C.P. Irel., Prof. Pract. Med. Q. Coll. Belfast, Examiner in Medicine Q. Univ. Irel., and Physician to the Belfast General Hospital, has been elected President of the Ulster Medical Society.

GORDON.—Dr. William Gordon has been appointed Deputy-Medical Officer for No. 1 Old Swinford District of the Stourbridge Union, Worcestershire.

GRAVES.—Henry Graves, A.B. and M.B. Univ. Trin. Coll. Dub., F.R.C.S. Irel., L.M. Dub. Lying-in Hospital, has been elected one of the Vice-Presidents of the Ulster Medical Society.

MICHELL.—George Michell, M.R.C.S. Eng. and L.M., L.S.A. Lond., has been elected Public Vaccinator for the Gwennap and Stithiam District of the Redruth Union, Cornwall.

NEWBOLD.—Edward Thomas Newbold, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Macclesfield District, and the Workhouse and Fever Hospital of the Macclesfield Union, Cheshire, *vice* William Loney, M.R.C.S. Eng., L.S.A. Lond., resigned.

PEARL.—Edward Pearl, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the Windsor District of the Windsor Union, *vice* Geoffrey Pearl, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

SCOTT.—William Scott, M.D. St. And., F.R.C.P. Edin., F.R.C.S. Eng., L.K.Q.C.P. Irel. and L.M., L.M. Anglesey Hosp., has been elected one of the Vice-Presidents of the Ulster Medical Society.

SOMERVILLE.—Walter Somerville, M.D., has been appointed successor to the Hon. John Young, M.D., Belize, British Honduras.

WHEELER.—Thomas Kennedy Wheeler, M.D. Q. Univ. Irel., L.R.C.S. Edin., L.A.H. Dub., has been elected one of the Vice-Presidents of the Ulster Medical Society.

WILLIAMS.—Edward Williams, M.D. Cantab., has been appointed Hon. Physician to the Asylum for Idiots, Essex Hall, Colchester.

WOOD.—William Wood, M.D., M.R.C.P. Lond., M.R.C.S. Eng., and L.S.A., has been appointed Physician to St. Luke's Hospital, *vice* Dr. Sutherland.

WORDSWORTH.—John Cawood Wordsworth, F.R.C.S., Assistant-Surgeon to the Royal London Ophthalmic Hospital, has been appointed Surgeon to that Institution, *vice* Alfred Poland, F.R.C.S., resigned.

DEATHS.

DANIEL.—July 17, at Trinity-terrace, Southwark, John Evan Daniel, of Swansea, Medical Student.

PROWSE.—July 7, at Torpoint, Cornwall, J. Prowse, Surgeon, aged 61.

ROCHE.—July 16, Nicholas W. Roche, of Queen-square, Fermoy, County Cork, Surgeon R.N., on the retired list (seniority February 27, 1813), aged 76.

SANG.—July 11, William Burnup Sang, of Charlotte-square, Newcastle-upon-Tyne, M.D. Univ. Edin., M.R.C.S. Eng., aged 27.

SKOULDING.—July 6, Charles Hackett Skoulding, of Wymondham, Norfolk, M.R.C.S. Eng., aged 58.

TURNER.—May 7, at Wellington Harbour, New Zealand, William A. Turner, Assistant-Surgeon R.N., May 22nd, 1851, Assistant-Surgeon H.M. steam sloop *Harrier*, 17 guns, October 30, 1860.

LONDON GAZETTE.

July 18.

18TH HUSSARS.—Surgeon-Major Melville Neale, M.D., who retires upon half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals; dated July 18, 1862.

Surgeon Henry March Webb, M.B., from the 12th Foot, to be Surgeon, *vice* Neale; dated July 18, 1862.

2ND WEST INDIA REGIMENT.—Staff-Surgeon Curtiss Martin to be Surgeon, *vice* Waldegrave Rock Thompson, M.D., placed upon half-pay; dated July 18, 1862.

CEYLON RIFLE REGIMENT.—Surgeon Henry Lionel Cowen, having completed a period of twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of October 1, 1858; dated June 17, 1862.

MEDICAL DEPARTMENT.—Assistant-Surgeon William Hillman, from the 6th Foot, to be Staff Assistant-Surgeon, *vice* Walsh, placed upon half-pay; dated July 18, 1862.

The surname of the gentleman appointed a Staff Assistant-Surgeon in the *London Gazette* of May 16, 1862, is Belemore, and not Bellmore, as previously stated.

2ND ADMINISTRATIVE BATTALION OF DERBYSHIRE RIFLE VOLUNTEERS.—Robert Docksey Goodwin, Esq., to be Surgeon; dated July 14, 1862.

There are no Medical Appointments in the *London Gazette* of July 22.

THE ASTLEY COOPER PRIZE.—This prize of £300 has again been awarded to Dr. Edwards Crisp, M.R.C.S. Eng., of King's-parade, Chelsea, by the Physicians and Surgeons of Guy's Hospital, for his essay on the Anatomy, Physiology, and Pathology of the Human Pancreas.

THE LATE MR. PITTARD.—Mr. Stone, of the College of Surgeons, wishes us to announce that he has just received the following additional subscriptions in aid of the fund now collecting for the benefit of the widow and eight children of Mr. Pittard, of the University, Sydney, viz.:—Dr. Francis Bissel Hawkins, of Sewell Lodge, Dorchester, £5; Professor Halford, of the University of Melbourne, £3 3s.

RECOGNITION OF THE AMERICAN SURGEONS AS NON-COMBATANTS.—At last this rational proceedure has become adopted by both armies. Had it been, truly observes the Editor of the *American Medical Times*, their policy from the commencement of the war, a vast amount of human suffering would have been saved, as the Surgeons would have continued their labours among the wounded, regardless of the immediate results of the battle.

THE CURRAGH CAMP.—A writer in the *Times* says:—"It has been written '*Dulce et decorum est mori pro patriâ*,' but this does not refer to dying of consumption or rheumatism from the effects of a mock campaign on the Curragh of Kildare. Of what avail are soldiers' libraries, institutes, etc., if a man gets wet through before he can reach them, and is wet through again returning to his tent, where he has no means of drying himself? I may also mention another thing. A great deal has been written and spoken with regard to the improvement of the moral condition of the private soldier, and no doubt food for the mind in the shape of libraries, reading-rooms, etc., is a very good thing; but I think the general opinion of the soldiers themselves is, that if the money laid out in food for their minds were expended in giving them an extra half-pound of meat, it would do them a great deal more good."

DEATH OF DR. RICHARD EVANS.—Dr. Richard Evans of Hertford, was one of three brothers, whom their mother bore at a single birth, and all of whom survived. One took holy orders, and the two others entered the Medical Profession. Dr. Richard Evans many years ago took up his residence in Hertford, and, with his brother, Dr. John Evans, has long been counted amongst the most worthy and honoured of the inhabitants of the town. He was the Medical Officer of Christ's Hospital, and occupied the same post at Haileybury College when that establishment was in the hands of the East India Company; and for more than a quarter of a century he had given his gratuitous services as one of the Medical Officers of the General Infirmary at Hertford. In recognition of the services thus rendered by him, the friends and supporters of the Infirmary two years ago presented him with a testimonial, consisting of a silver inkstand, a silver tea and coffee service, and a massive salver, which bore the following inscription:—"Presented with a tea and coffee

service, inkstand and other plate, by public subscription, to Dr. R. D. J. Evans, as a token of respect and gratitude for his invaluable services during a period of a quarter of a century, as an Honorary Medical Officer to the General Infirmary at Hertford. May, 1860." Dr. Evans filled the office of vicar's churchwarden in the parish of All Saints, and for some years past had held the honourable position of one of her Majesty's Justices of Peace for the borough of Hertford. In Professional and private life he was respected and loved for the integrity of his character, and the kindness of his disposition and manners. His death will be felt as a public loss in the town and neighbourhood of Hertford.—*Hertford Paper.*

Testimonial to J. Tomes, Esq., F.R.S.—For some time past there has been a feeling on the part of several dentists that the exertions in the cause of this profession made by Mr. Tomes should meet with some acknowledgment. His works on Dental Surgery have obtained great favour, and are held in high estimation as the result of close thinking and practical knowledge. But it is well known that he has for a considerable period used very strenuous efforts to obtain for the Dental profession the formal recognition of the Legislature. The recent licence conferred by the Royal College of Surgeons on dentists passing the new Board of Examiners is mainly attributable to him and a few of his immediate friends in the Council of the College, and these, with other circumstances, have induced a number of his fellow-practitioners to subscribe to a testimonial. On Wednesday, July 16, a dinner, presided over by S. Cartwright, jun., Esq., M.R.C.S, L.D.S. Eng., was given, and the chairman, in a very complimentary address, presented Mr. Tomes with a service of plate, consisting of a massive silver tea and coffee service, with a centre piece, by Garrard, mounted on a stand, which bore on a shield the following inscription:—"Presented to John Tomes, Esq., F.R.S., by several of his brother-practitioners, in acknowledgment of the many valuable services he has rendered to his Profession. July 16, 1862." In accepting this handsome gift, Mr. Tomes made allusions to the part he had taken in the late movement, and assigned his reasons for so doing, which appeared to be justly appreciated by those present, who received his remarks with loud cheers. A list of the subscribers names on ornamented vellum, was also given with the testimonial.

Charing-cross Hospital.—The annual distribution of the Prizes took place on Tuesday, July 22. The following gentlemen were the successful candidates:—*Anatomy:* Silver Medal—Mr. Wm. Carter; First Certificate—Mr. Churchill; Second ditto—Mr. Wm. Hayden; Third ditto—Mr. T. C. Wigg; Fourth ditto—Mr. W. H. Cope; Bronze Medal—Mr. Wm. Burt Shorto; Certificate—Mr. H. Willson. *Chemistry:* Silver Medal—Mr. W. B. Shorto; Certificate—Mr. Charles Knight. *Surgery:* Silver Medal—Mr. J. H. Simpson; Certificates and Books—Messrs. Fisher and Badcock; Bronze Medal—Mr. H. Willson. *Physiology:* Silver Medal—Mr. Wm. Carter; Bronze Medal—Mr. W. B. Shorto. *Medicine:* Silver Medal—Mr. J. H. Simpson; Certificate—Mr. T. C. Wigg. *Materia Medica:* Silver Medal—Mr. J. H. Simpson; Certificate—Mr. Churchill. *Botany:* Silver Medal—Mr. Wm. Carter; Certificate — Mr. Churchill. *Midwifery:* Silver Medal—Mr. Luke Fisher; First Certificate—Mr. F. C. Skegg; Second ditto — Mr. Badcock. *Forensic Medicine:* Silver Medal—Mr. L. C. Badcock. *Practical Chemistry:* First Certificate—Mr. Simpson; Second ditto—Mr. Churchill.

The following is from a correspondent of the *Times*, dated from M'Clellan's camp, June 15:—"To watch this war is disgusting, both to an educated soldier and to an honest man, for nowhere is to be seen more military stupidity and more dishonesty than in this brave American army. You must not wonder if I get warm and bitter. The whole muddle does not affect me personally in the least, but I cannot help feeling as a soldier and a man. You have not seen the poor fellows in the Hospitals or returning from the camps, to die at home of sicknesses which might have been prevented by a little care and a little more honesty. Some that I have seen are, without being ill, emaciated and weak from sheer want. They cannot bear suitable food, from having lived for weeks on biscuits, bad coffee, and swamp water, and breathed the foul and poisonous air of swampy woods during their sleep. I am not very sentimental and no Sybarite either; but my heart aches and tears fill my eyes on hearing the simple tales of those poor fellows, and looking into their emaciated faces. On my way to this plantation from the camp I saw before me some tents surrounded with curious things,—a signboard on which was written with large letters, 'Drs. Brown and Alexander, Government Embalmers.' They are not to embalm the Government, however, but only those who require it by the care of the Government. My Irish gentleman friend was acquanted with the Doctor,—I do not know whether Brown or Alexander, but we found him sitting on a mat in his drawers and shirt, with a large diamond pin in the latter rather muddy-coloured garment. 'Take a drink?' Of course. Old Bourbon whisky and large tumblers. That once over I began asking questions. The Doctors were doing a large business; there behind were four corpses. 'See them?' Of course, poor fellows! none of them shot, all died by fever. The Doctors told me their principal ingredient for embalming was a kind of liquid glass and gypsum, which hardened to a substance like stone. In this state the body would keep for many years, perhaps for ever. The bodies looked well preserved, although not very agreeable. The Doctors took for embalming a private $25, and for an officer $50. I was told that since the commencement of this war above 2000 bodies of soldiers had been embalmed and sent home. This was done by Adams's Express, in deal boxes lined with sheet zinc. The poor fellow I saw nailed up wore his uniform, and his writing case and portfolio were laid beside him. With this, and a bundle of hay under his head, and the address on the cover of the box, he was sent home to his mourning parents. Ninety degrees in shade."

BOOKS RECEIVED.

Half-yearly Abstract of the Medical Sciences. By W. H. Ranking, M.D., and C. B. Radcliffe, M.D. Vol. XXXV. January—June, 1862. Churchill. 1862.

The Madras Quarterly Journal of Medical Science. No. VIII. April, 1862. Madras: Ganz, Brothers. London: John W. Davies.

On the Nature, Causes, Variety, and Treatment of Bodily Deformities; in a series of Lectures, delivered at the City Orthopædic Hospital. By E. J. Chance, F.R.C.S.E., F.L.S., F.G.S., etc., with copious notes and numerous engravings; drawn on the wood by the Author from cases in his own practice. Part I. London; Lemare. 1862.

Researches and Observations on Pelvic Hæmatocele. By J. Byrne, M.D., M.R.C.S.E., Resident Fellow of the New York Academy of Medicine, etc. New York: Ward. 1862. Pamphlet pp. 44.

The Retrospect of Medicine, being a Half-yearly Journal containing a retrospective view of every discovery and practical improvement in the Medical Sciences. Edited by W. Braithwaite, M.D., and James Braithwaite, M.D. Lond. Vol. XLV. January—June, 1862. London: Simpkin, Marshall, and Co. 1862.

On Excentric and Centric Force; a new theory of Projection. By Henry A. F. Pratt, M.D., author of the Genealogy of Creation. London: Churchill. 1862. Pp. 296.

Medical Terrorism in 1862. By G. William Bayes, M.D. London: Turner 1862. Pamphlet. Pp. 20.

Photographic Journal, being the Journal of the Photographic Society. Taylor and Francis, Red Lion-court, London. (Weekly.)

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 19, 1862.

BIRTHS.

Births of Boys, 921; Girls, 891; Total, 1812.
Average of 10 corresponding weeks, 1852-61, 1615·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	585	526	1111
Average of the ten years 1852-61	568·2	523·4	1091·6
Average corrected to increased population..	..	..	1201
Deaths of people above 90	1	..	1
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	2	8	1	6	8	6
North ..	618,210	..	9	10	3	8	19	4
Central ..	378,058	..	10	7	..	4	8	5
East	571,158	2	23	14	3	5	17	12
South ..	773,175	2	6	16	3	6	16	12
Total.. ..	2,803,989	4	55	55	10	29	68	39

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

emo.—The card sent us has already been published.

r. J. Jones.—Turner's "Chemistry," Daniel's "Meteorology," Golding Bird's and Brook's "Natural Philosophy."

M.R.C.S.—The licences of the two Colleges confer precisely the same right as regards practice.

The alteration, which we spoke of in a late Number as likely to be made in the *weights* of the American Pharmacopœia, is, we believe, postponed for the present.

Reviews of the following works are in preparation, and will appear directly:—Habershon, "On Diseases of the Abdomen;" Ryan, "On Infanticide;" Ritchie, "On Ventilation;" Scott, "On Volumetric Analysis;" Murphy, "On Headache;" Kramer, "On Diseases of the Ear;" Soelberg Wells "On Impaired Vision," Bigg, "On Deformities."

Errata.—Among the names of those exhibitors who have been successful in obtaining rewards, a list of which we published in our last Number, there are three typographical errors, which we are desirous to correct. *For* F. G. Erust, *read* F. G. Ernst; *for* Auzouz, *read* Auzoux; aud *for* Small Brothers, *read* Smale Brothers.

Chirurg.—The *Triticum repens*, or *couch grass*, contains a large quantity of saccharine or mucilaginous matter in its underground stems. Farmers go to a great expense in pulling it out of their fields, and often burn it; but their pigs eat it greedily, and thrive upon it. Doubtless it would make a blaud mucilaginous decoction which would soothe an irritable bladder as much as any other liquid of the sort. Whether it have a *specific* action is a question we will not pretend to answer. What is a *specific* action? This phrase is one which refers to our conceptions, not to anything in the thing itself.

"I could not learn from our Japanese friends to what class the civil officers (who are nobles), Physiciaus, and the younger children of the nobles belong. We were informed that these persons are respected in the State, have titles suitable to their rank, but that they form uo particular class. Learned men and Physicians wear sabres and daggers, like all official persons; but we could not learn whether they possess a civil rank or any diguity equivalent to it; we only heard that the eldest of the temporal Emperor's 200 Physicians was equal in rank to the Goveruor of Matsmai."—*From "Capt. Golowinn's Narrative of a Captivity in Japan,"* vol. ii. p. 132.

Irritable Bladder.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—What internal medicine has the most soothing effect in a case of simple irritability of the bladder? I am, &c. W. S.

The Derivation of "Aneroid."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In "Mayne's Lexicon" the derivatiou of "Aneroid" is said to be a priv. ἀήρ, air—airless. In "Pickford's Hygiene," ἄνευ, without, ῥώσδες, moisture. In "Webster's Dictionary," a priv. ὑγρὸς, moist. Which derivation is corrcct?

I am, &c. A Constant Reader.

[The last.—Ed.]

Hay Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If Mr. Calcott (Sutton), or any other Medical man, will give a small dose of strychnia three times a-day, I do not think it will disappoint them. I have never fouud it fail to relieve, and, while taking, to prevent a return of the symptoms; in fact, I look on it as a specifie in the above disease.

I am, &c. R. W.

P.S.—Ulcers on edge of cornea, etc., will quickly get well by two or three applications of liq. plumbi diacct., if applied every third day. I have never found it leave any stain.

A Chemical Barometer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you, or any of your readers, be kind enough to give me directions for making the chemical barometer? which, I believe, is made of camphor, nitre, carbonate of ammonia, rectified spirit (or proof spirit), and water, but of the exact proportions I am ignorant. Any hint concerning it I shall be glad to receive,—viz., as to the fidelity of its prognostication, etc. I am, &c. L.R.C.P. Lond., M.R.C.S.

Medical Items.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In "Notes and Queries" for March 15, 1862, there are some extracts from an "account-book of Isabella, Duchess of Grafton." From these I select for your "Notes" a few Medical items and a few others for the sake of comparison, though her Grace's expenditure seems to have been directed rather by caprice than reason.

"1711.—The cupper, £1 1s. 6d.; Dr. Friend (each time), £2 3s.; To cutting my hair, £1 1s. 6d. 1712.—Dr. Mead, £2 3s.; To the hair-cutter, 10s. 9d. 1713.—Poor people, 8d.; Point lace, £60; A gentleman of my Lord Bolingbrook's, £2 3s.; To the Duke of Gratton's cook, £2 3s.; To the mobb, 5s. 1714.—Two quarts usquebaugh, 14s.; Three bottles of Epsom water, 1s. 6d.; To a poor body, 6d; Bills of mortality, 10s. 9d.; Ten flasks of Spa water, 11s. 8d.; 1 lb. Bohea tea, £1; ¼ lb. Brazil snuff, 8s.; Given to the anatomics, 5s.; To Dr. Crack, £2 3s.; To Dr. Short, £5 7s. 6d.; 6 lbs. chocolate, £1 13s.; To tho corn-cutter, 10s. 6d; Rouge, 2s. 1720.—A point head, £40; Viper water, 1 s. 1721.—Dr. Friend, £1 1s.; Scarlet stockings, 7s. 6d. The Duchess dicl in 1722."

How is it that so many of these fees, perquisites, etc, are multiples of 10s. 9d., which was not an English coin? What were "the anatomies?" and who was Dr. Crack?

I am, &c.

July 22. J. D.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In an interesting book written by Mrs. Mary Elizabeth Lucy, of Charlecote, in Warwickshire, giving an historical sketch of the Lucy family for the last seven hundred years, I find a letter of advice to the Sir Thomas Lucy of 1640 from the two Physicians who were then consulted by him. The good sense and moral tone of this letter present a pleasing picture of our predecessors in those days, and I send you a copy should you wish to publish it, as Mrs. Lucy's book is for private circulatiou only.

I am, &c.

George-street, July 20. Thos. Hawksley, M.D. Lond.

"Directions given to the Right Worshipful Sir Thomas Lucy, the 8th November, 1640.

"What our opinions are conceruing the nature of your weakness of stomak and want of appetite; what means and what method we have used for to assist you. We have punctually described in the delineation of your state, and since we have not obtained as yet our ends by that course which you have runned by our directions this seven weeks, we must desire you to prosecute the continuance of such means as conduce to your restauration. When we commende unto you rather such medicines as are altretaifs, in regard that purging medicines do rather trouble than benefit you as fare as we can collect by outward appearance out of those we have administered unto you, during our attendance here upon you, and therefore we diswade the use of them, except some manifest indication challenge them, especially smce nature dischargeth itself duelly of its own accorde, proportionable to that you eate. Neither do we think it fit to tyre you out with multitude of altreting medicines, only we could wish you had not such a reluctancy of stomak to all manner of electuarys as we perceave you have; for they are the more appropriated for the comforting of a languid appetite, beeause they lye long in the stomak, whereas liquid drinks pass soon over, and so are disenabled their operation, could distempers hatch stubborne matter for long lasting weaknesses such as that of your stomak as it appeareth by the dulness of appetite, rough fleame, crudity of urine, aud the frustration of our attempts from obtaining our aymes in your recovery. Let not that dismay you, but rather incorrage you to consult with the learned artists in our faculty, to whose judgement we commit our consultation. In the mean while continue your dyet. Drink and possets as also all such things as you find most comfort in, and observe these insuing rules—

"1st. Keep a good dyet, make choice of such things as are of easy digestion and breede good bludde, such as mutton, chickens, partridges, quails, new laid eggs, and broaths, caudles, and such like. Let your drink be good beere, and claret such as is pure, without admixture of read wine, and observe this rule generally, that all your drinks and suppings be potentially hott and actually unchilled out of the could, the distemper of your stomak requiring it so.

"2nd. Continue your wonted moderation in your meals, and force not any meate doune contrary to your stomak, for that would be to overlay it beyond its bearance, and when you find your appetite to com husband it, that it may serve you also for the next insuing meale, when you will not obtain by satisfying at the full. For your digestion is weake, and so cannot maister much at once.

"3rd. Of all spices, pepper, cinuamon, ginger taken in your sauces are fittest for to warme the stomak without prejudicing it or your liver if it be but moderately taken.

"4th. There is a caution to be had in the use of such warming drinkes, meates, and medicines, for if they be excessive hott, they may heate the liver, induce rogh fleame, and dissolve the natural heate of the stomak.

"5th. Exercise yourself daily, and that moderately, for so will you make up naturall heate to the farthering of condition without puffing yourself to breathlessness.

"6th. Banish all passions of the minde, let not your meditations be too loug bent upon one subject. Labor to be cheerfull, aud so expect the Lord's blessing with patience, to His glory, your comfort, and the joy of a many, according to the aymes of

"Your assured servants,

"Samuel Pawe,

"William Lapworth."

COMMUNICATIONS have been received from—

Dr. R. Knox; Sir James Clark; Dr. Ussher; Mr. J. O. Brien Kough; Dr. Arthur Mitchell; Dr. Basham; Dr. F. J, Bond; Mr. Alfred Hill; Mr. R. W.; B. Walter Foster; Mr. M. F. Marrisson; Dr. Hawksley; Mr. J. Adams; Dr. G. A. Towers; Mr. J. Z. Laurence; Dr. G. N. Humphry; Dr. C. H. Moore; Dr. Leared; Mr. Roberts; Mr. J. Jones; Dr. Bond; Dr. A. Mitchell; Mr. Charles Seward; J. D.

APPOINTMENTS FOR THE WEEK.

July 26. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-eross, 1 p.m.

28. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.

29. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

30. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

31. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

August 1. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

CHLORODYNE *Ver.*, *viz.* DR. J. COLLIS BROWNE'S.

THE ORIGINAL AND ONLY GENUINE.

DR. J. COLLIS BROWNE, M.R.C.S.L. (Ex-Army Medical Staff), after many years of study and experiment, succeeded in discovering in 1846 a remedy which should possess the property of an ANODYNE, SEDATIVE, DIAPHORETIC, ANTISPASMODIC, and ASTRINGENT; for this new Remedial Agent he was obliged to find a name, and coined the appellate CHLORODYNE, as specifically indicating this remedy,—a word unheard of and unknown until 1856, when he introduced it for public use through myself, J. T. DAVENPORT, Pharmaceutist, 33, Great Russell-street, Bloomsbury-square, London, TO WHOM HE CONFIDED THE RECIPE AND ITS MODE OF MANUFACTURE, NEVER HAVING DIVULGED OR PUBLISHED THE SECRET OF ITS FORMULA.

The Medical Profession are therefore CAUTIONED to reject the announcements of certain persons, who adopt the term and affix it to spurious compounds in imitation, *speciously* pretending that they are competent and capable of preparing it properly and uniformly, well knowing they have no authority to do so, not being in possession of Dr. BROWNE'S formula.

The *only Authorised Formula is in my sole Possession*, and I give an UNQUALIFIED DENIAL that it has ever been published. The fictitious and pretended analyses of Chlorodyne only deceive, and are altogether different from Dr. Browne's invaluable preparation.

NOTE.—*One great feature of success* in employing efficient remedies depends on their *fidelity* and *genuineness*; if spurious compounds are substituted, the patient suffers and the Physician loses confidence, and it is known to many Pharmaceutists and Chemists to their cost, that the patronage of Physician and patient have been immediately withdrawn on their learning of spurious compounds having been substituted when Chlorodyne was ordered.

The extraordinary success attending the use of Chlorodyne has given rise to a series of imitations; it is, therefore, doubly incumbent on Physicians and Surgeons when prescribing this preparation to write "*Chlorodyne. Dr. J. C. B.'s.*"

Each Genuine Bottle has the words DR. J. COLLIS BROWNE'S CHLORODYNE engraved in White Letters on a Red Ground.

To be obtained from all Wholesale Druggists.

Sole Manufacturer—J. T. DAVENPORT, PHARMACEUTIST.

Wholesale and Retail Depot—33, GREAT RUSSELL-ST., BLOOMSBURY-SQ.

Pulvis Jacobi ver, Newbery's,

is the ORIGINAL & GENUINE, was ESTABLISHED A.D. 1746,

And is Prescribed, with the greatest success, "by the highest authorities," for Fevers, Ague, Cerebral Congestion, Rheumatism, Chills, Influenza, &c. &c.

FRAS. NEWBERY & SONS, 45, *ST. PAUL'S CHURCHYARD.*

Prices for Dispensing—1 oz., 9s.; ¼ oz., 3s. 4d.

CHLORODYNE.—R. FREEMAN, Pharmaceutist, Kennington-road, London, S., informs the Profession and Trade that he has for years made and extensively supplied CHLORODYNE, in 1oz. and 4oz. Stoppered Bottles, at 1s. 6d. and 5s. each. He guarantees it to be uniformly and properly prepared and superior to any other makers', though their charge be ever so exorbitant; and he is glad to find the low price which he sells it allows the Profession to use it in common practice and public institutions, so that its extraordinary beneficial effects are enjoyed by the poorest sufferers. R. Freeman almost daily receives letters from Members of the Profession, and also the Trade, who speak highly of his Chlorodyne. He publishes the following by permission:—

"I duly received your sample of Chlorodyne, and I liked it so well that I ordered more through my Wholesale Druggist. I think it in every way as good as any I have used, and it has the recommendation of being cheaper —"B. J. BOULTON, M.D., Surgeon Horncastle Dispensary, &c., Horncastle."

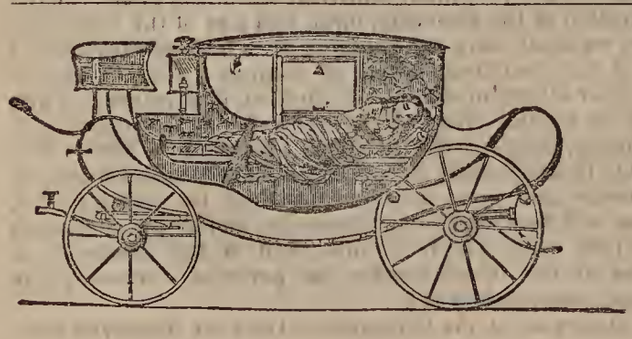
"I have administered to several of my patients your Chlorodyne, and I consider it a valuable remedy. It has succeeded perfectly in those cases in which I have used it. In its action it is uniform, and in its effects most efficacious.

"DAVID EASTON, M.D., Medical Officer Rhins of Galloway Poorhouse, &c., &c., Stranraer, Wigtonshire, Scotland."

"Having been in the habit of using Mr. Freeman's CHLORODYNE for some time past, I have much pleasure in stating that *it has never failed to have the desired effect* in whatever case it has been administered.

"C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, &c., &c."

"I have had several parcels of your Chlorodyne, and the Medical men who have used it find it equally efficacious with that which is double the price, both having been tried on the same patients with similar results. "W. GRAHAM CARR, Pharmaceutical Chemist, Berwick."



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Also a good assortment of New and Second-hand Broughams and other Carriages for Sale or Hire.

ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE I.—INTRODUCTORY.—*The Diagrams—Structure and Keeping of the Mature or Common Red Corpuscles of Man and Mammalia; and of the Embryonic Set.—Analogues.*

MR. PRESIDENT AND GENTLEMEN,—Although I had strong reasons for declining to accept this office, it would have been ungracious to disregard the unanimous voice by which the Council, without any solicitation of mine, did me the honour to elect me to it; while I have also felt that the members of this Council ought to take their turn in this theatre to assist in promoting the good cause of scientific knowledge,—a feeling all the stronger when I recollect the admirable services and examples in this way of many eminent men, my predecessors, some happily still spared to us, but most of them in their graves,—though yet speaking.

These Lectures will sometimes consist in great part of the results of my own observations and researches, with the foundation of such knowledge as was best established at the time, and calling in the evidence of others whenever it may appear desirable by way of elucidation.

Although we can make no pretension to the general interest and utility of the excellent lectures regularly given in our Schools, it seems a particular duty in this place to present the special details and results of original research in a more extended form than would be proper, even if they could be comprehended, in a systematic or routine course for pupils. In short, to supply a want in this respect, in order to promote original inquiry and to fulfil the desirable object of awakening and keeping alive scientific research rather than encouraging mere description and compilation. Indeed, this is an age of compilations and translations, which have been greatly increasing of late. Yet it may be questioned whether the learning, candour, and comprehensive exactness of Haller's "Elementa Physiologiæ" have ever been surpassed or even equalled, while it seems probable that the extraordinary multiplication of books of the first-named class has rather confused and confounded than illustrated the history of physiological science. Certain it is that many branches of it which have been well cultivated and wrought out in this country, are afterwards transferred to the Continent and published in books there, and then translated and brought back as novelties to us, in such simplicity—not to say duplicity—as to the real origin of the facts, that they are actually paraded as part and parcel of foreign genius and discovery, with a contempt for the science of this and Hunter's country, thus subjected to a species of systematic piracy which has been and is increasing, and ought to be diminished.

It is a sorry state of physiological history in Britain, and very little to our credit, when translators can thus venture to put before us versions of books in which the composers—too often even under the patronage of one or other of our most respected teachers—have used the fruits of the labours, while concealing the names of our best physiologists, by excluding them from the so-called and ostentatiously proclaimed lists of the literature.

Two, for example, now no more, of the most eminent discoverers in certain departments, that England, or, indeed, all Europe can boast, have been thus ignobly treated. But let us hope that there will be no want of generous hearts to defend and maintain their countrymen, Hewson and Quekett, on the pedestals which they have so honourably gained. Physiology is too vast a field for us to say that any cultivator has left no part of it untouched; but it may be truly said—and I am glad to take this opportunity of making the assertion—that these two touched none that they did not adorn. Still it ought in justice to be stated that we have some excellent and well-known systematic treatises of native growth, by good and true British observers, while the best foreign work of the kind has not been translated into our language.

However, independently of the reasons just given, I propose, on certain occasions when the necessity may appear most obvious, to pay more than usual attention to the historical method up to the year 1845, not only from its inherent interest and usefulness, but because it is really just that we should avoid that scientific atheism, so to speak, which would contemplate the creation without any regard to, or at least some little recognition of, the Creator. In short, for the mere love of God, and consequently of whatever is good and true.

The interest and importance of everything belonging to the anatomy and physiology of the blood, of all duly ascertained facts and knowledge relating to this wondrous fluid, are and have so long been recognised and appreciated, that no apology can be needed for introducing this subject to your attention. We all well know how much it occupied the active mind of the great founder of our noble Museum, and few of us can avoid looking back with fondness to his feelings. Nor can we think of the subject without a just pride in the transcendant genius of Harvey, not only as the discoverer of the circulation of the blood, but of the most important attributes and endowments of this fluid,—as both the author and preserver of the body, the primogenial matter and vital spark, the first to live and the last to die, the immediate seat of the vegetative faculty of the animal; and every other part of the body subordinate or posthumous to the blood.

While entering on these pursuits and congratulating ourselves on modern progress, let us not mistake our position, and the impenetrable veil by which so many operations of Nature are hid, and so few of which mere finite wisdom can ever expect to reveal. Physiology is not an exact science. Its students are like children, as Newton said of a higher subject, playing with pebbles on the shore while the great ocean of truth lies disregarded or undiscovered beyond. We have been greatly directed to resemblance and analogy, with little regard to the true nature of contrast or difference. Yet Coleridge has truly pointed out the greater importance and difficulty of this over that more easy and popular kind of knowledge. You cannot move a step without meeting with some of these difficulties; and an increase of our kind of knowledge often only adds to the perplexity. We used to think it easy in all cases to set forth the differences between the three great kingdoms of Nature; but my excellent predecessor here, Mr. Savory, has lately adduced many good arguments to show that we do not now know in what these differences consist.

And though there is not a peasant but knows a bramble, a willow, a sedge, a duck,—what is alive and what not,—we get sorely beset when we attempt to discover the differences in near allies even of such obvious things, and most of all when we come to define them. In our ignorance definition fails us; and so, like ordinary mortals, we have to fall back for support on our common experience. Thus it is, too, with some of our most familiar terms. Life—"vital spark of heavenly flame"—ever in our mouths, but eluding our definition. Cells, exactly similar germs of widely dissimilar things. Poisonous and wholesome principles—as the vegetable alkaloids—alike in composition or form, and their wonderful difference only known by experience of their effects. Our "intellectual being, these thoughts that wander through eternity," so baffled and set at nought by the lowly operations of Nature, may well teach us reverence and humility in all our attempts to unfold such matters as the structure and uses of the blood.

It matters little what part of it we begin with, but as a commencement must be somewhere, the red corpuscles may be selected for an introduction, even although they were unknown to Harvey, and Mr. Hunter thought them the least important of the proximate constituents of the blood. After a description of the structure, form, and size of the corpuscles of man, we shall have a foundation for a comparative view of those of the vertebrate series of animals generally, and to which your attention will be solicited in due course. Their perfect or regular characters will be chiefly described, and, incidentally, some of the principal variations to which they are liable in the healthy state of man and the lower vertebrata, with shorter and more general notices of the development, relations and uses of the red corpuscles, and of the characters of the pale cells, lymph globules, and of the molecules or granules of the blood, besides the particles composing the molecular base of the chyle.

The Diagrams of the Corpuscles.—Here are displayed their

relative structure, form, and size in the orders of the vertebrate sub-kingdom. The diagrams are made from a selection of a much greater number of drawings in my possession. During the last twenty-one years, I have been in the habit of making sketches of all blood-corpuscles examined by me, on a scale of which $\frac{1}{4}$th of an inch corresponds to the divisions of $\frac{1}{1000}$th of an inch of my micrometer. (a) Many of these plans or sketches have been skilfully enlarged, ten times in diameter, for the diagrams, by Mr. Walter Searson; so two inches in them will be exactly equivalent to $\frac{1}{4000}$th of an inch, and the objects are calculated to be magnified from $\frac{1}{8500}$ to $\frac{1}{10000}$ times linear admeasurement, the only one employed. The several other diagrams, chiefly relating to the liquor sanguinis, to the anatomy and physiology of the fibrin, and to parts of the animal lymph and chyle; and of the vegetable latex, for comparison with analogous objects in the blood, will be particularly explained as we proceed.

RED CORPUSCLES OF THE BLOOD OF MAN.

Fig 1

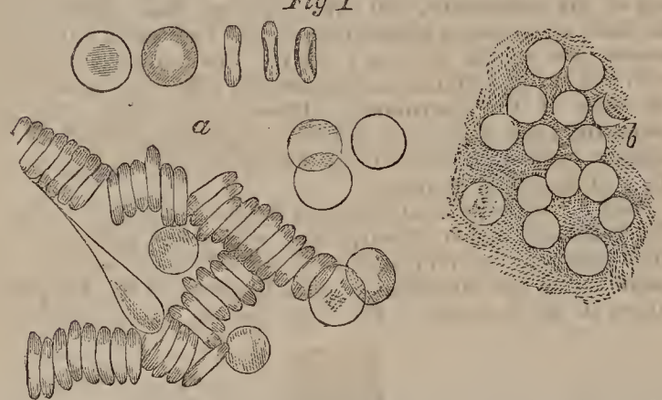


Fig. 1.—Red corpuscles of man (on the same scale of one-four-thousandth of an inch as marked at Fig. 3). At *a*, the corpuscles are seen flat, on edge, and in rolls; the two first corpuscles show the central spot or concavity, dark and light; next are shown the biconcave and concavo-convex forms; among the rolls, one corpuscle is drawn out by virtue of its viscidity, and would resume its circular shape by virtue of its elasticity. At *b*, the pale membranous frames of the corpuscles are shown, completely devoid of any nucleus, and deprived of their coloured viscid part by three days' washing in water, and then treated with sublimate.

Structure (*Fig.* 1).—Notwithstanding the current observations that the red corpuscle is absolutely homogeneous, it is really composed of two very different parts. One of these is membranous, colourless, and insoluble in water; the other is semi-fluid or viscid, containing the colour, and very soluble in water. The perfect corpuscle is smooth and slippery, and so elastic and viscid that it will, either by sticking or pressure, become elongated into a variety of shapes and quickly reassume its regular form. The corpuscles not only stick together out of the body by their broad surfaces, in the well-known piles, but in a less degree by their edges also, as Dr. Davy has well described. This viscidity is most remarkable in buffy blood; and the sticking together of the corpuscles is prevented or destroyed by saline solutions. The salt in the blood preserves the regular form of the corpuscles, as Hewson discovered, though Mr. Hunter disputed the fact. If properly dried on glass, their form may be preserved for an indefinite time. I have specimens still perfect that were made in 1837; and even the singularly minute and delicate corpuscles of the musk-deer remain perfect thus preserved since my discovery of them in 1839. This is a remarkable property of the red corpuscles of the vertebrates generally, which, I think, has not been noticed as a point in which they differ from other free and soft animal cells. The club-shaped spermatozoa, which keep so well, are hard objects, scarcely affected by strong acetic acid, and possess the chemical and physical properties of horn; while the spiral spermatozoa are much more destructible, and are very soluble even in dilute acetic acid, as fully described in the *Proc. Zool. Soc.* for July 16, 1842.

The red corpuscle of man and other mammalia has no nucleus—nothing at all like that so plain in the corpuscle of oviparous vertebrata (Fig. 2, *b*). The mistake of describing a nucleus in the red corpuscle of man and other mammalia arose from the central spot (Fig. 1, the two first corpuscles) presently to be described, and from the observers applying what they so plainly saw in lower animals to man and the mammalia. Thus Hewson, examining the corpuscles of the skate, never entertained a doubt that the nucleus he always

Fig 2.

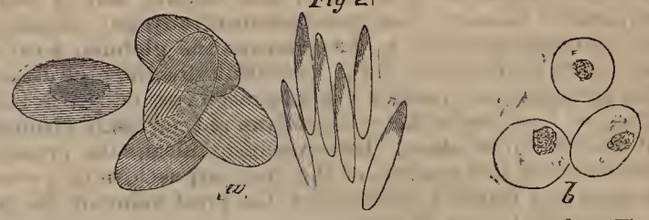


Fig. 2.—Red corpuscles of a bird (the ostrich), on the same scale as Fig. 1. At *a*, the corpuscles lying flat, and on edge; *b*, the pale membranous frames of the corpuscles, all containing nuclei, and deprived of their coloured part by water as in Fig. 1. Maceration in water has caused, as usual, both the oval nucleus and vesicle to swell into a more or less circular form.

saw so distinctly—"like a pea in a bladder"—in the blood corpuscle of that fish, was a true representative of a nucleus in the human red corpuscle. And the error has prevailed in one form or other up to our time, and was quite general about the year 1839, when I was always endeavouring to correct it; while Müller, Krause, Gerber and others, following Prevost and Dumas, and the rest on the Continent, had satisfied themselves of the existence of a nucleus in the human corpuscle, and Professor Wagner was expressing doubts on the subject. In England the late Dr. Martin Barry was publishing engravings in the *Philosophical Transactions* of what he regarded as positive proofs of this so-called nucleus, and which is also asserted with equal confidence in Dr. Todd's "Cyclopædia of Anatomy."

But it must be remembered that, in the year 1827, Dr. Hodgkin and Mr. Lister made the following statement:—"Our observations are at variance with the opinion long since formed by Hewson, that these particles consisted of a central globule enclosed in a vesicle composed of the coloured part, and which, though refuted by Dr. Young, has since in a modified form been revived by Sir Edward Home and Bauer in this country, and by Prevost and Dumas on the Continent." This is the statement of Dr. Hodgkin and Mr. Lister, which refers to their examination of the human blood-corpuscles. And most interesting it is, among the first anatomical fruits of Mr. Lister's very important labours in the improvement of the microscope, and withal so accurate that it ought at once and for ever to have dispelled any more belief in this imaginary nucleus of the blood disc of man.

Still, after all, it does not appear that their observations were pushed far enough to enable them to perceive the accuracy of Hewson's description of the corpuscle of an oviparous vertebrate animal, however inapplicable it was to mammalia. And so here we were left to the bewilderment of half truths,—that fruitful source of error,—very precise and conscientious in themselves, but still so confounding two things fundamentally different as to obscure the whole truth. This, indeed, as in so many other cases, lay between both parties; for the descriptions of Hewson and of Young, and of Hodgkin and Lister, are quite accurate and real, when confined, as they ought always to be, to the class of animal on which these excellent observers were severally engaged.

Lastly, in 1842 and 1845, M. Donné on the Continent, and Mr. Wharton Jones in England, fully agreed with me as to the fact of the difference in question between the mammalia and the lower vertebrata, and thenceforth this important subject—"this vexed question of a nucleus," as Mr. Jones appropriately termed it—was finally settled; and that notwithstanding Dr. Rees and Mr. Lane had been, in their interesting memoir, or were still, maintaining that there really is a nucleus in the blood disc of man. But their supposed nucleus seems to be identical with what I have always described and depicted as the membranous base or frame of the corpuscle, and similar to, or identical with, the part figured by Home and Bauer, but a very different thing from a nucleus.

Now, if you wash the red corpuscles of mammalia in water, allowing them to subside in any tall narrow jar, decanting the supernatant liquid and adding fresh portions of it until all the colouring matter be removed, you will have a whitish precipitate consisting mostly of pale, thin, nearly transparent flattened circular discs. These are the membranous bases or frames of the corpuscles, corresponding to the globuline of some authors, and so faint as not always to be easily seen until their opacity has been increased by some such reagent as corrosive sublimate or iodine, which makes them very plain

(a) These drawings, on a scale of one-four-thousandth of an English inch, will be always used, unless otherwise mentioned, for the illustration of these Lectures in the *Medical Times and Gazette.*

(Fig. 1, *b*). In short, these washed corpuscles are the colourless tegumentary frames of the red discs, and as you see smaller than, that is to say, about two-thirds the size of the fresh unwashed corpuscles (Fig. 1, *a*); and thinner and of larger comparative diameter than the nucleus of any red corpuscle, and approaching in size to, but wanting the globular form of, the objects represented in the beautiful drawings of Bauer. This membranous frame is a homogeneous structureless substance, as I believe is the vesicle of the red corpuscle throughout the vertebrate class. However insignificant the presence or absence of this nucleus of the red corpuscle might seem, we shall in a future Lecture show the great value of the fact in a zoological point of view.

Corpuscles of the Embryo.—While describing the red corpuscle of mammalia as destitute of a nucleus, we were speaking, as was said, of the perfect and regular structure, since it differs during the earliest periods of intra-uterine life in having, indeed, a very distinct nucleus; thus adding another to the many examples already known of a temporary structure in the higher animals corresponding to a permanent one in the lower series. Fig. 3 represents them from the fœtal mouse. Some of the nuclei have an envelope, either palish or red, within which latter or completely red vesicles the nucleus was seen to shift about from the centre towards the circumference; so that whatever doubts may be entertained as to the existence of the vesicle of the corpuscle of adults, there can be none as to the reality of a true cell-membrane and nucleus in the temporary corpuscle of the embryo, as shown at *a* and *d*, Fig. 3. It will be observed that the whole corpuscles are so much larger than those of the adult as still further to resemble the permanent corpuscles of lower classes of vertebrata. In short, this embryonic corpuscle is the true analogue of the common red corpuscle of mature oviparous vertebrata, as I have long since shown, as represented in Fig. 2, *b*, and Fig 3, *d*.

Fig. 3

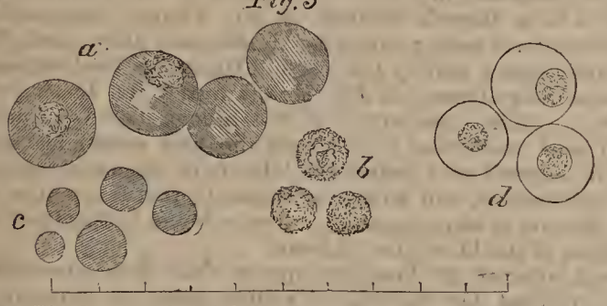


Fig. 3.—Blood corpuscles of the early embryo of a mammalian animal. At *a*, four of the red corpuscles lying flat; *b*, free colourless globules, similar to, but rather larger than, the nuclei; *c*, red corpuscles devoid of nuclei, somewhat smaller and more unequal in size than, but in other respects similar to, those of the mother. At *d*, the corpuscles of *a*, showing their nuclei very distinctly, after removal of their colouring matter by water.

Some of the nuclei (Fig 3, *b*) are quite destitute of an envelope, and float free in the liquor sanguinis, and may be seen to possess nucleoli, and, indeed, all the characters of pale elementary cells. At a still earlier period of gestation, these pale corpuscles (Fig. 3, *b*) are so numerous as to give the blood a whitish hue, so that it is not a red blood that first appears in a red-blooded animal. Thus we have an additional instance of a transient state in the higher animals agreeing with a permanent one in beings far lower in the scale of organisation,—extending, indeed, in this case, from the Lancelet, the lowest of the fishes, in many instances more or less through the Invertebrata. This paleness of the blood of very young vertebrate embryos was known to our countrymen Glisson and Needham as early as the year 1667; so that the claims of Messrs. Delpeche and Coste to the discovery, and that other claim put forth, not by, but for our admirable Hunter, may be altogether disregarded. The red corpuscles of these young embryos are not depressed on the surfaces, but are more or less gibbous or globular.

Analogues.—Thus you will have seen that there are two sets of red corpuscles in man and mammalia,—to wit, a temporary or embryonic set which have nuclei, and a permanent or rather mature set devoid of nuclei. And you will be prepared to recognise this embryonic set of red corpuscles of mammalia as the analogues of the mature set of red corpuscles of oviparous vertebrata; while the colourless or primogenial corpuscles are analogous to the pale globules of the blood of adult vertebrata, and to the prevailing or characteristic corpuscles of the blood of many invertebrata; so that, in its course towards the highest type, there are temporary phases in which the blood of the mammalian is analogous to the permanent states of the blood of invertebrate and of oviparous vertebrate animals respectively.

ORIGINAL COMMUNICATIONS.

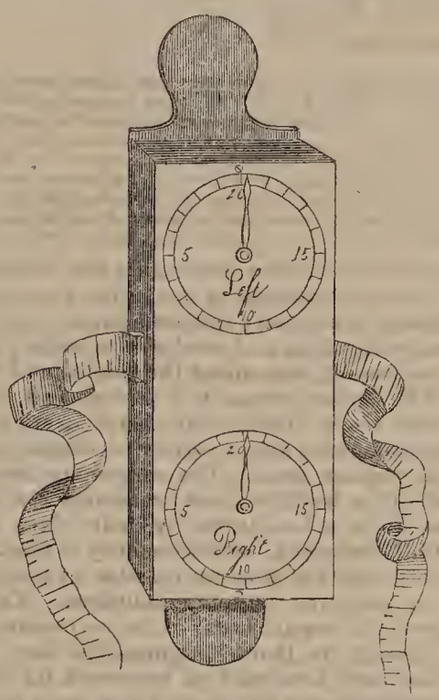
ON THE DIFFERENTIAL STETHOMETER.

By ARTHUR LEARED, M.D., M.R.C.P., M.R.I.A.

Physician to the Great Northern Hospital.

In the account of new instruments at the International Exhibition, given in the *Medical Times and Gazette* of June 7, a stethometer by Mr. Coxeter, for the differential examination of the chest, is figured and described. Two graduated dials provided with movable indices are contained on the circular face of the instrument, and are so placed that when in use the dials are situated respectively to the right and left of the mesian line of the patient's body. The indices are moved, with the aid of suitable mechanism, by silk cords attached to the sides of the instrument. These cords "are stretched round the chest with care, and the relative expansion of the sides on respiration is minutely shown by the movements of the corresponding indices."

Such an instrument, although of different shape, is not new. Ten years ago an instrument, which will be best understood by the accompanying representation, at half the true size, was made under my directions by Mr. Milliken, of St. Thomas's-street, in the Borough. The dials are so placed that when



the instrument is applied to the chest the axes of both will be intersected by the mesian line of the body. In this circumstance, and in its narrowness, this instrument has an advantage when compared with that of Mr. Coxeter; since the measurement of both sides of the thorax commences from the same perpendicular line, and more of the tape or cord is brought into contact with the patient's body. The circumference of each dial measures exactly four inches, and this is divided into twenty equal parts. The motion of that part of the string which is drawn out from the instrument by the expansion of the chest is multiplied four times in that of the indices, so that the movement of an index from one to five, or one inch, shows the expansion to be a quarter of an inch. The portions of cord contained in the instrument are, when drawn out by inspiration, retracted by springs during expiration, and by means of stops on the cords sufficient resistance is maintained in these springs to allow of proper adjustment of the instrument.

A more compact form for the instrument would be that of a watch, both indices being adapted to the centre of the same dial; but more complicated mechanism would be required.

When the relative expansion of the sides of the thorax is to be measured, this should be completely uncovered, and the instrument should be temporarily held by the patient on his sternum. Each portion of the string or tape is now to be carefully brought round the respective sides of the body, and, being crossed, are to be fixed by pressure of a single finger upon the spinous process of a particular vertebra. Great care must be taken that the axes of the dials lie in the mesian line of the sternum, and that the tapes or cords embrace the thorax in a horizontal manner, so that their points of attachment to the instrument and the place at which they are crossed are in the same plane. The patient should now make a forcible expiration, and before he inspires, the cords should be drawn tight and fixed as before with the right hand, while the observer supports the instrument with his left hand by means of the handles shown in the drawing. The patient is now to inspire and expire strongly; and should the expansion of a portion of the thorax traversed by the strings be limited by disease, the result will be very plainly shown by the movements of the corresponding index compared with those of the other index. It is obvious that the double stethometer is capable of being used in all cases in which the single instrument of similar construction is employed.

I have been somewhat minute in describing the mode of using the instrument, because without attention to these details disappointment must occur. On the other hand, with sufficient care, the results are sometimes very valuable. The use of stethometers must be admitted to be rather limited, because the diagnosis can be generally established by other means. But in some obscure cases, valuable confirmatory evidence may be obtained by their employment.

12, Old Burlington-street, St. James's.

SOME REMARKS ON THE

FORMATION OF MEMBRANOUS CYSTS IN THE INTERIOR OF THE URINARY BLADDER.

By ROBERT KNOX, M.D.

Corresponding Member of the Imperial Academy of Medicine of France.

A short time ago, my attention was called to the formation of membranous cysts in the urinary bladder, by a deplorable case, of which some account was given in the Medical journals. From what appeared in the brief narrative, the nature of the case did not seem clear. A lady, during her confinement, suffered severely from retention of urine, and although subsequently relieved, at last sunk, in consequence, seemingly, of the sufferings caused by the retention. A post-mortem, made by my friend Mr. Spencer Wells, disclosed a condition of the urinary bladder such as was to be expected from an intense inflammation of the mucous membrane of the viscus. A sac, seemingly composed of the mucous membrane itself, lay coiled up in the interior of the bladder. It was also surmised that vascular fibres might be seen on one surface of this sac, so that during the progress of the disease, according to this view of the case, two layers of the walls of the urinary bladder had sloughed and lost all connexion with the remaining walls of the organ.

I confess that at first such a view of the case seemed to me untenable, and I felt disposed rather to think that the cyst or detached membrane in question could be nothing more than a pseudo-membranous bag, formed in the usual way by an inflamed mucous surface, as we find so frequently in cases of croup, etc. Happening shortly thereafter to meet Dr. Tanner, I discussed the matter with him, and narrated to him the following remarkable case, which occurred in the practice of Mr. Liston, and of which I was not only an eye-witness, but acted throughout as his assistant.

Late one evening, Mr. Liston called on me and asked me to accompany him and to assist him in an operation he contemplated, and in order not to lose time he would narrate the particulars as we walked along. They were as follow:—The patient was a man in humble life; he had been unwell for some time, complaining chiefly of an obstruction to, or a difficulty in, discharging the urine from the bladder. On passing a catheter, Mr. Liston felt, or fancied he felt a soft, yielding, but obstructing body in the prostatic portion of the urethra. This readily gave way before the catheter, which then passed into the bladder, but on being withdrawn it was followed by the foreign body, which immediately re-occupied its former position. Mr. Liston then explained to me his view of the case, which was this:—"A cyst or false membrane of the form of the bladder itself, occupied, as he conjectured, the interior of the bladder, and were this removed by an operation the patient might recover." The boldness of the proposal, or rather the diagnosis itself, astonished me, and I told him so; but on introducing the catheter, and meeting with the same phenomena as he had described, I at once gave into his view. We were alone. With a straight sharp-pointed bistoury, which he usually carried in his waistcoat-pocket, he opened the bladder above the pubes, and as the incision proceeded there escaped from the bladder a foreign body resembling a cyst or false membrane, as he and I concluded it to be, and of the shape of the interior of the bladder. It escaped into my hands. The wound was closed simply; and as we returned home, bringing the preparation with us, I could not but observe to him that of all the bold and successful operations he had performed, none equalled in merit the diagnosis he had just made, and that half a century might elapse before he made such another. The patient recovered and lived for some time.

From that day until the present time I heard no more of the case, and thought no more of it until the occurrence of the one mentioned by Mr. Spencer Wells to the Pathological Society. Discussing it with Dr. Tanner, I suggested that we should look for Mr. Liston's preparation in the Museum of the College of Surgeons, to which Museum I knew that Mr. Liston had presented a few rare pathological specimens he had brought with him, many years ago, to London. To my surprise we found a layer of muscular fibres on the cyst, thus throwing doubts over the nature of the preparation itself. There was the identical cyst, or pseudo-membrane, as I had always fancied it to be, evidently complicated with another structure, whose presence there, could not be readily explained on the pathology of Baillie or Hunter. I have again re-examined the preparation with Mr. Henry Thomson, whose great experience and extended inquiries into prostatic and vesical diseases are well known. I think that the presence of muscular fibres forming a sort of layer of the sac, cannot well be doubted, so that the preparation is not altogether what Mr. Liston and I took it to be,—a simple pseudo-membrane composed of but one tissue; and now arose the question in my mind, whether I had not seen or read somewhere of the formation of false muscular fibres, the product of inflammation, as well as of the usual pseudo-membrane, for I felt disinclined to believe in the theory that the cyst found in the bladder was in reality the mucous membrane, and a layer of the muscular, in a sloughing state detached from the walls of the cavity. I felt convinced that I had read of a case or two (a) in which a layer of muscular fibres had formed in large masses of exudation, arising from an inflammation of fibrous or cellular membrane. Turning to the learned Vogel, I there found the title of the work, "Tractatus Anatomico Pathologicus Sistens duas Observationes rarissimas de Formatione Fibrarum Muscularum in pericardio Atque in pleura obviarum." Leo-Wolf: Heidelberg et Leips. 1832. Vogel quotes Wutzer's critique on it in Müller's Archiv., 1834, p. 45. I never saw Leo-Wolf's preparation, but if the engravings in his treatise truly represented the structures, then undoubtedly muscular fibres had been formed by the same process which gave rise to the effused false membrane on which they rested. But Vogel, whose accuracy is extreme in all such matters, assures us (p. 184), that "the microscopic examination (the only decisive test) had been altogether neglected, as in the cases observed by Leo-Wolf." But simple non-striated fibres are often formed as independent (fibroid) tumours, and causing hypertrophy of the muscular walls of cavities. The question then is, what is the real nature of the seemingly muscular fibres to be distinctly seen in the cyst removed from the urinary bladder by Mr. Liston? Of those somewhat more doubtful in the first case discussed by Mr. Spencer Wells, in his second case, and in the very interesting case of Mr. Maunder, which he kindly related to me, and which I am indebted to Mr. Henry Thomson for an opportunity of examining with the utmost attention, assisted with all his knowledge of these structures. A brief statement of the history of these cases may ultimately lead to some important investigations, and clear up a pathological question of the

(a) The treatise was at one time in my own library, but has been lost.

obscurest. For my own part, I feel disposed to reduce the whole phenomena to one simple law of morbid epigenesis of muscular fibres, real or apparent.

Hackney.

HINTS FOR CERTIFYING IN CASES OF LUNACY.

By J. STEVENSON BUSHNAN, M.D.

Fellow of the Royal College of Physicians of Edinburgh; late Senior Physician to the Metropolitan Free Hospital; Resident Proprietor of Laverstock House Asylum, near Salisbury, Wilts.

THERE can be but one opinion in the Medical Profession as to the hopelessness of being able to state in two or three lines, whenever doubt is possible, a sufficiency of facts either observed by one's self, or reported by others, to prove that insanity is present. Nevertheless, while the law stands as it does, the attempt must be made; and it has occurred to me that a few hints may be serviceable to those who have not yet had experience in the discharge of this burdensome duty.

A form, then, having been obtained from the proprietor of the Asylum to whose care the patient is to be consigned, it must be filled up according to law. And here it might be supposed that the marginal notes would be sufficient to guide and direct the several persons concerned. But this is very far from being the case. Mistakes constantly occur, causing much trouble and annoyance; and hence I venture to think these hints may be acceptable to the Profession. In the "Order for the reception of a private patient," which must be signed by a relative or friend, who is to state his occupation and place of abode, as well as the degree of relationship, or any other circumstances of relation with the patient, the patient's name occurs twice; and when first named he must be described as a lunatic, or an idiot, or a person of unsound mind; and here it is well to define the legal meaning of these terms.

Every person "*qui gaudet lucidis intervallis*," who sometimes is of good and sound memory, and sometimes "*non compos mentis*," is in legal phraseology a lunatic.

Every person whose mind from his birth, by a perpetual infirmity, is so deficient as to be incapable of directing him in any matter which requires thought or judgment, is in legal phraseology an idiot.

Every person who, by reason of a morbid condition of intellect, is as incapable of managing himself and his affairs as an idiot or a lunatic, not being an idiot or a lunatic, or a person of merely weak mind, is in legal phraseology a person of unsound mind.

Next comes the "statement," which is so plain that a mistake can only occur through great carelessness. But even here it is necessary to observe that where the person signing the statement is not the person who signs the order, the following particulars concerning the person signing the statement are to be added,—viz., name, occupation, place of abode, and degree of relationship.

We now come to the Medical certificates; and so strict is the law concerning them, that any informality exposes the proprietor of an Asylum to an action for false imprisonment.

The certifying Medical man is first to state in words his qualifications. He must not write, "I the undersigned being an M.D., or M.R.C.S.," but he must state himself to be a "Fellow or Licentiate of the Royal College of Physicians of London or of Edinburgh," a "Doctor of Medicine," of a University, a "Fellow or Member of the Royal College of Surgeons," or a "Licentiate of the Society of Apothecaries," as the case may be; he must state that he is in actual practice as a Physician, Surgeon, or Apothecary; and then he must also state the date when, and the place where, he examined the patient. And here it must be especially remembered that Mr. Justice Coleridge has distinctly laid down the law, that "a Medical certificate is invalid if there be not inserted therein the street and number of the house (if any), or other like particulars where the patient was examined."

The name, residence, and occupation of the patient is then inserted, and followed by a repetition of the patient's name, with the Medical opinion of his mental state,—that is to say, whether he be a lunatic, a person of unsound mind, or an idiot.

In this preliminary part of the certificate it is essential that no one particular above mentioned should be omitted, or inaccurately stated.

The certifying Medical man has now to state facts indicating insanity observed by himself; that is to say, to state the grounds upon which he has founded the opinion that the patient is a lunatic, or of unsound mind or an idiot. And here a deservedly high authority recommends that the symptoms should be classified under,—1st. The appearance of the patient; 2nd. His conduct; 3rd. His conversation. Or in other words, how he looks, what he does, and what he says.

"The appearance of the patient," says Dr. Bucknill (*Journal of Mental Science*, October, 1860), "may be meaningless or vacant, or melancholy and depressed, or frightened, or fierce.

"The demeanour and conduct of a patient may be childish and silly, or moping and inert, or destructive, or aggressive, or distinctive of peculiar states of emotion, as of vanity, pride, or fear.

"The speech of a patient may either indicate a negation of mental faculty by its absence, as in extreme idiocy and dementia; or intense pre-occupation, as in some forms of melancholy; or by its positive evidence it may bear testimony to all the phases of incoherence or delusion."

In order to strengthen the certificate it is as well to state facts indicating insanity observed by others; for example, the certifying Medical man may not have "observed" the patient attempting to commit suicide, but the fact may be communicated to him by others. This is not essential; but when such facts are stated, the name and degree, or kind of relationship to the patient, of the person communicating them, must be given. Thus, "Sarah Harris, the patient's nurse, informs me;" or, "John Jones, a neighbour, tells me." It is not necessary that the informant be a relative or friend.

To the certificate thus completed, the certifier's name and place of abode must be affixed. The certificate need not be filled up, signed, and dated on the day of examination; but the patient must be examined within seven clear days prior to admission to an Asylum. It is not necessary that the order for admission and the Medical certificate be dated on the same day.

The facts then to be stated, be it remarked, whether they be those observed by one's self, or those reported by another, must be symptoms of some form of mental derangement. It should at the same time be borne in mind that the gentlemen who by the actual state of the law are, in the first instance, made judges of the sufficiency of the facts stated, under either head, have not all received a Medical education, and therefore that technicalities should be avoided as far as possible; and that where there is a choice of symptoms, those should be selected to which popular belief attaches most credit.

And even were it otherwise—if the examiners of certificates were all Medical men—the necessity of this caution will be at once apparent from the fact, that during the past year no less than 8955 lunatics were admitted into Asylums in England and Wales. And when it is further remembered, that in every case the patient must have two certificates, and in certain cases three, the Profession will surely endeavour by a little care and attention to save the time and the labour of the Commissioners in Lunacy.

I think, then, that such a classification as the following, drawn from the Tables in the Official Report of the English Commissioners in Lunacy, will be useful, as pointing the attention to the kind of facts to be sought after; so that the first inquiry is, Under which of the following heads does the case fall?

I. Mania, under which fall—
   1. Acute Mania, or Raving Madness;
   2. Ordinary Mania, or Chronic Madness of a less acute form;
   3. Periodical or Remittent Mania, with comparatively lucid intervals;
   4. Recurrent Mania.

II. Dementia, or failure and obscuration of the intellectual faculties.

III. Melancholia
IV. Monomania
V. Moral Insanity
} Partial Insanity.

VI. Congenital Idiocy.

VII. Congenital Imbecility.

VIII. General Paralysis of the Insane.

IX. Delirium Tremens.

X. Epilepsy, or Chorea, accompanied with mental aberration, permanent or temporary.

Mania.—Mania is a disease of the impulses or propensities,

while the intellectual functions are more or less disturbed. There will usually be little difficulty in obtaining facts from others indicative of the presence of mania. The period of incubation, though often short, frequently affords striking features. Changes in the habits and modes of thinking, constituting the natural character of the patient, are sometimes so great as to furnish decisive evidence; and when the disease is fully formed, there can be rarely any difficulty of obtaining sufficient facts in respect to delusions, violence, destructiveness, disregard of decency, neglect of cleanliness, and the like.

The division of mania into the several forms above enumerated, raving madness, chronic mania, intermittent mania, and recurrent insanity, is not to be regarded as representing so many distinct diseases; for it very often happens that these are merely successive states which the insanity assumes in one patient. A person after a longer or shorter period of incubation, may first show symptoms of acute mania, and after a time, fall into a state still characterised by the like aberrations, but of a less vehement and excited kind, which last is chronic mania. After a longer or shorter period he may cease to show any evident signs of mental aberration,—that is, he may have what is called a lucid interval, and then the disease comes under the head of what is termed intermittent mania. It would, however, be a great mistake in most cases to regard what is named a lucid interval as a period of complete freedom from the disease. Recurrent mania, or rather recurrent insanity, is an expression of no great special utility, as it merely denotes that an attack of mania, or indeed an attack of any other form of insanity that is curable, may, after it is cured, recur at irregular intervals.

Mania; acute mania, or raving madness. The state of high excitement which distinguishes the typical forms of acute mania, cannot continue very long without destroying life by exhaustion and want of repose. If the patient survive any considerable time, it must necessarily pass into some lower form, such as chronic mania or dementia. In the first stage of acute mania there are a great many symptoms of much significance to a Medical man, but which will hardly suffice for reasons why a man should be held to be insane. Thus the first symptoms are often high spirits. It could not be tolerated that a man should be shut up in an Asylum merely because he had been observed to have an exuberant flow of spirits. Nevertheless, if a man naturally of a sedate turn of mind comes to show an unceasing exhilaration without cause, there can hardly be any stronger ground for the suspicion of his being on the verge of insanity. Again, if a man habitually of a quiet demeanour, accustomed to think, speak, and act with grave deliberation, begins to bustle about and do everything in a hurried manner, assuming new airs, talking loud, and strutting in his gait, and all this for a considerable period of time without any such ground for exhilaration, as that he has had, or expects to have some great stroke of fortune; without having gained a horse race, succeeded to an estate, or that he is about to marry a wife, he is surely on the brink of madness. Again, if a man fond of society and given to social intercourse with friends and neighbours, and delighting to partake in common pursuits and amusements along with them, suddenly becomes altered in his tastes, indulges in long reveries, and betakes himself to solitude, he is most probably under the incubation of mania. Moreover, under the incubation of mania the patient begins to entertain unfounded suspicions of friends and relatives, and this symptom will prove the stronger evidence in a person known previously to be of an unsuspicious temper. A change in the natural affections, as of a husband to his wife, or a wife to her husband, or of a parent to a child or children, is a token of the like effect. A change in the turn of the mind as respects religion, as when previous indifference is succeeded by a sudden inclination to be continually at prayers, or when a devout temper is all at once exchanged for profane language and conduct. When there is previous despondency, the actual disease most commonly approaches slowly and insidiously; on the contrary when there has been previous high excitement, the disease often developes itself all at once. Thus there may suddenly arise indescribable sensations in the head, causing the patient to utter loud shrieks, while he runs up and down his room muttering to himself.

At this stage some very extravagant thoughts are apt to betray themselves in speech, which the patient will most usually attempt to justify instead of attributing them to the uneasiness under which he is suffering. He is apt then also vehemently to deny that he is mad, though no one has intimated any suspicion that such is the case. Hence, if there be any circumstances which betray a patient's suspicion that he is becoming mad, if he takes pains, without any insinuation of his being so affected, to convince those around him that he is not mad, there is a fact obtained indicating that mental alienation is present.

Among the evidences of the actual presence of mania are the following: the ideas are confused, incoherent, or morbidly rapid; the muscular force is often augmented; the excitement assumes on the forms of excessive restlessness, irregular muscular movements, cries, shrieks, threatening words and singing; the events of the patient's past life are often forgotten, or make but a slight impression for the moment; sometimes particular events are dwelt on with much exulting exaggeration, even by persons previously accounted free from vanity; the purposes which arise in the mind are not fixed and determinate, while the efforts of volition are vague and unsteady; lively and sad emotions succeed each other by turns, without obvious cause, and there is often little interval between tears and laughter; there is often an extreme indifference as to everything past, present, and future; even the illusions and hallucinations make but little impression, being transitory, and not dwelt on with the pertinacity which belongs to partial insanity; maniacs in general show no fear, and recklessly attempt to overcome insuperable impediments to their momentary course.

Much of what has now been said applies to all the forms of mania, and some part even to insanity in general. It will be needless to go over the more subdued symptoms of chronic mania.

Of the renewal of an attack of mania after a longer or shorter interval of sanity one circumstance has been remarked, which may be of much importance, namely, that while a maniac often gives no account immediately on his recovery of what passed in his mind during the attack, he begins to recount his inward thoughts and feelings on that occasion just before the recurrence of a new attack. Hence, by carefully observing such a patient, a fact indicative of the return of insanity may be obtained.

Dementia.—Of dementia it will be sufficient to bear in mind such an outline as the following: succession or interrupted alternation of a few insulated ideas and evanescent and unconnected emotions; continually repeated acts of extravagance; complete forgetfulness of every previous state; diminished sensibility to external impressions; abolition of the faculty of judgment; perpetual activity.

Among the evidences of the presence of dementia are: the perceptions obscure, feeble, and of short duration; external objects make too little impression to allow of comparison or judgment respecting them; attention and memory are much enfeebled or entirely lost; the ideas, few in number, are incoherent and incongruous; the patient often repeats words or sentences, utterly unconscious of their meaning; his emotions are usually as feeble as his intellectual faculties; he is scarcely capable of desire, aversion, joy, sorrow, pleasure, or pain; he will hardly change his posture to relieve himself from suffering; he is averse to exercise; he has sometimes a kind of automatic movement continually repeated; or unceasingly assumes one particular attitude; he is sometimes inclined to mischief, and will destroy or disarrange whatever comes in his way; he is sometimes silent; he inclines also sometimes to dress himself up in a grotesque manner; the features are relaxed, and the eyes without expression, dull, suffused, or watery; the look is unsteady, the visage stupid, vacant, and meaningless; sometimes, however, there is a look of astonishment in the countenance; he has occasionally a disgustingly depraved appetite. Dementia differs from mania and monomania chiefly in the want of energy in the intellectual functions, and particularly in the defect of the power of attention and in the paucity of ideas.

(To be continued.)

THE members of the St. Helier's Medical and Surgical Society held their Annual General Meeting on July 25 last, at the Society's rooms in Bath-street, and elected the following office-bearers for the ensuing year:—*President:* Dr. Charles Vaudin. *Vice-Presidents:* Dr. Alex. Leigh and Dr. M. Blood. *Treasurer:* Dr. Kitchener. *Secretary:* Dr. H. J. Hirschberg. *Council:* Dr. Joseph Dickson; Dr. John Fixott; Dr. Alex. Low; Dr. John L. Cronier; and Dr. Alfred Godfray.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

CASES OF RECOVERY FROM EPILEPSY.

The following four cases are instances in which recovery from epilepsy has followed treatment, or perhaps it may be safer to say, in which for a considerable period the fits have been absent. In each the treatment was different,—in one by belladonna, in another by quinine, in another by iron, and in the fourth by bromide of potassium, belladonna, and oxalate of cerium. It is not possible, therefore, to draw from them any general rule for the treatment of epilepsy. They show rather that cases, although grouped by name in one category, require different treatment. In reality, these cases probably differ essentially, agreeing in this only that they are cases in which, on a certain more or less persistent diseased condition of the nervous system, attacks of convulsion supervene. It would appear, then, that instead of searching for a specific for epilepsy, we should, as in other diseases, treat the individual cases according to their nature, as well as the general condition in which they more or less agree. In a future Number we shall endeavour to lay before our readers the various methods adopted in the Hospitals of treating epilepsy, and also, what is important, the treatment for the prevention of the paroxysm. We now give the details of the following cases as we have received them :—

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

EPILEPSY FOLLOWING AN ATTACK OF MENINGITIS—CONVULSIONS LIMITED TO ONE SIDE OF THE BODY, PRECEDED BY AN AURA FROM THE HAND—RECOVERY UNDER THE USE OF BELLADONNA.

(Under the care of Dr. BROWN-SEQUARD.)

Henry B., aged 21, single, barman, was admitted in August, 1860. His mother has been eight times pregnant (three miscarriages), and has five living healthy children. The patient is the second living. His father's cousin died of consumption, and his mother's nephew of the same. There is no further history of this disease, and none of "gout," nor "rheumatism." His mother's mother had paralysis between the ages of 50 and 60, and one of his mother's aunts also. His father's sister had "fits" from childhood to the age of 60 or more, when she died. A cousin of his mother's was insane.

A cross-birth, but no history of asphyxia when born. He did not walk until the age of 16 months. (All his brothers and sisters walked as late as this.) He talked early. When two months old he had "inflammation" of the chest. He had also measles and whooping-cough, but not badly. There is no history of rickets. He has, although a barman, been temperate. His general health is good; he never had rheumatism, and never syphilis.

He is an intelligent man; steady; can read and write well, and attends to his business.

Hair brown, eyes grey, teeth good. General conformation of head good.

No marriage of consanguinity. The epilepsy appears to have followed an attack of what he calls "erysipelas." He said that he began to be ill in August, 1856, by great pain in his face and in left eye, and great fever. He became "insensible," and was convulsed the same night; but it is not certain whether he bit his tongue or not. The same night he had five or six convulsive attacks. His mother believes, but will not be certain, that the left side only was affected. The next day the left side was paralysed, and he continued insensible. He had a fit this day (the second), but no succession of fits. The insensibility lasted four or five days. He was ill altogether, *i.e.* indoors, about three months. The "erysipelas" was on the left side of the face and below the eye, which was never inflamed. He squinted, but with which eye is not known. It is clear also that he was for some time really blind, there being no swelling nor inflammation about the eyes to account for it. Leeches to the temple were applied, and incisions made.

Since the "erysipelas" he has had a fit regularly once a month until September, 1860, since which time he has never had a fit. He was admitted under Dr. Brown-Séquard's care, August 15, 1860.

The fits generally came on in the day. He knew when they were coming by a sensation of numbness in all the fingers of the left hand, especially in the little finger. This was about five or ten minutes before the fit. He had also a "sort of cramp" running up the arm, but only as far as the shoulder. He then had the fit. There was no giddiness before the real fit. His head turned round to the left side; he had "working of the eyes," and he was convulsed on the left side of his body. He was always quite insensible; bit his tongue; was in the fit ten minutes. Slept two hours after. He had also headaches before and after.

The eyes are now quite right in every one of the details except as follows:—For some time after the erysipelas he had double vision, which coincides with the history of squinting given above. He had no drooping of the lid, so that probably it was not due to paralysis of the third nerve. He says that he cannot see so well with the right eye as the left. On ophthalmoscopic examination the optic discs, especially the right, appear large, flat, and not so well supplied with blood as is normal. There is no paralysis of the face. He speaks well, but says that when flurried he speaks badly, and also that he speaks badly after meals; his hearing until the last few days was quite good in both ears.

August 15, 1860.—Ext. bell. gr. $\frac{1}{4}$, ext. hyoscy. gr. j., tinct. rhei. ʒij. ter die. Emp. lyttæ, 2 × 2 to the vertex.

On September 26 he had a fit, which was the last.

On October 29 he had another blister, and November 4 a blister round the arm. He took the mixture of belladonna, etc., until June 26, 1861, when it was changed for pil. belladonna and quinæ ij. bis die.

[January 26.—He has an attack of inflammation of the ear, attended by discharge and great pain, which has kept him awake several nights. It began by pain over the mastoid process, extending down the neck on that side, where there is now swelling and tenderness. He is now quite deaf on that side. Dr. Brown-Séquard directed attention to one symptom of which the patient spontaneously complained, viz., that when he pressed on the wool in his ear certain giddy sensations came on, as if he were going to fall. No further altered condition, except that he still has a little jerking in the right leg. Soon after this note this also disappeared.]

Several things mentioned in the report of this case require comment. The notes of it are taken according to a certain formula, in columns, in the headings of which the points on which it is considered desirable to inquire are entered. Each paragraph contains the facts taken under a column. To give the headings here would take up too much space, and to give all the detailed replies would take up more. In this instance, therefore, many of the negative replies—as, for instance, that there was *no* injury, etc.—are not put down. At the same time, a sufficient number of replies, not bearing specially on this case, are entered, in order to show the general plan. It is not pretended that the order is a natural one, but one of convenience,—a mechanical method of getting most easily at the most facts. It does not, however, prevent the inquirer from receiving and recording a plain tale in the patient's own way of telling it,—the "fixed and formal questions" being a supplement to the more easy descriptions, which may be defective in many particulars. A case taken according to any such plan must necessarily be stiff, and wanting in life, containing many things about the patient bearing very little upon his present ailment. In the first paragraph is given the family history of the patient; in the next, the personal history. The first question in this column is made in consequence of the opinions enunciated by Dr. Little as to the influence of asphyxia at birth on the future development of the nervous system. This and most of the queries in this paragraph are scarcely relevant to the case, but they are put down to show the order in which cases of epilepsy are taken on the method described.

In this case there appears to have been a tendency to brain disease in the patient's family; but his seizures date from a

definite attaek of what he ealls "erysipelas." Very likely it was erysipelas, the brain or membranes being secondarily affected. As, however, he had in January last,—*i.e.*, when cured of the epilepsy,—great pain over the mastoid process, and reflected pain in the head, it is possible that he may have had an attaek of inflammation of the membrane in eonnexion with disease of the temporal bone (of which we have reported several examples), although there is, however, no definite evidence of this. In this Journal for February 23, 1861, we reported a case in which a patient who had epilepsy for two or three years, at length died of abscess in the cerebellum, eonsequent on disease in the ear. There is, unfortunately, no evidence as to whether there were any local symptoms about the ear during the period of epilepsy.

In another column is noted, but very meagrely, the physieal conformations. The note as to the teeth is made, as several cases of eerebral disease have been in the Hospitals lately in whieh there was the malformation of the teeth deseribed by Mr. Hutehinson as indicative of constitutional syphilis.

Probably the seat of the disease in the head in this case, wherever it may be or have been, is in some definite spot on the right side, being opposite to the side in whieh the patient was convulsed. The fact that it was preeeded by an aura from the fingers does not invalidate the idea that there may have been some central lesion. Dr. Brown-Séquard lately mentioned a ease under his care in which there was tumour in the brain, produeing epilepsy. Not only was there an aura from one of the limbs, but the fits were arrested by the ligature. A tumour in the brain was found at the autopsy.

EPILEPSY FOR THREE YEARS—TREATMENT BY BROMIDE OF POTASSIUM AND BELLADONNA—NO IMPROVEMENT—TREATMENT BY THE OXALATE OF CERIUM—NO FIT FOR THREE MONTHS.

(Under the care of Dr. RAMSKILL.)

J D., aged 19, a eowkeeper, had had epilepsy three years. Father and mother alive and well; has three brothers also well. No history of fits in the family. Never had any illness that he remembers. First fit came on in the night: he bit his tongue. A second attaek occurred in fourteen days; and they have reeurred about once in fourteen days—sometimes once a-week—since. Has no *petit-mal*. The fits occur about equally as to night and day. Convulsions equal on both sides of the body. Has always a warning of the approaeh of a fit. It consists in a feeling of faintness, and of something turning upside down at the scrobiculus cordis. He then, sliding down, turns pale, loses eonsciousness, and experiences the ordinary phenomena of a fit. No sequelæ of note. No interparoxysmal phenomena. Memory fairly good; apprehension and attention also beyond the average in epileptics of his standing. Pulse large and soft. Organic functions well performed. He is tall, fair-haired, blue-eyed, has a ruddy and, superficially looked at, very healthy complexion. He is fat for his years; has grown much lately.

On stripping this patient for more careful examination, the penis was observed to be exceedingly large, flabby, and on careful questioning, the patient confessed that he had practised to great exeess masturbation, and that he believed the fits to be due to this vice. He asserted that he had long abandoned this praetice (such patients always say so), and that still the fits eontinue.

On January 28 he was ordered 10 grains of bromide of potassium, with one quarter of a grain of belladonna three times a-day.

February 25.—The medicine has been taken regularly without any effect on the fits; has had two attacks. To increase the belladonna to one-third of a grain, and the bromide to 15 grains.

March 11.—The fits returned at the usual time, or ending period of fourteen days. The patient denies having continued masturbation. Does not observe any diminution or otherwise in sexual desire, is just in every respect as before, exeept that his throat is dry, and his internal sensations are, if anything, worse, and longer just before a fit; in addition, he feels considerable nausea both before the fit and after the stupor has passed away. Appetite good. To have half a grain of oxalate of cerium twiee daily on an empty stomaeh.

28th —Has not had any fit, nor any warning of one.

April 11.—No fit.

29th.—No fit.

Dr. Ramskill saw this patient onee in June; he had not had a fit.

WESTMINSTER HOSPITAL.

EPILEPSY, ACCOMPANIED WITH LOCAL NUMBNESS AND A WELL-MARKED AURA, TREATED WITH QUININE WITHOUT LOCAL REMEDIES.

(Under the care of Dr. ANSTIE.)

Charles R., aged 24, of healthy parentage, had never suffered any illness of eonsequenee previous to his present malady. In January, 1860, he was, and had been for some time, living the life of a sailor. His ship was then in Chinese waters, and he declares that he had been living a temperate and sober life. One day he was out on the fore-topsail-yard, when suddenly the fingers of his left hand began to twitch, and the hand felt very numb. He struck it upon the yard "to bring it to life," but the numbness and twitehing increased, and now his hand was jerked several times spasmodieally behind his baek. He was a good deal frightened, and turned to get baek into the rigging, but before he could aeeomplish his purpose he lost his senses, and fell headlong into the foretop, a distanee of about six feet. He remained insensible for three weeks, at the end of which time he regained eonseiousness, and felt quite well, only weak. The Surgeon assured him that he had done himself no damage by the fall into the top. Soon after his recovery he went on shore "for a lark," though it does not appear that he committed any great excesses. On returning to the ship, however, he immediately had another fit, after which he remained insensible for two days. During the eight months which elapsed before he got baek to England he had a great many fits, but in none of them did he bite his tongue. Arrived on shore, he seems to have been treated with tonies, and to have remained free from fits, or threatening of fits, during three months.

In January, 1861, he went snow-balling for an hour eontinuously; at the end of this time his left hand beeame numb, and the fingers began to twitch, and the hand to be drawn behind his back, as on previous oecasions. By the adviee of a friend he plunged his arm in hot water, and kept it in hot water, frequently renewed, for an hour; the numbness then disappeared, and the twitching ceased.

From this time to April 24 he had no trouble; but on the latter day, as he was putting up the heavy shutters of his master's shop in London, he felt the old premonitory symptoms, and was obliged to drop the shutter: next day he applied to Dr. Anstie, at the Westminster Hospital. He was a short, thiekish, museular man, very well developed, but with a peculiar bluntness of feature, a dilated sluggish pupil, and a somewhat absent manner. He eomplained of a permanent numbness of the left hand and wrist, and said that he dreaded lest it should reach the middle of the forearm, for "when that happened he always had a fit." He was ordered four grains of quinidine three times daily, and to take a fair amount of nourishing food and stimulants; he persevered in this eourse for three weeks, and at the end of that time he was quite free from all his unpleasant symptoms.

On June 24 he was again engaged in putting up the shutters, when the old numbness and twitching came baek, and he was obliged to go indoors and lie down for an hour, feeling scareely in his right senses. On the following day he applied to the Hospital, and complained that the numbness of the left hand had again beeome permanent, and that there were oecasional twitehings of the fingers; he was ordered the quinine as before, and in a month he was quite well.

On November 10, while the patient was engaged in some heavy lifting work, the old symptoms returned, and on the following day he applied to the Hospital, but saw some one to whom the history of his case was unknown. In the evening of the same day, as he was wheeling a truck in the street, the hand twitched violently, and the patient fell down in a fit, the first he had had for fourteen months; and now for the first time he bit his tongue. Next day Dr. Anstie saw him and prescribed the quinine as before, and, as he suffered a good deal from headaehe, a small blister to the nape of the neck was ordered. Before either of the prescriptions eould be earried out, another severe fit oeeurred, and again the patient bit his tongue; he was insensible for some time. From the moment, however, that he began to take the medicine, the numbness lessened, and it quiekly disappeared, so that on Deeember 10 he was discharged. He has once since been under treatment for a eomparatively slight attaek

of numbness, which vanished under the use of a few doses of quinine.

Dr. Anstie considers this case interesting, as affording an instance of an unusually well marked aura (starting always from a part of the body which was affected with a permanent numbness), proving trifling and abortive, or serious and the actual precursor of a fit, in proportion as the local numbness was small or great; and capable of being arrested, without the use of any local remedy, by quinine. That some such local measures as the use of a ligature, or of the actual cautery, might probably have been useful, there is great reason to believe, from the success of the amateur experiment with hot water. But local remedies were purposely neglected in order to test the effect of the quinine, and this was so rapid and satisfactory, on each occasion, as to leave nothing to be desired. Concurrently with the diminution of the local numbness and twitching, the complexion of the patient, which was apt to be sallow when a fit threatened, always cleared perceptibly, and the expression of the face became brighter and less absent. It is quite possible that the prodromata may some day return, but, if taken in time, it seems probable that the quinine would be sufficient to ward off the occurrence of a fit, and to banish the local symptoms.

It is right to state, in conclusion, that the most searching inquiry failed to afford the slightest reason to believe that any injury was occasioned to the head or spine by the fall into the foretop on the occasion of the first fit.

July 25.—Dr. Anstie informs us that the patient was seen two months ago, and had had no return of the fits.

ISLINGTON DISPENSARY.

ATTACKS OF EPILEPSY FROM INFANCY—TREATMENT BY THE SESQUICHLORIDE OF IRON—RECOVERY.

[Communicated by Dr. Sutton.]

Thomas B., aged 7, was admitted, under the care of Dr. Sutton, for epilepsy. The history obtained from his mother as to his early life is as follows:—

He was when born a fine, healthy, large infant, and continued in good health until the fits came on, at nine months old; but from his birth he was very irritable, and continually crying. The first fit came on with "violent screaming," and twelve hours afterwards he had another fit, and then lay insensible for three days. He had a third fit two months afterwards. He was then leeched, blistered, and purged. The intervals between the fits gradually diminished, and, at the same time, they became stronger. When the fits were frequent he lost flesh very quickly, and as quickly regained it in the intervals. The child still continued in good general health. There was no evidence of any ill health. His first tooth was cut six weeks after the first fit. His mother accounts for the first by her having gone through a great deal of trouble whilst pregnant, the first four of the nine months having been confined to her bed.

When first Dr. Sutton saw him he had had the fits six years and three months. The expression of his face was then imbecile. He looked sickly, was bloated, and of pale complexion. The pupils were largely dilated. He was very mischievous, not being able to remain quiet for two minutes together, and was incapable of tuition. His pulse was feeble, irritable and quick. He did not suffer from worms, nor complain of pain in the head. He had attended two Dispensaries and one Hospital, without deriving any permanent benefit. Four leeches were applied to his head, and a blister kept open for three weeks, and whilst open the fits did not come on, but returned very shortly afterwards. He had been attended by a Medical man in a severe attack of scarlet fever, six months before Dr. Sutton saw him. On his admission, the fits were as frequent as two or three a-week, each fit lasting on an average about an hour; if it did not last more than half an hour, he was sure to have a second the same day. His mother stated, "I generally knew the fit was coming on for about four or five days beforehand. He would wake up in the night screaming dreadfully, staring wildly around, appearing insensible, but not convulsed. This would continue every night until the fit came on, which always followed these screaming attacks. Another sign of the fit coming on was his pushing his head under the pillow, and covering his eyes with the bed-clothes, or anything he could take hold of. Just before the attack his head was very hot, and the perspiration streamed off his forehead, but he never complained of pain. For eight or ten hours before the fit he used to hang about me and cry to be near me, yet he never seemed to have the least knowledge that he was about to have a fit. He always eat very ravenously for a week before he had the fit. Sometimes he would shriek violently, at other times lay his head on my shoulder and go off into a strong fit; never complained of pain, nor of any particular sensation starting from any part. He would suddenly fall down perfectly insensible, remain quite still (no convulsive movement) for a variable time, and appear as if dead, so much so that I used to think he really was dead. He was deadly pale, and when I placed my hand on the pit of his stomach, the skin was very cold, as well as his hands and feet. If his hands or feet were lifted up, they dropped down again listlessly. His eyelids closed, and if raised his eyes rolled from side to side. Mouth firmly closed. As he began to come to, his face became livid, veins of the neck, lips, and mouth swelled very much, and there was a convulsive movement in all his limbs. Foamed at the mouth, and always passed his water and fæces involuntarily. This would last for about a quarter of an hour, and then gradually diminish, when he would pass into a sound sleep, from which when he awoke he would often get out of bed and play as usual, with no recollection of the fit. Has had fits through the night, but more frequently during the day."

Dr. Sutton prescribed tincture of the muriate of iron in doses of six minims, which was gradually increased to fifteen. Aperients of compound rhubarb pill were ordered also.

For the first six weeks after taking the mixture, the fits were more frequent, and he became more irritable, so much so that the mother wished to discontinue the medicine, as she was sure it made him worse; but this irritability he gradually lost. About a week after he began to take the mixture he had the worst fit he ever had, and Dr. Sutton expressed an opinion that he would not recover from the comatose state in which he remained for ten days.

From this time the fits diminished in strength and frequency; two months after he began to take the mixture he had no fits, and has never had fits since. The mixture was taken regularly for twelve months. For the first six months, three times a-day, then twice, and during the last three months only once a-day.

This boy had previously taken sulphate of zinc, oxide of zinc, nitrate of silver, and cotyledon umbilicus; and nearly all the standard remedies had been tried. Dr. Sutton first gave him a grain of sulphate of zinc three times a-day, but only for a fortnight, and with no benefit. He had no advantage in the way of food, for drunkenness deprived the wretched children, of later years, of a sufficiency of even the necessaries of life.

March 1, 1862.—Nine months ago his mother called on Dr. Sutton, stating that her boy had been very well until about a fortnight before, when he became very irritable, and at times very violent. He complained of stabbing pains, like knives, darting through his head. He could eat his food well. His bowels were regular. He again took the iron mixture for a month; all the pains disappeared, and from that time to this he has not complained. The mother attributed this slight relapse to his having been working in a manufactory.

Dr. Sutton remarked on the treatment:—"I have now given the tincture of the sesquichloride of iron in a great many cases (the number I am unable to state just now). The first thing that struck me was, that in the commencement, if it will exert any beneficial influence on the fits hereafter, it generally at first makes them worse. This continues for a few days, or a week or two. 2nd. That I have never seen any benefit derived from the sesquichloride of iron when prescribed in the cases of adults, although they may be of recent origin. (This I have thought was owing to some organic disease of the brain, either causing or caused by the fits.) 3rd. That it has some peculiar action on the brain; for most of the patients have particular sensations after taking it. One man I prescribed it to, said, 'About a quarter of an hour after taking the mixture I felt as if my brain was being tied very tight.' Another, 'As if something was lifted off his skull, and immediately gave relief.' (This last was a case of hemiplegia.) Before giving the sesquichloride of iron, I have prescribed the citrate of iron, without seeing any benefit from their use. The sesquichloride of iron in the preparation of tincture in these cases appears to have a different effect from any other preparation of iron."

MIDDLESEX HOSPITAL.

CASE OF MULTILOCULAR OVARIAN TUMOUR—OVARIOTOMY—DEATH—AUTOPSY—CLINICAL REMARKS.

(Under the care of Dr. PRIESTLEY and Mr. MITCHELL HENRY.)

[Reported by Mr. SPANTON, Resident Obstetric Assistant.]

AGNES W., aged 21, single, admitted into Prudhoe Ward on March 5, 1862. About a year before, the patient noticed a small swelling in the right iliac region, which had gradually increased up to the time of admission. The tumour had of late caused much inconvenience, but little pain. Previously the patient's general health had been good. The catamenia ceased during the last five months; had been before quite regular.

On admission, her general health was tolerably good; there was no evidence of any organic disease. The whole abdomen was found to be occupied by a large multilocular, partially fluctuating tumour, having apparently very slight adhesions, containing much solid matter, and pushing the uterus downwards and backwards. The girth at the umbilicus was 36½ inches. One cyst had been tapped by Dr. Priestley six weeks before, when 27 pints of flaky albuminous fluid were drawn off. It was then decided that ovariotomy ought to be performed, and for this purpose the patient was admitted. The weather was then, however, unsuitable, and the operation was postponed. In about a month after admission the girth of the abdomen at the umbilicus had increased to 40 inches.

On April 23 the operation was performed in the ward by Mr. Henry, in the presence of the Surgeons of the Hospital, Mr. Spencer Wells, Dr. De Mussy, and others. The ward was heated to 73° F., the air being moistened by steam from boiling water. An enema was administered and the bladder emptied a short time before the operation. The patient was placed under the influence of chloroform before any person, except the operator and his assistants, was admitted. Mr. Henry commenced by making an incision about four inches in length through the abdominal parietes, in the median line, dividing all the structures except the peritoneum. This was divided on a director, allowing a small quantity of ascitic fluid to escape, and the sac was brought into view. It was found adherent to the free edge of the omentum throughout, and was separated by means of the fingers, though not very readily. The sac was then seized with vulsellum forceps, and tapped with a large trochar such as is used by Mr. Spencer Wells, and about 14 pints of glairy, flaky fluid were drawn off. The collapsed cyst was then partly withdrawn from the abdomen, and the canula secured in it by a strong ligature. A second cyst was then tapped through the first one, but the contents were too viscid to flow freely through the canula. The partially collapsed tumour was then withdrawn from the cavity of the abdomen; but in doing this one of the cysts was ruptured, allowing a portion of its contents to escape into the peritoneal cavity. The lower portion of the tumour consisted of a mass of smaller cysts, some quite solid; this was readily withdrawn, and the pedicle—which was long and narrow—secured with an *écraseur* clamp, and then divided. The fluid which had escaped into the peritoneal cavity was removed by means of sponges; the omentum, which did not appear to bleed much, was returned, and the wound secured by means of three hare-lip pins, and silver wire interrupted sutures. The pedicle, which was at the lowest part of the wound, was surrounded with oiled lint, the whole wound was covered over with collodion, and over this was placed cotton wool and a flannel bandage. The patient bore the operation well, which occupied nearly forty minutes.

After removal to bed, the patient was calm and comfortable. Pulse 124, firm. Respirations 36. Retching soon came on, which was immediately relieved by sucking ice. When quite recovered from the chloroform, she took thirty minims of tincture of opium in some wine. 5 p.m.—Has dozed a little; is now rather restless. Pulse 120. Frequent retching, quickly relieved by ice; no vomiting. 7 p.m.—Complains of much pain in the back, otherwise cheerful. Pulse 116. No vomiting. She has taken some beef-tea, which has been retained. Urine drawn off by catheter. 9.30 p.m.—Pulse 120. Respirations 36. The anodyne draught repeated, but most of it immediately rejected. 11 p.m.—Slept quietly for an hour. Has since vomited several times. Pulse 116. Has taken some wine and beef-tea.

April 24.—12.30 a.m.—Countenance very pale. Vomiting frequent. Still complains of much pain. An enema of port wine and beef-tea administered. 1.30 a.m.—Pulse 126. Respirations 44. No vomiting. A pill containing one grain of opium was given. 2.30 a.m.—Quieter. Complains less of pain. Still frequent retching. About 8oz. of urine drawn off. Enema of wine and beef-tea repeated. 4 a.m.—Became suddenly very faint. Pulse almost imperceptible. Face extremely pale and anxious. Skin cold and clammy. The pedicle was found to be oozing a little. The ligature was tightened, and the bleeding, which had been but slight, was stayed. 5 a.m.—Rallied a little since taking brandy and wine freely. Very restless. Pain in the back severe. Pulse almost imperceptible. Twenty-five minims of tincture of opium were given in some brandy-and-water, and the enema repeated. 6.30 a.m.—Complained so much of pain that a linseed poultice was applied to the abdomen. This afforded much relief. Stimulants were freely given, but she became gradually weaker; there was increased restlessness, and subsultus tendinum, and she died at 9 a.m.—eighteen hours after the operation.

On examination after death, there was no general peritonitis: the peritoneum was more vascular than usual, and the cavity contained about 50oz. of thick, bloody fluid, in which were no clots nor pus. The wound had not healed; there was no effusion of lymph. The omentum was found torn into shreds, and the ends of its vessels surrounded by small blood-clots. The left ovary was large, and contained numerous small cysts. Uterus healthy. Lungs congested; tissue healthy. Liver, 40oz., pale, fatty. Heart, 7¾oz., flabby, fatty. Kidneys flabby and pale.

Remarks.—The fatal issue in this case, Mr. Henry remarked, was to be attributed to the shock of the operation, and to the internal hæmorrhage which afterwards ensued. An interesting point in connexion with the termination of the case is the fatty condition of the heart and liver. This state of the viscera of course diminished materially the chances of success in the operation. The rupture of the cyst during the operation was unfortunate. Mr. Henry would advise that in order to obviate as far as possible this *eontretemps* in any future operation, and to prevent any fluid from entering the cavity of the abdomen, that instead of one, several large trochars should be used, each cyst being separately tapped. In this case it is clear that it would have been well to have secured the omentum by ligature with the pedicle, and to have removed the greater part of it, as in an ordinary case of hernia, rather than incur the risk of hæmorrhage from its torn vessels afterwards. These minor points seem to be those which are of most interest, because most instructive.

LUXURIES FOR SOLDIERS IN HOSPITAL.—Many ask, What can we do for the relief of our soldiers in Hospital? One most valuable and easy form of kindness may be mentioned: Send them fruit. There is an abundance of cherries, raspberries, and other fruit hanging on the trees and bushes in the vicinity of New York, which the owners would be glad to give for the refreshment of the soldiers. Nothing is more eagerly and gratefully received. Nothing moistens the lips and cools the blood like fresh fruit. A handful of cherries is often received with a delight which can hardly be imagined by those who daily enjoy the luxury.—*New York Paper.*

LUNATIC ASYLUM FOR THE CITY OF LONDON.—On July 29, in the presence of several of the Aldermen, and many of the rest of the Common Council, some of the Lunacy Commissioners, and of the Magistrates of Middlesex, the foundation-stone of a Pauper Lunatic Asylum for the City of London, intended to accommodate 250 patients, and estimated to cost nearly £50,000, was laid at Stone, near Dartford. Such an Institution has been long needed in the interests of humanity, and the Corporation of London have undertaken to establish it at their own voluntary cost, rather than submit to the imposition of a county-rate for the purpose, foreign as they conceive such an imposition would be to all their traditions. The site chosen for the intended Asylum consists of upwards of thirty acres of ground, in a commanding and healthy locality between Dartford and Greenhithe, and has been bought for the purpose of Mr. Charles White, a citizen and a landed proprietor in the neighbourhood, for about £3300.

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Medical Times and Gazette.

SATURDAY, AUGUST 2.

DIALYSIS.(a)

Human ingenuity is advancing the art of chemical analysis with rapid strides. It is becoming no easy matter to keep oneself at all *au niveau* with the discoveries in this department of science. While yet fascinated with the beauties and subtleties of Spectral Analysis, our attention is claimed for another analytical discovery, less beautiful it is true and less subtle, but susceptible of much wider application, yielding results of greater practical value, and therefore possessing more immediate interest to us as Medical men. We allude to the discovery of Dialysis, which we owe to Mr. Graham, the present Master of the Mint. It may fairly be described as a kind of royal road or short cut, enabling us to arrive at analytical results previously unattainable, or attainable only by processes far more complicated, far more open to fallacy. Except in rare instances it employs no chemical reagents; it achieves its end merely by availing itself of certain physical properties inherent in the substances to be analysed. Our readers may possibly welcome some account of the principle of this new analytical process, the mode of its practical application, and the peculiar, valuable results it enables us to attain.

Dialysis may be defined as analysis effected by liquid diffusion,—in other words, the separating of liquid substances from each other by taking advantage of their different rates of diffusibility under particular circumstances. Our knowledge of the laws of liquid diffusion was exceedingly imperfect up to the summer of last year, when Mr. Graham published the results of his elaborate researches on the subject. So much of these results as is necessary in order to understand the principle of Dialysis, we will endeavour very briefly to explain.

Firstly. There is a great difference in the diffusibility of different substances in the liquid state, just as there is in the gaseous state. If by means of a pipette we convey a solution of any substance (a salt for instance) to the bottom of a jar of distilled water so as to form a distinct stratum, and then leave the jar undisturbed in a uniform temperature, the dissolved salt will always diffuse into the superincumbent water at a certain rate within a certain time. This rate will vary with the nature of the medium into which diffusion takes place; if, for instance, some other fluid be used instead of water. Briefly expressed, the fact amounts to this,—that "different substances in solutions of equal strength diffuse unequally in equal times." (Redwood.) For instance, common salt diffuses into water twice as fast as Epsom salt, and this latter twice as fast as gum Arabic. Again, if instead of a single substance we convey a mixed solution of two or three substances to the bottom of the said jar, these substances, notwithstanding their mixture, will still maintain their respective rates of diffusion, the more diffusive body travelling most rapidly and showing itself first and most largely in the upper strata of superincumbent liquid. Hence, what in the case of a single body is mere diffusion, in the case of two or more bodies mixed together is a diffusive separation of them from each other. Such separation will be more or less complete in proportion to the difference between their respective diffusibilities.

Secondly. Between highly diffusive substances on the one hand, and feebly diffusive substances on the other, Mr. Graham has established some important grounds of distinction. The only one, however, which concerns us at present is this,—viz., that the former affect the crystalline condition, while the latter are not crystallizable, and have, further, the peculiarity of becoming gelatinous when combined with water. Hence, highly diffusible substances he classes together as "crystalloids," and feebly diffusible ones as "colloids" (from *collin* or gelatine, the type of the class). Among the colloids are hydrated silicic acid, hydrated alumina, and other soluble metallic peroxides isomorphous with the latter body, together with gelatine, albumen, starch, dextrin and the gums, caramel, vegetable and animal extractive matters.

Now, it is characteristic of the bodies just mentioned that, while they are more or less permeable to crystalloids, they are wholly impermeable to other colloids like themselves which may be in solution. For instance, suppose a layer of firm jelly, or some other colloid of a more convenient nature (such as an animal membrane) to be interposed between water on the one side, and a mixed solution of common salt and albumen on the other, it will wholly intercept the albumen, but will allow the salt freely to diffuse through its substance into the water on the opposite side.

It is plain, therefore, that although, as was above shown, simple diffusion into water will partially separate mixed bodies from each other, a far more complete separation will be attained by causing the diffusion to take place into water, not directly, but through an intervening membrane, such as a bladder or sheet of parchment. And this is just what is done in Dialysis, which is nothing more than the diffusive separation of crystalloid from colloid bodies through a septum of gelatinous matter, the septum allowing the passage of the one, not of the other. The apparatus needed to conduct this process is the simplest possible. It consists of (1) a basin or deep dish containing three or four inches of pure water; (2) a "dialyser," which is merely some kind of membranous septum secured by a bit of string around a light hoop of sheet gutta-percha, so as to form a vessel like a tambourine. Of all the substances yet used for dialytic septa, the most convenient has been found to be the "parchment-paper" made and sold by Messrs. De la Rue and Co. Care must be taken that it is not porous. The mixed fluid to be dialysed is first poured into the hoop upon the surface of the parchment-paper to the depth of half an inch or so. The dialyser is then floated on the basin or dish of water, into which the crystalloid constituents of the mixture gradually diffuse, the colloid constituents remaining behind. Mr. Graham found that half a litre of urine, dialysed for twenty-four hours, gave its crystalloidal constituents to the external water. The latter on evaporation yielded a white saline mass, from which urea was extracted by alcohol in so pure a condition as to appear in crystalline tufts upon the evaporation of the alcohol. Professor Redwood observes that ordinary septa can only be used in dialysing aqueous solutions; a septum suitable for dialysing alcoholic or ethereal solutions not having yet been discovered. Some form of collodion, he suggests, may possibly answer the purpose.

The process of Dialysis admits of some very important practical applications, to which we will briefly allude. (1.) It

(a) "Graham on Liquid Diffusion applied to Analysis," *Royal Society's Transactions* for 1861, Part I. "Redwood on Dialysis," *Pharmaceutical Journal* for April, 1862. "Daubeny's Lectures on Agricultural Chemistry," *Gardeners' Chronicle* for December 7 and 14, 1861.

permits of the isolation of various chemical substances in a state of purity in which we were not previously aware of their being able to exist. For instance, chemists had hitherto never succeeded in obtaining a perfectly pure solution of Silica. The solution of it, obtained by treating silicate of soda with hydrochloric acid, was not pure; it always contained a certain quantity of hydrochloric acid and chloride of sodium which resisted all further attempts at separation. But by subjecting the said Silica solution to the process of dialysis, the acid and salt being crystalloids diffuse out, while the Silica being a colloid remains behind dissolved in water and perfectly pure. In like manner, Dialysis enables us to obtain solutions of peroxide of iron, alumina, and several other bodies, perfectly free from the salts or other chemical agents hitherto indispensable to their solution. (2.) In Medico-legal inquiries, it affords a most valuable means of separating arsenious acid and the various poisonous metallic salts from their organic solutions. For instance, let a portion of tissue suspected to contain arsenic be chopped into small pieces, soaked in pure water, and then thrown on the dialyser. At the end of twenty-four hours the arsenic, even if its quantity be infinitesimally small, will have diffused into the external water in a state fit for the immediate application of chemical tests. The poison is thus eliminated free from all organic impurity, and without employing any other agent than distilled water,—advantages which any one conversant with the usual processes for separating minute quantities of arsenic will not fail to appreciate. Vegetable poisons, such as strychnine, morphine, and the other poisonous alkaloids, may be separated from their organic solutions precisely in the same manner. (3.) Professor Redwood suggests its applicability to another purpose, viz., "the separation of the more active crystallizable constituents of vegetable substances from inert colloidal matter, and the production in this way of a new class of medicines, containing the more active principles of plants, partially purified, and in the state of combination in which they exist in nature." Such preparations would occupy an intermediate place between tinctures, decoctions, and extracts, on the one hand, and the pure active principles which they often contain (such as alkaloids), on the other. The advantages of vegetable remedies in this form would be greater uniformity of strength, certainty of action, and convenience of administration. They would also keep better, and being void of all inert matter they would be *purely* medicinal, which in their present crude state they are not. The difficulties in the way of their preparation would be great, but probably not insurmountable. (4.) It affords a partial explanation of certain points in the physiology of animals and plants hitherto involved in much obscurity. (We say "partial" explanation, because, in all the processes about to be mentioned, a *vital* as well as a *physical* force is at work. At any rate, their full phenomena take place only where life is present; they cannot be imitated outside living organisms.) Professor Redwood instances the processes of absorption and secretion accompanying the act of digestion. The mucous membrane of the stomach and intestines may be compared to a dialytic septum between the blood on the one side, and the blood-making constituents of food on the other. Dilute liquids taken into the stomach diffuse through, or (as we generally say) are absorbed by, its mucous membrane. The plastic constituents of food, on the other hand, being colloids, "are retained in the stomach, while the act of digestion proceeds under the influence of crystalloids that are dialysed into that organ, and then pass on to undergo new changes connected with absorption, assimilation, and excretion." He further observes that "the action of medicines must be considerably influenced by the state in which they exist as crystalloids or colloids. Thus, iron in the state of chloride, sulphate, or other crystalloidal salt, would be diffused through the walls of the stomach; but not so if in the state of a colloid, such as basic chloride or basic nitrate, in which state it would pass into the intestines, exerting its action probably through the entire length of the alimentary canal." When we know more of the comparative diffusive power of different medicinal preparations than we do at present, we shall probably prescribe them with greater success.

Lastly. Professor Daubeny, of Oxford, has shown, very clearly and fully, how and to what extent the principle of Dialysis explains certain phenomena of vegetation,—such as the transmission of sap through a plant, the separation of its various secretions from each other, and their maintenance in a state of isolation in appropriate receptacles. (1.) The sap is propelled upwards through the plant partly by capillarity, partly by atmospheric pressure, owing to the evaporation from the leaves and the partial vacuum thereby occasioned. But it makes its way *into* the plant, in the first instance, by endosmosis through the spongioles of the roots. (2.) The particular compounds secreted from the sap in different parts of the plant are maintained in their state of isolation and purity by the same principle of Dialysis. The peculiar juices of plants (starch, gum, oils, etc.) are generally colloids, and therefore have no tendency to pass through the walls of the cells in which they have been elaborated. The different acid and alkaline products, on the other hand, being crystalloids, permeate membrane freely, "but are only temporary constituents or steps in the series of changes which are intended to convert carbonic acid into sugar and starch, and they are consequently got rid of either by exosmosis or else by some chemical process by which they are converted into glucose or fruit sugar." The principle of Dialysis has likewise important bearings on the nature of the ultimate molecules of matter, and on certain geological phenomena. These, however, possess more interest to the Geologist and Physicist than the Physician.

MEDICAL EDUCATION AT CAMBRIDGE.

(From a Correspondent.)

The candidate for a degree in Medicine or Surgery must reside in the University nine terms; that is, the greater part of each of three years. The first of the three years must be spent in Classics, Mathematics, etc. Then he passes the previous examination in those subjects; and the last two years may be spent either in the further pursuit of Classics and Mathematics, with a view to obtaining a place in Classical and Mathematical triposes and a Fellowship in one of the Colleges; or, if he wishes to proceed quickly to a Professional degree, he may spend the two last years in the study of Medicine, Surgery, and the kindred sciences in Cambridge.

The accompanying "Summary" gives the shortest period in which Medical and Surgical degrees can be obtained, —viz., five years from entering at the University,—of which the last four must be spent in Professional study. Of these four, two would be spent in Cambridge, and two elsewhere. This is the minimum time; and to accomplish it in that time the student must pass in one of the honour triposes. He would probably select the Natural Sciences tripos, as the subjects for it are a part of Medical study (Chemistry, Botany, Comparative Anatomy).

A Summary of the Course which a Student (commencing at the University, say in October, 1862,) may follow.

He enters at any one of the Colleges, and pursues Classical and Mathematical studies till October, 1863.

Previous examination (in Classics and Mathematics), October, 1863. He then is registered as a Student of Medicine.

Medical study in the University (by attendance on lectures on Anatomy, Medicine, Surgery, Chemistry, Botany, etc., and the practice of Addenbrooke's Hospital) for two years from October, 1863.

Natural Sciences Tripos Examination (in Comparative Anatomy, Chemistry, and Botany), December, 1865. This admits to B.A. degree.

Medical study in London or elsewhere for two years.

First examination for M.B. and M.C. (in Human Anatomy and Physiology, Materia Medica, Pathology, Celsus and Aretæus), May, 1866.

Second examination for M.B. (in Physiology, Pathology, and Practice of Physic, Clinical Medicine, Medical Jurisprudence, the Medical treatment of Surgical and Obstetrical Diseases), November 1867.

Second examination for M.C. (in Surgical Anatomy, Pathology, and the Principles and Practice of Surgery, Clinical Surgery, Midwifery, Medical Jurisprudence), November, 1867.

Degree of M.B. or M.C., November, 1867.

The degree of M.D. may be taken three years after M.B.

Till the first examination the course for M.C. is the same as for M.B.; and the first examination is the same for the two. After that, the courses of study for the two degrees differ, and the examinations are different. Still the student may pursue the courses for both at the same time.

The two degrees give the right to practise every branch of the Profession in any part of the United Kingdom.

Cambridge affords very good opportunities for Medical and Surgical study during the first two years; in the Hospital, where clinical lectures are regularly given and a good deal of attention paid to clinical instruction; in the anatomical and pathological museums, dissecting-rooms, and lectures of the Professors in Anatomy, Chemistry (with practical work in laboratory), Botany, Materia Medica, Medicine. Indeed, I think the study may be commenced here more advantageously than in London, the opportunities for individual observation in the Hospital being greater, and there being closer communication between teachers and pupils.

The two last years of Medical study are spent in London or elsewhere; and it is much better that this should be so. I think it very desirable that Medical study should be in two Medical Schools,—that is, the first part in one School, the second part in another. The student thus sees greater variety of practice, is conversant with greater variety of opinion, is less one-idead than if he studied in one School only.

The expenses of living in Cambridge are much the same as in London; so far as I can judge and learn, the Medical student spends about as much in one place as in the other. Some of the University students are persons of property, and spend a good deal; but the greater number are careful and economical, and the Medical student usually belongs to this larger class. He enters at a College, lives in the College or in a lodging, dines in the College hall; and the cost of tuition, rooms, and board is by no means high. Indeed, the expenses of Cambridge have been usually overrated. Including College bills for tuition, rooms, commons, etc., grocer's, bookseller's, and other tradesmen's bills for personal expenses and entertainments, they may be very well covered by £150 a-year; that is, supposing the student to reside three terms and the long vacation, or about nine months, in the year. Many spend more than this, some less. The following is, I think, a fair estimate of the cost of obtaining Medical and Surgical degrees in Cambridge:—

All expenses of living, including tuition, books, examinations, etc., for five years, three in Cambridge, two in London	£750
Hospital (including dresserships) and Medical Lectures in Cambridge	25
Hospital and Medical Lectures in London	50
Admission to degree of Bachelor of Medicine	8
Admission to degree of M.D.	10
About	£850

The fee for admission to the degree of Master in Surgery is not yet fixed.

The real cause of the greater expense of the course for Medical and Surgical degrees, as compared with the course for the diplomas of the London Colleges, is the longer time required (five years being the minimum), and the higher standard of general education which is necessary. The "previous examination" with "additional subjects," which is the minimum required, being more difficult than the preliminary examinations of the London Colleges and Apothecaries' Hall. Hence students usually remain at school rather longer; few come to the University before they are seventeen. Then, many are induced by the sympathies of the place, or are wished by their friends, to pursue general education beyond the minimum expected, and take a degree in Arts *before* commencing the study of Medicine. This necessitates a longer residence in the University,—about a year longer.

A compensation for the expense entailed by the higher standard of general education is afforded in the prodigious number and value of the prizes with which proficiency in it is rewarded in the several Colleges. It is really true that a well-trained, industrious, and intelligent lad of seventeen may be pretty sure of obtaining Scholarships of the value of from £50 to £100 per annum; and this without interfering with his course for Professional degree. Then there are the valuable Fellowships for those who attain to a higher mark. The prizes here are not sufficiently known and appreciated, because they are not advertised. They are scarcely thought of by those intended for our Profession, or I am sure more of them would come here. To the intelligent, industrious student, Cambridge offers, I believe, the *cheapest* as well as one of the best roads into the Profession. The dull and imperfectly educated are baffled and dispirited by the examinations, and had better not come.

The advantages which the University offers are:—

1. The mental discipline conveyed by the precise definite mode of teaching followed here, especially in Mathematics and Classics, which is an admirable preparation for the study of Medicine or any other science.

2. The opportunity of associating with well-educated young men destined for the various walks and ranks of life.

3. The high rewards for diligent and successful prosecution of study.

4. Very good opportunities for the commencement of Medical study, which has to be continued in some other Medical School.

It will be perceived that these advantages apply chiefly to the better (the more industrious) class of those who are intended for the Medical Profession, whether as Physicians, Surgeons, or General Practitioners. To the mass of Medical students the University is not attractive; neither would it be, on the whole, advantageous.

It is hoped that the degree in Surgery, which has lately been initiated, will induce more of those who are intended for Surgeons and General Practitioners to come here than has hitherto been the case.

The prizes for proficiency in Medical study are few. A Scholarship for Anatomy and Physiology, and one for Chemistry annually in Caius College.

Four Tancred studentships, each £113 annually, tenable for six years, are given to students elected by the Masters of Caius and Christ's Colleges, President of College of Physicians, and three others. These are *not* given by examination.

There are usually students attending the Hospital and Medical Lectures who do not contemplate taking degrees in the University, but are preparing for the College of Surgeons and Apothecaries' Hall. Of these, some are apprenticed to the Surgeons in the town; some few are at a College. Their attendance at Cambridge saves them one or two years in London.

THE WEEK.

MEDICAL PERIODICALS OF THE DAY—THE "WESTMINSTER REVIEW," "TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF BOMBAY," "MACMILLAN'S MAGAZINE."

The article in the *Westminster Review*, entitled the "Dawn of Animal Life," which we simply mentioned in our last Number, consists in a review of the recent researches by Greene,

Claparede, Lachmann, Williamson, Carpenter, and Jukes into the structure and development of the protozoa, and the astounding part which these little and otherwise insignificant animals appear to have played, in periods of inconceivable remoteness, as the engineers to whom was intrusted the construction of much of the crust of the globe which we inhabit. And even in the present day they are still at work, forming, at a depth of 2000 fathoms, the bed of the ocean between Europe and North America, and by throwing up sand-banks, as they are termed, blocking up harbours, changing the course and depth of straits and channels, silently working out what may ultimately become a serious revolution in the apparent destiny of commercial emporia. Tracing the structure of these creatures from their most primitive form in the *Rhizopoda reticulata*, with its simple plastic body substance, or "sarcode," throwing out filaments, which it can again withdraw, and the shell bearing forms or foraminifera, "tens of thousands of which may be contained in a pill-box," while others, as the fossil nummulites, are two or three inches in diameter, through their several forms and orders,—the author passes to the consideration of that of the sponges. From this he passes on to the infusoria, the lowest animals provided with a mouth. Not only are these three groups of protozoa so connected by intermediate forms, as in structure and modes of reproduction insensibly to glide one into another, but it is pointed out that, among the foraminifera, so infinitely diversified are the individual forms that classification into distinct species is almost set at defiance, Dr. Williamson remarking that "examples abound which we are unable to locate with confidence, and we are at length tempted to believe that amongst the foraminifera specific distinctions have no existence. . . . Nearly every species is capable of adapting itself with endless modifications of form and structure to very different habitats, in brackish and in salt water, in the several zones of shallow and abyssal seas, and under every climate from the poles to the equator." And as these specific differences are so undefined among animals of this lowest type of animal life, so are naturalists still at loss to draw the line which shall mark off these from vegetable organisms—as much at a loss now, when research has been pushed so far on the confines of both kingdoms, as they were when rougher modes of investigation were alone had recourse to. An interesting illustration of the difficulty is met with in comparing the modes of reproduction of admitted animals and admitted vegetable growths. Thus, in the sponges not only is there met with reproduction by gemmation, but in the Spongilla reproductive seed-like bodies have been discovered, and in the Tethya true germ cells or ova and spermatozoa in every stage of development. On the other hand, in many cryptogamic plants, especially in the algæ, are there found zoospores or spermatozoids, which endowed with independent motion appear to perform an office identical with that of animal spermatozoa. In some algæ they thus enter a pistil-like organ, the sporangia, evidently for the purpose of fecundation. When, while swimming about, they approach the sporangia, they are said to make straight for it as though gifted with volition, and if they fail to enter it at once they repeat the effort. The general result of the inquiries of the naturalists mentioned, is not only to show the importance of the protozoa in the scheme of our mundane universe, but they bring out the interesting truth that there are animals constituted by an almost homogeneous gelatinous substance, in which this substance subserves all the purposes to which special structures are devoted in animals higher (as we term them) in the scale of organisation, but while "higher," far less numerous, and apparently far less stupendous as to the work which they accomplish. In these lowest animals the same gelatinous material subserves at once the functions of nutrition, circulation, respiration, and generation. "In the absence of muscular fibres all the protozoa possess the power of extension and contractility; and, notwithstanding the absence of nervous fibres, they clearly evince in their actions the existence of sensation and volition, and appear susceptible of sensitive impressions. With the naked infusoria the sense of touch exists, undoubtedly, over the whole body. But, besides this, it appears specially developed in many species in the long ciliæ, forming vibratile circles, or in those movable foot-like and snout-like prolongations of the body. In the same manner, it is probable that they have the sense of taste also; for they seem to exercise a choice in their food, although no gustatory organ has yet been found. All species, whether they have red pigment points or not, seem affected by light. Without doubt, therefore, their vision consists simply in discriminating light from darkness, which is accomplished by the general surface of the body, and without the aid of a special optical organ. . . . The way in which the Rhizopœda seize their prey certainly *seems* to indicate the presence of distinct volition; but it is probable that the phenomena observable are manifestations only of unconscious 'reflex action.'"

The *Transactions of the Medical and Physical Society of Bombay* for 1861, among other important papers contains one by Mr. Hanbury, Surgeon to the 33rd Foot, upon typhoid fever, a disease which Dr. Morehead asserts to be unknown in India. Six fatal cases of an affection, which Mr. Hanbury is disposed, although in the absence of rose spots, and although of rapid fatality, to regard as identical with typhoid, are related. The chief post-mortem appearances were in the lower third of the ilium, and the diseased action consisted in gangrene and sloughing, especially attacking the ilio-cœcal valve and adjoining mucous tissue. This was accompanied by blood degeneration, an aplastic deteriorated condition of the fluids indicated by the occurrence of hæmorrhage, melæna, and the absence of any attempt to repair the diseased structures. Symptoms, moreover, were not wanting to connect the disease with typhoid fever. It clearly had its origin in overcrowding conjoined with defective ventilation and sewerage.

The paper in *Macmillan's Magazine* upon "The Age of the Sun's Heat," by Professor Thomson, and also alluded to in our last, treats of the subject under three heads:—1. The secular cooling of the sun. Professor Thomson concludes, as the most tenable hypothesis as to the nature of that luminary, that it is at present merely an incandescent liquid mass cooling, and from considerations connected with his probable specific heat, that his temperature sinks 100° Cent., in some time from 700 years to 700,000 years. 2. The present mean temperature of the sun he regards as almost certainly as high as 14,000° Cent. He says, "At his surface the sun's temperature cannot, as we have many reasons for believing, be incomparably higher than temperatures attainable artificially in our terrestrial laboratories." Among other reasons it may be mentioned that the sun radiates heat from every square foot of his surface, at only about 7000 horse-power. Coal burning at "a rate of a little less than a pound for two seconds would generate the same amount." 3. The origin and total amount of the sun's heat. He subscribes to the view that the sun and his heat originated in a coalition of smaller bodies falling together by mutual gravitation, and generating, as they must do according to the great law demonstrated by Joule, an exact equivalent of heat for the motion lost in collision. He thinks we may accept as the lowest estimate for the sun's initial heat, 10,000,000 times a year's supply at present rate, but 50,000,000 or 100,000,000 as possible—and that it is most probable that the sun has not illuminated the earth for 100,000,000 years, and almost certain that he has not done so for 500,000,000 years. As for the future, he thinks we may say with equal certainty that the inhabitants of the earth cannot continue to enjoy the light and heat essential to their life for many million years longer, unless sources now unknown to us are prepared in the great storehouse of creation.

THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association is to hold its thirtieth annual meeting next week, in London. The entertainment to which the Londoners invite their country friends has, we must say, been most happily conceived. Besides the *pièces de résistance*, in the shape of an Address in Medicine by Dr. Walshe, one in Surgery by Professor Paget, and one in Physiology by Professor Sharpey, the intervals in the *carte* are filled by promised contributions from Sibson, Budd, Richardson, Handfield Jones, Lionel Beale, William Farr, Brown-Séquard, and a long list of other names which guarantee excellence. The Address of the new President, Dr. Burrows, is also an attractive feature in the programme. The College of Physicians, in opening its portals to receive the Association, has given another proof of the liberal and eclectic spirit which has of late years animated its Councils. There is a manifest congruity in the venerable parent of British Medical Science welcoming the sprightly bantling from the country and keeping open house on the occasion. Her younger sister in Lincoln's Inn-fields also offers her hospitality, and the Association will be entertained on successive nights in the temples dedicated to the genius of Hunter and Harvey. Private hospitality will do its utmost to return the warm welcome which the Londoners have received in successive years at almost every large provincial town. We have never abstained from commenting on the proceedings of the Association when we have thought that they were unwise or mistaken. The acts of such a body are undoubtedly fair subjects for public criticism. But we thoroughly recognise the truth that a Society capable of bringing about such a meeting as that which is to take place next week is a powerful engine for good. The opportunity and encouragement afforded to workers in science, the mutual interchange of ideas between a large number of men all following the same pursuit and all eager to give and receive, and the geniality and good-fellowship, the rubbing off prejudices and ripening friendships, are all benefits of no small worth. We heartily wish that the approaching meeting of the Association may be the most useful, the most pleasant, and in every respect the most successful of any of the scientific reunions which have been attracted to London by the World's Fair of 1862.

HEAT AND DIARRHŒA.

During last week seventy-seven deaths were registered in London as having occurred from various forms of bowel complaint, and of these sixty-seven were children. We will add another fact, which we assume without fear of contradiction,—the sixty-seven victims were children of the lower orders. All of these deaths come under the head of "preventible." Let us see if we can form a fair conception of the details. Some few were children of single women put out to nurse, and their death now is not a matter of much consequence: they were meant to die, and sure to die somewhere; bronchitis is the winter mode, diarrhœa, the summer; we will let them pass. A few more died of sour food, kept or prepared in uncleanly basins or pap-boats. A few more of what our Yankee friends call *swill milk*; milk robbed of its most nutritious and digestible portion, the cream, then diluted and coloured. But besides this there is another matter which we shall probably have to bring before our readers ere long, the preparation of milk, whether by heat or not, in such a way as to make it *keep*. Certainly some such milk will not curdle rennet; whether it will be more amenable to the digestive power of a sickly infant is doubtful. A minor cause of diarrhœa is the exposure of a heated and perspiring skin—especially if unused to the contact of cold water and soap—to draughts of cold air. But more than all put together, is the influence of close, foul air. Close air alone will cause diarrhœa in children. All our houses want more air, especially at night; and it is easy in going along the streets to see where people of sense live, by noticing where the fan-lights over the front doors are made to open. For sources of foul air, look to the dustbins, full of fermenting cabbage leaves, the dirty water-closets, and untrapped sinks within houses, which *are* drained by pipes, and the gaping street gullies, and ventilating holes that send up their poisonous whiffs to the passers-by. As for the houses with old rotten brick drains, that still exist by the hundred, they want no notice. But it will be said, we leave out all mention of *fruit*; we do not believe that good fruit ever caused diarrhœa. The water should come in for a word, and we may express a hope that the organic matter which the rains of June and July brought down from the cultivated fields in the valley of the Thames, is not now fermenting in uncleaned cisterns.

THE MURDER AT CHATHAM.

A most horrible and inexplicable crime was committed last week at Chatham. A poor little boy left his mother on Wednesday afternoon, July 23, to go and play on the lines. He was followed by a man named Burton, who knocked him down, dragged him a short distance, cut his throat, and then, because "he did not die quick enough," knelt on him, and pressed both hands tightly round his throat until the blood flowed from his eyes and nose, and he was dead. The reason the murderer assigned for his act was weariness of life, and a determination to kill somebody that he might be hung. He, however, at first seems to have wished concealment, for he washed the blood from his person and hid the knife; but on Thursday he voluntarily gave himself up to the police, and made the confession of which the above is the substance. The truth of this statement is substantiated by the condition of his clothes—stained with blood—and by the discovery of the knife in the place where he said he had hid it. On what psychical or pathological principle is such an act to be explained? To say the man is mad is an easy way of getting out of the difficulty. But is it the right one? Is the adoption of such an hypothesis consistent with public safety? Is the commission of a great crime a fact which is to be held sufficient to prove madness? Can a man's wish to get rid of his own life, and his nursing a diabolical purpose until it masters every better feeling, be held valid ground for claiming irresponsibility? These are questions which it is impossible to answer in the affirmative on general scientific grounds. A careful examination of the attendant circumstances *may* warrant such a solution. But to apply to all such cases the aphorism, "*Quem Deus vult perdere prius dementat*," is neither compatible with reason, science, or sound ethics.

POISONING BY STRYCHNINE.

Two charges of poisoning by strychnine have been proved within the past week. A man named Burke, who was clerk to the Poor-law Union of Waterford, has been convicted of poisoning his wife. It seems that he had obtained the strychnine, together with some Epsom salts and magnesia, in the Workhouse Surgery, to which he had access. He mixed them together, and sent the powder to his wife, wrapped in a paper which was labelled in the prisoner's handwriting, "Dose of salts and magnesia; to be dissolved in water and taken at bedtime." The analysis was conducted by Dr. Blyth, Professor of Chemistry in Queen's College, Cork. He found a grain of strychnia in the contents of the stomach, and a quantity amounting to 12 per cent. in the residue of the powder. The symptoms produced were those of poisoning by strychnine, and it was proved by Dr. Fitzpatrick, the Physician to the Workhouse, that in the beginning of March the prisoner had a conversation with him about poisons, in

which he was informed of the nature and properties of strychnine, and that half a grain would be a fatal dose. The most extraordinary part of the case is that the jury recommended the prisoner to mercy an account of his previous good character. The other was the case of a servant-girl, aged 13, who was tried at Lincoln on the 28th for poisoning an infant with "Battle's vermin-killer." She told the child's grandfather that she had given it poison, but she did not think it would kill it so soon. She had given it because she was tired of "lugging" the child about. Professor Taylor, who conducted the analysis, said that he had found a minute portion of a grain of strychnine in the stomach. The jury returned a verdict of manslaughter, apparently on the ground of the prisoner's age.

THE ALLEGED POISONINGS.

Among the alleged victims of Constance Wilson *alias* Catherine Taylor, was a woman named Emma Soames, who died in October, 1856. The cause of this woman's death is now undergoing examination, and part of the evidence in the case has already been taken at the Lambeth Police-court. The deceased was attended by Mr. G. F. Whidborne, of 61, Guildford-street, Russell-square, who stated that she had been in very good health up to the time of her last illness, that he was called to her on October 12, 1856, that he found her suffering from very severe cramp, pains in the bowels, violent retching, and great restlessness. That the alleged cause of the attack was some pork pie, which had been given by the prisoner on the previous night. He was shown some of the pie by the prisoner—it appeared very good. The prisoner acted as nurse. Mrs. Soames died between three and four o'clock on Saturday morning. Mr. Whidborne stated that he refused to give a certificate of death without a post-mortem examination. An inquest was held and an examination of the body made. The following is the substance of Mr. Whidborne's recollection of the post-mortem appearances:—

"He found considerable inflammation of the peritoneum. The smaller intestines were also very much inflamed. He remembered that the heart was particularly large, but empty. He did not recollect whether in the stomach they found anything that particularly drew their attention. They examined the liver and the bladder, but there was nothing particular about either. To the best of his recollection the stomach was taken away by his pupil, but nothing was done to analyse it; for Medical men generally are not competent to undertake inquiries of that kind. His impression was that the deceased died of inflammation of the peritoneum and bowels. That inflammation might have been produced by eating something she should not have eaten, but he could not suppose that a piece of pork pie would produce such effects. He had no suspicion that she had taken anything wilfully. The inflammation was very severe, and he could not in any way account for it. The appearances which presented themselves were consistent with death from poison, as were also the symptoms before death, and those appearances might have been caused either by a vegetable or a mineral poison."

It appears that there was no analysis made of the contents of the stomach; or, at all events, if an analysis were made, that its result was not given at the inquest. Mr. Whidborne said that the contents of the stomach were taken to University College by his pupil, but he never heard the result of their examination. It appears, to say the least, most extraordinary that the most important part of the evidence which could throw light upon such a suspicious case was thus dispensed with. At this distance of time it would be wrong to impute blame to any one, but surely it was the Coroner's duty to have insisted upon a chemical examination of the contents of the stomach. We cannot conceive an educated Medical Coroner sanctioning such an omission. We are informed that the body has been exhumed, and that the liver and some of the other organs are now in the hands of Professor Taylor. Considering that six years have elapsed since death, we hear that some of the organs were found in a remarkable state of preservation, a condition which, to a certain extent, supports the theory of poisoning by arsenic.

DEATH FROM STARVATION.

The Medical details of the case of starvation which has lately been investigated at Hackney, do not form its most striking feature. Few would believe in the possibility of such an occurrence brought about under such circumstances. A widow lady is robbed of a little property left her by her husband; she has two sons, one healthy and capable of working, but not only does he not support his mother, but brutally deprives her of the little she has,—the other, sick and incapable of exertion, occupies the same room with his mother. The poor woman is starved to death, and the sick son, emaciated and weak, totters into Court to give evidence as to his mother's death.

"For a long time past they had been suffering great privation, living on bread alone, and witness and the deceased had been confined to bed from illness and exhaustion. On the Friday morning before the deceased's death they ate a little dry bread, and from that time until her death on Sunday they had no food whatever. On the Saturday evening the deceased became delirious, and continued raving from hunger the whole night. He crawled down stairs on his hands and knees, and having found a few grains of coffee, he made a drink and gave it to her. The next morning he noticed that she had ceased to talk, and upon going in to give her another drink he found her dead. He then wrote a note to a friend, but did not know how to convey it. After some hours, however, he crawled down to the door, and gave it to some one to deliver. He since learned that his brother William had, on the Tuesday before deceased's death, received from a friend a sovereign for the family, but he had not given any of it to them. On the contrary, he had come to the house on that day and ransacked it for everything of any value, and took away anything worth having, even to witness's dressing-gown and a looking-glass. He came on Friday and gave them a little bread to eat, and they saw him no more. Witness and deceased remained awake the whole of that night, expecting his return with dreadful anxiety, and on Saturday night they gave up all hope, and deceased became delirious. William had frequently come to the house previously to remove things, and he would not permit any person to call at the house. He used to abuse witness and his mother brutally, and refused to get witness removed to an Hospital."

The practice of our Profession introduces us to many scenes of crime and want, and without becoming really callous, Doctors get a habit of looking at sickness and death coolly. But in this case the cruelty of the son, the absence of any attempt to obtain assistance on the part of the sick, starving creatures, and their entire desertion by friends and neighbours, are incidents rarely paralleled even in the experience of a Poor-law Surgeon.

NOTICES OF THE

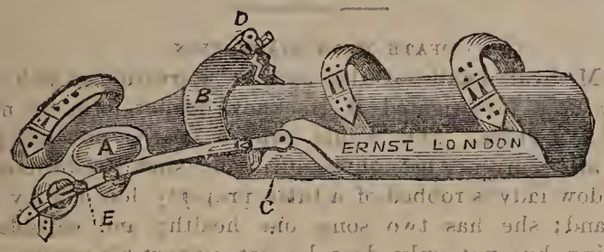
SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

In accordance with my declaration of last week, I continue to refer to some more of the orthopædic instruments exhibited by Mr. Ernst. Fig. 1 illustrates the apparatus for lateral extension of the wrist, constructed on the principle originated by Mr. Hancock. It consists of a light steel trough for the forearm and hand, with a cavity cut out for the reception of the ball of the thumb; the whole instrument being well padded. The cavity to which I have alluded is, however, filled up by a padded spring plate (A), self-adjusting and attached to a double-action rack and pinion spring lever (C), in order that the extension bearing on the ball of the thumb should not be too forcible. Almost opposite this double-action rack

movement on the other side of the wrist-joint, is a single-action rack lever (B) with a spring plate well padded, which

FIG. 1.



in conjunction with its ally causes lateral extension of the wrist and ball of the thumb. By the ratchet (E) an additional amount of extension is brought to bear on the distal end of the thumb. This contrivance is very ingenious, and, like all the specimens in Mr. Ernst's case, is of excellent manufacture.

Dr. Little's apparatus for cases of contracted knee-joint, in which there is only partial motion, and but slight capability of extension, is also exhibited by Mr. Ernst. The instrument (Fig. 2) consists of light bars on either side of, and above and below the knee, furnished with partial stop-joints, and connected at either extremity by well padded steel plates for the thigh and calf; a firm garter-piece preventing them from collapsing at the knee. Spiral steel springs acting on rollers and fastened above and below the articulation, exercise a constant influence in straightening the limb.

FIG. 2.

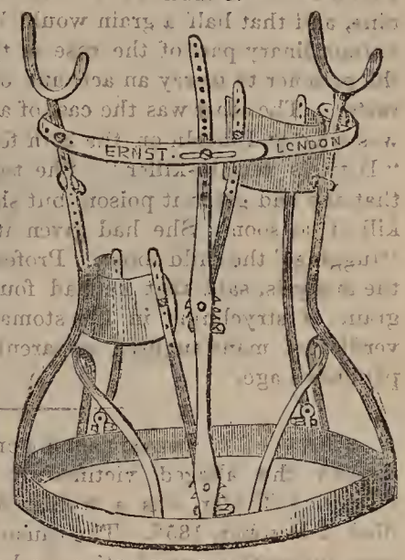
Mr. Ernst also exhibits a small model of his "portable gymnasium," by means of which twenty-seven different exercises can be performed, and therefore nearly all the muscles of the body called into play. My space will not allow me to enter fully into a minute description of the capabilities of this apparatus, so I will refer those of my readers who may be interested in the matter to a small book published by the maker, in which he mentions in a detailed though concise manner, the different evolutions which can be performed by the aid of his gymnasium. I may, however, mention generally, that it is adapted for expansion of the chest, for extension of the arms in various directions, for a combination of abduction or adduction with extension of the arms, and, indeed, for almost every possible movement of which the upper extremities are capable. It is also provided with contrivances which are destined to produce certain movements of the head and neck,—namely, flexion and extension, lateral motion, and rotation. As I before said, I can but glance at this piece of mechanism; it is clever, I should consider it to be of practical use, and that it would form a very important addition to the ordinary gymnasium.

In Mr. Ernst's case is also to be seen a model of Dr. Little's exercising apparatus for inverted knees, which produces the same results as ordinary manipulation. It consists of a mahogany board, long enough for a patient to sit on with the lower extremities extended. The internal condyles of the femur rest against firm plates well padded and screwed to the board, while the legs and feet rest in troughs which are also padded, and jointed just below the knee. A cord passes from each foot over a roller; the two are then united, and finally attached to a lever placed between the thighs. By working the handle of this lever the patient can exercise the legs without the aid of an attendant.

A model of Mr. Tamplin's apparatus for the treatment of double lateral curvature of the spine is also exhibited by Mr. Ernst. It consists of a pelvic band and hip-pieces, a posterior lever furnished with a triple-action rack movement, and a pair of sliding side supports. Attached to the two portions of the posterior lever are self-adjusting plates which act, one against the lumbar, and the other against the dorsal curve; affording at the same time some amount of posterior pressure by means of springs placed at the hinges.

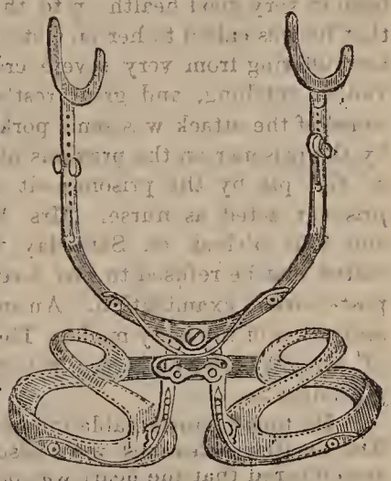
Fig. 3 represents Mr. Brodhurst's apparatus for the treatment of spinal curvature. It consists of the usual pelvic band and hip-pieces, a slide in front, and a pair of sliding side supports. The posterior lever is furnished with a double-action rack, and there are rack levers on both sides in front. These are connected to the posterior levers by self-adjusting dorsal and lumbar webbing straps, which, when moved by the rack, press on the prominent portions of the curves. The chief posterior lever is connected with the side supports by a sliding cross-bar.

FIG. 3.



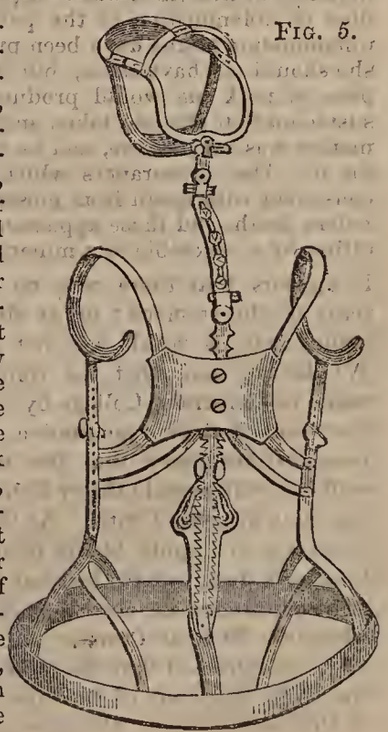
Mr. Ernst's spinal support is shown in Fig 4. It allows voluntary lateral movements to take place, and yet, after following the inclinations of the body, exerts a constant tendency to cause it to revert to the perpendicular position. It also admits of readjustment, on either side, of the pelvic band, which has an upward movement to accommodate it to extensive motion of the lower extremities, as in mounting a horse, etc. It consists of a right and left pelvic band and hip-pieces, attached to a short horse-shoe shaped connecting bar by means of screws, so as to afford the possibility of partial movement: two springs attached to this bar play on rollers connected with the pelvic band, and always keep the latter properly adjusted to the pelvis. From the centre of the horse-shoe bar a much larger one of similar shape springs, the two branches of which extend upwards and outwards to the axillæ, and can be elongated at pleasure: the equilibrium of this larger curve is maintained by cross-springs which act on rollers and are fastened to the lower bar.

FIG. 4.



An apparatus for the treatment of slight angular curvature of the spine, accompanied by round shoulders, and also for cervical deflection and wry-neck, is represented in Fig. 5. It consists, in common with all similar apparatus, of the usual pelvic band, hip-pieces, and anterior slide: the posterior ratchet-catch lever is furnished with an index that affords the Surgeon a ready means of ascertaining the amount of extension of the spine and support of the head. By the various rack and pinion movements, viz., lateral, posterior, and rotatory, which are placed at the top of the posterior lever (to the upper extremity of which a head-piece is attached, that reaches to the temples and behind the ears, and is furnished with chin and forehead straps), the

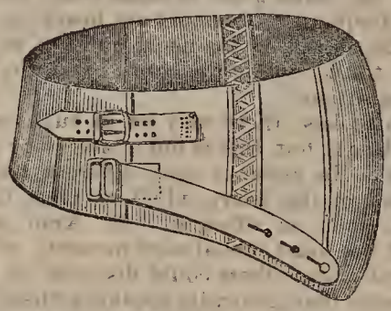
FIG. 5.



head is gently and efficiently carried and guided without rude force or pressure.

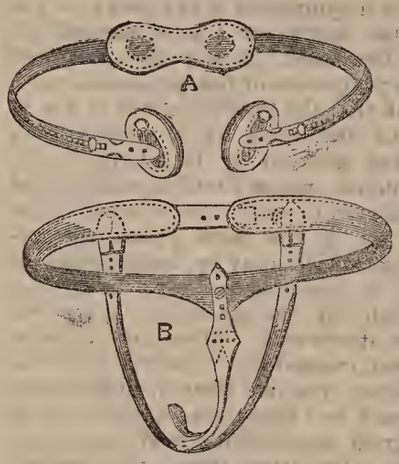
Fig. 6 is Mr. Ernst's abdominal belt, which is adapted for use during pregnancy, after accouchement, and for ordinary cases of general abdominal relaxation, or slight umbilical hernia.

Fig. 6.



The lower illustration in Fig. 7 is a truss for the treatment of prolapsus ani, which is furnished with double lever springs, and differently shaped ivory pads.

Fig. 7.



Dr. Arnott's truss for double inguinal hernia is shown in the upper illustration in Fig. 7. It consists of flat steel springs, furnished with an arrangement which allows their power to be regulated at will. The anterior pads are supplied with a ball and socket adjustment, by means of which they can be fixed at any angle, and two well padded hinged plates at the back, which also allow of extension, complete the instrument.

I cannot occupy more space in treating of the well-constructed instruments contained in Mr. Ernst's case, and will conclude my notice of this week, by recommending those of my readers who may visit the Exhibition to examine for themselves the artificial limbs which Mr. Ernst exhibits, in addition to those appliances which I have already described.

47, Hans-place, S.W.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

CASE OF POISONING WITH LIQUID AMMONIA.

By M. POTAIN.

A man, aged 44, drank off more than twenty-five drachms of the liquid ammonia of commerce, and was immediately seized with a paroxysm of suffocation, great pain in the epigastrium, and extreme prostration. He lived ten days, and then was carried off during the prevalence of erysipelas. His chief symptoms were difficulty of deglutition, pain at the epigastrium, with bloody vomiting and purging. At the autopsy, the only changes observed in the air-passages were redness and tumefaction of the arytenoid-epiglottean folds, and of the upper surface of the epiglottis. The pharynx was of a bright red, and the œsophagus was deeply ulcerated over a large portion of its course. A round ulceration, about three centimètres in diameter, existed a little in front of the cardiac orifice of the stomach, the mucous membrane of the rest of the organ exhibiting no notable alteration. The duodenum, and the first portion of the jejunum were thickened in substance, but not ulcerated, the mucous membrane being a little softened, and the valvulæ conniventes tumefied. The remainder of the intestinal canal exhibited nothing abnormal except great thinness and translucidity of its walls. The right kidney was much enlarged and softened, its tubuli being either empty or filled with fine granular matter mingled with fatty droplets.

M. Potain observes that he is not aware of above four cases being on record in which the symptoms have been evidently due to the penetration of the ammonia into the digestive passages, death usually following rapidly from suffocation. Hæmorrhage, which was a prominent feature in these and in the present case, is of rare occurrence in poisoning, even by more caustic substances, as sulphuric, muriatic, or nitric acid; and, in fact, those substances which especially give rise to hæmorrhage, as nitre, oxalic acid, mercury, and even arsenious acid, are more remarkable for their fluidifying than for their caustic action. There is no substance which more markedly exerts this liquifying action than ammonia; and, in the present case, the blood was found in a very dissolved state. M. Potain believes that the lesion of the kidney was due to the action of the ammonia during its elimination. —*Union Médicale*, No. 8.

EXCERPTA MINORA.

Carbonic Acid Gas as an Anæsthetic.—M. Ozanam, in 1856, stated his belief that of all the anæsthetics most apt to produce a sufficient insensibility without any danger, the mixture of carbonic acid and atmospheric air constituted the best. In his present communication he relates a case of deep-seated abscess of the thigh, calling for elaborate operation, in which he employed a mixture of three parts carbonic acid, and one part air, the apparatus employed not, however, completely closing the mouth and nostrils, so that some additional air could also be inspired. Insensibility occurred in about two minutes, the respiratory action having become accelerated, while the face was covered with sweat. The loss of consciousness continued complete as long as the inhalation was continued, the patient immediately recovering his senses on the removal of the tube.—*Comptes-Rendus*, No. 21.

Ergot of Wheat.—As the result of his trials, made in continuation of those of other Practitioners, M. Perrot comes to the conclusion that the ergot of wheat is less liable to undergo alteration, is more efficacious, and less poisonous than the ergot of rye.—*Gazette des Hôp.*, No. 68.

Internal Use of Chloroform in Pertussis.—M. Jacquart furnishes an account of some trials of chloroform given internally, which have been made in M. Roger's wards at the Hôpital des Enfants. It was administered in a mucilaginous drink in increasing quantities of from six to thirty drops per diem. Without the results which had been hoped for having been entirely obtained, still in a certain number of the cases so treated there was found to be a diminution in the number of paroxysms, while in a smaller number there was also a diminution in their violence also. In some cases, too, the violence of the paroxysms was diminished while their number remained the same.—*Gazette Méd.*, No. 13.

Employment of Colchicina.—Dr. Percy states that in a few cases of gout he has used colchicina, or the active principle of colchicum, with advantage, and he thinks it preferable to the crude preparations of the plant, because its composition is definite, while it does not deteriorate by keeping. Every one knows the uncertainty of the ordinary preparations. That this active principle requires careful handling on account of its poisonous nature, is seen from the fact that Dr. Percy found from one-thirtieth to one-forty-fifth of a grain, not too frequently repeated, to be the safe doses.—*American Medical Times*, No. 16.

New Symptom of Scarlatina.—M. Bouchut mentioned to his class a diagnostic symptom which he had never found fail to enable him to distinguish scarlatina from any other exanthem, and the knowledge of which may prove of utility in doubtful cases. "It is the disappearance of the eruption for a minute or two under the influence of slight friction. If with the point of the finger or the nail we trace a line, this becomes and remains for a minute or two white amidst the surrounding redness of the skin. We can, so to say, write the diagnosis of the affection on the skin, as in the present case, in which the word 'scarlatina,' traced by a bit of wood, became in a few seconds designed in white letters, which remained quite distinctly visible for about two minutes. This is due to the exaggeration of the contractility of the capillaries induced by the friction temporarily expelling the blood from their interior. Nothing of the sort is observed in measles, erysipelas, or other cutaneous eruptions, in which the half-paralysed capillaries possess but little contractility. We can in these by pressure drive out the blood from the capillaries, and produce a white spot, but this is a purely mechanical action, and as soon as the pressure is removed the redness reappears."—*Gaz. des Hôp.*, No. 70.

Test for the Purity of Chloroform.—According to M. Hardy, when a fragment of sodium is cast into chloroform and remains unchanged, the chloroform is pure; but when the anæsthetic agent contains alcohol, or other substances capable of rendering it impure, a disengagement of gas ensues. In the great majority of cases this gas is a compound of hydrogen marsh-gas and oxide of carbon. The reaction takes place in the cold, and immediately.—*Journal de Chimie Med.*, June.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, July 25.

M. TROUSSEAU ON GRAVES'S DISEASE.

Some time, ago M. Hiffelsheim sent a paper to the Academy of Medicine "On Bronchocele Associated with Exophthalmus," and a Committee was appointed to make a report on it. The discussion of this report, which promises to be of considerable interest, commenced on Tuesday last, when M Piorry made a fierce onslaught on M. Trousseau, the Chairman of the Committee. I will first give you a short abstract of M. Trousseau's report, which, as everything emanating from this distinguished Physician, is remarkable for its lucidity and the critical acumen displayed in reviewing the several theories that have been put forward concerning the nature of the affection.

M. Trousseau says that the disease which is known as exophthalmic cachexia or bronchocele, or Basedow's disease, should properly be called Graves's disease, as it was Graves, of Dublin, who first described it in his lectures published in 1835, while Basedow's labours were only given to the world in 1840. In France it was especially Messrs. Charcot, Fischer, and Aran who directed the attention of the Medical Profession to the subject.

In its usual chronic form, the disease presents three principal symptoms,—viz., exophthalmus, hypertrophy of the thyroid body, and palpitations of the heart. Exophthalmus is generally of an extreme degree, and affects both eyes; in some cases it is not very striking, but the look of the patient imparts so singular a character to the physiognomy that the attention of the observer is at once directed to it. The eyeballs are in constant motion, and if the patient tries to look steadily at a certain object, this is accompanied with difficulty and even pain. The eyes sparkle and fill with tears. Any continued work is painful or impossible; but although in certain cases the eyes are only partially closed during sleep, there is scarcely ever any serious alteration of the conjunctiva and cornea. The second symptom is a tumour at the base of the neck, in the region of the thyroid body, and which chiefly occupies the lateral parts of the trachea. This tumour is smooth, and the colour of the skin unchanged. It is very similar to the bronchocele observed in pregnant women. The tumour is frequently more developed at the right side than at the left. If the hand be applied to the surface, palpitations which raise the whole of the tumour, and movements of expansion, as in an aneurismal sac, are perceptible. The stethoscope shows continuous murmurs, which become stronger during systole; thick veins and arteries are seen on the surface. It is shown by the seat, form, development, and progressive diminution of the tumour, as well as by post-mortem examinations in cases which have proved fatal, that this tumour is due to a general hypertrophy of the thyroid body.

Regarding diagnosis, the simultaneous existence of exophthalmus and bronchocele are of great importance. These two morbid conditions do not coexist in any other disease; moreover, they augment and diminish simultaneously in each paroxysm, as if they were subject to the same etiological influence. In cases, however, where a cure is in the course of completion or already accomplished, the eyeballs may be completely retracted into the orbit, but there may be traces left of the bronchocele; while in others the exophthalmus persists, but the thyroid body completely disappears.

The third symptom concerns the heart. All patients complain, at some stage of the disease, of palpitations of the heart, by which the walls of the thorax are violently elevated, the *bruit* being sometimes so loud that it may be heard at a distance. These palpitations are painful, and render all exertion impossible. If they increase, they spread to the arteries of the neck, the thyroid body, and the eyeballs. They are accompanied with headache, and at such times the patient's temper is very irascible and even violent. With every emotion or exertion the palpitations increase, the tumour becomes larger, the eyes brighter and more full of tears. At the same time the radial pulse remains small and feeble, but becomes more frequent. Murmurs are heard at the base of the heart and the vessels of the neck, but not in the arteries of the arm or thigh; while the carotid and thyroid arteries leap at every pulsation.

According to Stokes, there may be in such cases organic disease of the heart, but this is not a necessary consequence of the malady. He assumes two different varieties; one without affection of the heart, which is most frequent, and the other with such an affection. M. Aran asserted that hypertrophy of the heart was always present; while Messrs. Bouilland, Cazalis, and others could discover no such lesion. M. Trousseau says that, generally speaking, there is no hypertrophy, but that it may sometimes exist temporarily. Moreover, exophthalmic bronchocele does not exclude organic lesions of the heart from other causes, as has been well remarked by Stokes and Vithusen.

The succession of the several symptoms is as follows:—The patients first complain of the heart; at a later period, the tumour appears and slowly increases. It has often acquired considerable bulk before the protrusion of the eyes commences. M. Trousseau does not think that the exophthalmus is due to the disturbance of the venous circulation by the hypertrophy of the thyroid body, as was asserted by Dr. Taylor; for sometimes both these symptoms appear simultaneously, and in other cases exophthalmus even precedes the enlargement of the thryoid body. If one out of the three principal symptoms mentioned is wanting, which may be bronchocele or exophthalmus, the disease is nevertheless quite the same, which is placed beyond doubt by the secondary symptoms which appear a short time afterwards. These latter consist of disturbances of the intellect, incapability of mental exertion, a modification of the character, irascible temper, disturbance of the function of the stomach and intestines, as well as of the nutrition altogether, great emaciation, nervous cough, and sometimes fever with an intermittent type. Suppression of the catamenia is another important symptom; at first this function becomes irregular, but it is soon entirely suppressed, and at the time when the period should have appeared, all symptoms are aggravated. Re-establishment of this function is the first indication of a cure. If the patients become pregnant, great improvement results, but after parturition the diaease generally returns to its former severity.

There are two forms of this malady; one is acute with frequent paroxysms, and lasting from several months to two years; the other form is chronic, and extends over a number of years. This latter is, however, rare, and its symptoms are comparatively mild, although paroxysms are not quite absent.

Graves's disease is not a cachexy, such as chlorosis or albuminuria. If anæmia coexists with it, it is only consecutive to the disturbance of nutrition; albuminuria, on the other hand, is a very rare symptom of exophthalmic bronchocele. M. Trousseau believes the disease to be a neurosis, somewhat analogous to hysteria, characterised by local congestions, and having its origin in a modification of the vaso-motor system, *i.e.*, the sympathetic nerve. This opinion is supported by the experiments of Claude Bernard, who has shown that the section or excitation of this nerve causes not only congestion with elevation of the temperature of those parts of the body which are animated by the irritated portion of the nerve, but that there is at the same time dilatation of the pupils and protrusion of the eyeballs. The palpitations of the heart, and the congestion of the thyroid body and the eyes, are a direct consequence of this, and the diarrhœa, the increased flow of urine, and the profuse perspiration are due to a congestion of the glandular apparatus. The disturbance of menstruation is caused by a deficiency of blood in the utero-ovarian system, and if this returns to its normal physiological condition, either by pregnancy or by menstruation, most of the symptoms of Graves's disease disappear, as if the return of uterine hyperæmia caused the morbid congestions of other organs to cease.

M. Aran believed that the staring eye was due to the exaggerated contraction of a muscle first described by M. Heinrich Müller, and the existence of which has been

affirmed by Claude Bernard. This muscle is analogous by its position and function to the orbital membrane in certain mammalia, especially in the hare. The orbital muscle, according to M. Müller, protracts the eyeball, and has therefore an action opposed to that of the recti and of the orbicularis; and it receives its nervous supply exclusively from the sympathetic. M. Trousseau, however, is disinclined to endorse this theory of Aran's, and believes that a congestion of the eye, analogous to the congestion of the thyroid body, is the true cause of the staring.

As regards the treatment, the different preparations of iron and other tonics have proved quite useless; they have sometimes even increased the palpitations of the heart, so that it was necessary to discontinue them. Iodine, which had been given for diminishing the bronchocele, aggravates every symptom, and gives rise to paroxysms. On the other hand, digitalis has proved highly beneficial in calming the irritability of the heart, diminishing the size of the thyroid body and the protrusion of the eyeballs, as well as in improving all the secondary symptoms of the disease. At the same time we should endeavour to re-establish menstruation. Special remedies for the secondary symptoms are unnecessary, as these generally disappear if the principal symptoms are relieved. M. Aran has found the application of ice to the heart and the thyroid body of great service; but M. Trousseau thinks that, on the whole, hydropathy, methodically practised, is the best remedy for the disease under consideration.

GENERAL CORRESPONDENCE.

SUBCUTANEOUS INJECTION OF QUININE.

LETTER FROM DR JAMES M'CRAITH.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have to report a discovery, or what is tantamount thereto, of very great importance in my estimation, made by my friend and *confrère* here, Dr. Chasseaud, who is Physician to the Hôpital de St. Antonio, of this city. I am Surgeon to the operatives engaged on the Smyrna and Aidin Railroad, in course of construction at present here. This railroad passes through parts of this country as rife in malaria as the Pontin Marshes themselves. The number of the workmen attacked by intermittent fever, often of severest type, is very great; which you will allow when I state that at present from forty to sixty are in Hospital suffering from intermittent fever. These are naturally the worst cases, many of them treated ineffectually on the works, and sent to Smyrna as such for Hospital treatment. Seeing the immense expense of sulph. quinine, the frequent difficulty and occasional danger of the large doses necessary in this climate, Dr. Chasseaud cast about, as many others have done before, to find some means of obviating those difficulties. He began a series of subcutaneous injections, and was most grateful to find his success complete. The effect of one or two grains of quinine in solution, injected into the cellular tissue of the arm, being equally efficient in arresting fever, if not more efficient than the scruple doses hitherto found necessary. This method is also free from the inconveniency of the large dose taken by the mouth—vomiting, diarrhœa, and gastric symptoms often rendering the exhibition of large doses by the stomach ineffectual, difficult and hazardous.

Now, a substitute for quinine has been sought for ineffectually ever since the discovery of this most valuable and now necessary or indispensable specific. Now, if Dr. Chasseaud's application of it prove satisfactory, (and from what I have seen it cannot fail to do so,) such application is tantamount to finding a substitute. He makes two grains equally or more effectual than twenty grains, the which twenty grains had often to be repeated. The importance of this I need not insist upon. His method is the following,—it can be put in practice by any one, the merest tyro in Medicine:—He makes a saturated solution of quinine in alcohol, (he has tried with success the solution of the sulphate, also the citrate, and bisulph. in distilled water, but prefers the alcoholic solution of quina,) and of this solution he injects as much as is equivalent to two grains under the skin of the arm, avoiding the large veins. He makes a puncture with a spear-shaped lancet, pinching up for that purpose the skin over the triceps on the arm, and with a syringe injects under the skin the solution as described above. Any syringe with a small pointed nozzle will answer the purpose.

He applies a small compress and light bandage to prevent the escape of the injected fluid. Now fifty cases, many of severe form, have been treated in this manner, and with more satisfactory results than by the old and recognised method. Dr. Chasseaud is preparing a detailed report of these cases, many of very severe form, which he will not delay to lay before the Profession. One curious effect I may mention, and which would not be anticipated, is that generally after the injection the patients fall into a quiet sleep of some hours.

Now, if this application of quinine prove of that importance which I believe it to possess, Dr. Chasseaud will have a right to a reward from all the civilised governments of the world, seeing the immense economy of quinine it will effect in all Hospitals, civil and military, all over the world. To the poor of malaria countries his discovery will be a boon beyond all price.

I am, &c.

JAMES M'CRAITH, M.D.
Surgeon to the British Seamen's Hospital, Smyrna.
Smyrna, July 15.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the Preliminary Examination in the subjects of General Education on July 26:—

Charles Bracebridge Allen, 35, Dartmouth-street, Westminster; David Sharp, 13, Loudoun-road, St. John's-wood; Edgar William Beckingsale, Newport, Isle of Wight; Thomas Richardson Loy, Havering, near Romford; Frederick Royston Fairbank, Rugby; Henry Reginald Hatherly, Westminster Hospital; Godfrey Bingley Wadsworth, University College.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen have passed their First Professional Examinations during the July sittings of the Examiners:—

Smith Houston Davson, Demerara; Samuel J. Dunn, County Tyrone; William J. Kennedy, Londonderry; George R. Lloyd, County Tipperary; Charles J. Welsh, Northampton; (James Hunter, Ayrshire, passed his first professional examination in April).

The following gentlemen have passed their Final Examinations, and been admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh:—

Frederick John Austin, Limerick; James Watt Black, Banffshire.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a Meeting of the Court of Examiners on the 29th ult., viz:—

Thomas Pickering Pick, Waterloo, near Liverpool; William Rayner, Uxbridge; William Dunnett Spanton, L.S.A., Loughborough; James Hudson Taylor, Barnsley; George Manhey, Shepherd's Bush; Robert Samuel Macpherson, Birmingham; John Heaps, Beeston Hill, near Leeds; Robert William Coles, Staleybridge, Cheshire; Thomas Gambier, L.S.A., Canterbury; John Prince, Calcutta; Robert Turner Land, M.D. Edin., Leeds; Thomas Henry Hughes, M.D. Edin., Wrexham; Francis Trimmer, Gloucester; Samuel Smith Crosland Richards, Bedford-square; Martin Annesley Lamb, Porchester-terrace; Theodore Kelsall Hubert, L.S.A., Markyale-street, Beds.; Frederick William Wright, Launceston; Thomas William Wasdale Watson, Edmonton; Henry Lyell, Southwark; and William John Ready, Dublin.

Admitted on the 30th ult:—

Messrs. William Lugar Mumford, Cosnard Parva, Suffolk; Horace Newhegin Watts, L.S.A., Norwich; Richard Fennelly, Kilkenny; Thomas William King, Camberwell; Charles Orton, March, Cambridgeshire; Peter Proctor, L.S.A., Leeds; James Charles Broadbent, Liverpool; William Richard Grove, L.S.A., Huntingdon; Ralph Eddowes, Shrewsbury; Henry Edward Jessop, Cheltenham; John Norman Davis, Galway; Reginald Rabette Dudley, Whitchurch, Hants; John Pratt, Sunderland; George Annesley Derville Mahon, L.S.A., Aspley Woburn; Abney Charles Hopton, Judd-street, Brunswick-square; Samuel Mason, Lewisham-road; Charles Richards, Almer, Blandford; Francis King, Stratton, Cornwall; William Lewis Evans, Rhayader, Radnorshire; and Henry Charles Woods, Godalming.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen have passed their First Professional Examinations during the July sittings of the Examiners:—

Alexander Allison, Strathaven; John Buckley, Cork; A. Montgomerie Bell, Edinburgh; Lewis Cameron, Morayshire; Robert M'K. Duncan, Dumfries; William Erskine, Fifeshire; James Godfrey, Glasgow; Alexander Goodall, Fifeshire; H. Fred. Harden, Weymouth; David Erskine Hughes, Edinburgh; James G. Lyon, Forfar; Frederick Montizambert, Quebec; John W. Maxham, Quebec; N. G. Mercer, Argyllshire; James R. M'Alman, New Brunswick; Roderick M'Laren, Dumfries;

Robert Thin, Kilconquhar; Andrew Veitch, Edinburgh; Robert Wright, Edinburgh.

The following gentlemen have passed their Final Examinations, and obtained the Diploma of the College:—

John Daly Ambrose, County Limerick; Patrick Macdonald Allan, Arbroath; Alexander Brebner, Aboyne; Michael Breen, County Clare; John Duncan, Edinburgh; William Oxendale Dawson, Preston; Daniel Donovan, Skibbereen; James Dewar, Edinburgh; Frederick Heisch Dunbar, Cork; George Jonathan Hearder, Plymouth; James Sommerville Hope, Tasmania; Patrick Cruikshank Houston, Morayshire; James Robertson MacIver, Rosshire; Robert Macnair, Paisley; Arthur Grant Reid, Fochabers; William George Ross, Bury St. Edmunds; John Gordon Smith, Kircudbrightshire; James Smith, Dumfriesshire; John Todd, Tyrone; William Thomson, Ballynahinch; Richard Sobey Veale, Cornwall; John Thomson Welsh, Edinburgh.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 24, 1862:—

John Alexander Hedges, Adelaide-place, Bedford; Richard Meredith, Netherton, Worcestershire; Henry Frederick Hodgson, Cradley Heath, Staffordshire; Ebenezer Mark Thompson, Billinghay, Lincolnshire; William Alfred Elliston, Ipswich; Nathaniel Hellings Lloyd, Tiverton, Devon; John Anderson, Green Heys, Manchester.

The following gentlemen also on the same day passed their First Examination:—

Ernest Arthur Hudson, St. Mary's Hospital; George F. W. Meadows, Guy's Hospital; John Foot Churchill, Charing-cross Hospital; James Herbert Brown, St. Bartholomew's Hospital; Chas. James Wright, Leeds.

APPOINTMENTS.

BOLLAND.—John Bolland, L.R.C.P. Edin., L.R.C.S. Edin., L.A.H. Dub., L.M. Roy. Hosp., has been elected Medical Officer and Public Vaccinator for District No. 1 (including the Workhouse) of the Daventry Union, Northamptonshire, *vice* Sylvester Rutherford Skinner, M.R.C.S. Eng., and L.M., L.S.A. Lond., resigned.

FEARNLEY.—George Fearnley, M.D. Heidelberg, M.R.C.S. Eng., L.R.C.S. Edin., L.S.A. Lond., has been elected First Mayor of Dewsbury, Yorkshire, that town having recently obtained a Charter of Incorporation.

HARRIES.—John Davies Harries, M.R.C.S. Eng., L.S.A. Lond., Associate of King's Coll. Lond., has been appointed Surgeon to the Salop County Prison, *vice* Henry Fenton, M.R.C.S. Eng., L.S.A. Lond., resigned.

LAMBERT.—John Lambert, L.F.P.S. Glasg., has been appointed Dispenser to the Royal Portsmouth, Portsea, and Gosport Hospital, Portsmouth, *vice* Mr. Thomas David Bennett, resigned.

MURRAY.—Gustavus Charles Phillips Murray, M.D. Univ. Edin., M.R.C.S. Eng., has been appointed a Physician-Accoucheur to the St. George's and St. James's Dispensary, King-street, Regent-street, *vice* William Hamilton Roe, M.B. Oxon., M.R.C.P. Lond., resigned.

POTTS.—Walter Jeffery Potts, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for No. 5 District of the East Grinstead Union, Sussex, *vice* Mungo Park, M.B. Mar. Coll. Aberd., L.R.C.S. Edin., L.S.A. Lond., resigned.

RICE.—David Rice, M.R.C.S. and L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Harbury District of the Southam Union, Warwickshire, *vice* William James Shone, M.R.C.S. Eng., L.S.A. Lond., resigned.

TEEVAN.—William Frederic Teevan, F.R.C.S. Eng. (exam.), B.A. Univ. Lond., has been appointed a Surgeon to the St. George's and St. James's Dispensary, *vice* Christopher Heath, F.R.C.S. Eng., resigned, and Demonstrator of Anatomy at the Westminster Hospital.

WALLEN.—William Sowerby Wallen, M.R.C.S. Eng., and L.M., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator to the West District and Workhouse, Rotherhithe, Surrey.

WATSON.—John Watson, M.R.C.S., has been appointed District Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, *vice* Mr. Booth, resigned.

WHITE.—Nicholas Warburton White, M.R.C.S. Eng., L.A.H. Dub., L.M. Dub., has been elected Medical Officer to the Macroon Dispensary District, County Cork, *vice* Valentine MacSwiney, M.D. Univ. Edin., L.R.C.S. Edin., deceased.

WILLIAMS.—Aldborough Lloyd Williams, M.R.C.S. Eng., has been appointed Surgeon to the Cheltenham General Hospital and Dispensary, *vice* Walter Jessop, M.R.C.S. Eng., deceased.

WYNDOWE.—Assistant-Surgeon S. W. Wyndowe has been appointed Civil Surgeon of Malabar, *vice* Cleveland, resigned.

DEATHS.

ADELON.—Nicholas Philibert Adelon was born at Dijon, in 1782, and died one day last week. Appointed to the chair of Legal Medicine in the Faculty of Medicine of Paris in 1826, he held the post until 1861, consequently for a period of 35 years. He was one of the original Members of the Academy of Medicine in 1821, and in 1823 produced his *Traite de Physiologie*, one of the most popular works of the time.

BRENT.—July 21, George Smith Brent, of Keppel-street, Russell-square, L.S.A. Lond., Deputy-Coroner for Middlesex, aged 49.

DICKSON.—July 17, Robert Dickson, of Tullycairn, near Dromore, Co. Down, M.D.

EVANS.—July 25, Alfred Evans, of Eastfield-lodge, Walthamstow, Essex, L.R.C.P. Edin. (exam.), F.R.C.S. Eng., L.S.A. Lond., F.L.S., aged 49.

KING.—July 2, off Madeira, on the homeward passage, invalided, Alfred King, Assistant-Surgeon R.N., January 26, 1856; Assistant-Surgeon to the *Isis*, Depôt Ship at Sierra Leone, June 5, 1861.

SMITH.—July 25, at Portland House, Cheltenham, Thomas Johnson Smith, M.D. and C.M. Univ. Glasg. (son of Thomas Smith, M.R.C.P. Lond., M.D., and C.M. Univ. Glasg., M.R.C.S. Eng.), aged 23.

STROTHER.—March 1, Arthur Strother, the younger, of Forest-gate, Essex, Surgeon.

WATERLAND.—July 22, at Burton-upon-Stather, Lincolnshire, Henry John Waterland, late of Kirton-in-Lindsey, M.R.C.S. Eng., L.S.A. Lond. aged 38.

LONDON GAZETTE.

July 25.

Commissions signed by the Lord-Lieutenant of the County of Sussex.

2ND ADMINISTRATIVE BATTALION OF SUSSEX RIFLE VOLUNTEERS.—Henry Martin Holman to be Assistant-Surgeon; dated July 16, 1862.—Henry J. D. Mathews to be Assistant-Surgeon; dated July 16, 1862.

4TH SUFFOLK RIFLE VOLUNTEER CORPS.—The following memorandum, which appeared in the *Gazette* of the 13th ult., has been cancelled:—Her Majesty has been graciously pleased to accept the resignation of the Commission held by Honorary Assistant-Surgeon Frederick Hills Harris.

July 29.

2ND DRAGOON GUARDS.—Veterinary Surgeon Tom Parinder Gudgin to be Veterinary Surgeon of the 1st class; dated July 29, 1862.

1ST DRAGOONS.—Veterinary Surgeon Evander Chambers to be Veterinary Surgeon of the 1st class; dated July 29, 1862.

4TH HUSSARS.—Surgeon Thomas Ligertwood, M.B., from the 61st Foot, to be Surgeon, *vice* Surgeon-Major Archibald Alexander, who retires on half-pay; dated July 29, 1862.

6TH DRAGOONS.—Veterinary Surgeon James Collins to be Veterinary Surgeon of the 1st class; dated July 29, 1862.

7TH HUSSARS.—Veterinary Surgeon John Barker to be Veterinary Surgeon of the 1st class; dated July 29, 1862.

ROYAL ARTILLERY.—Staff Assistant-Surgeon Alexander Crawford Robertson, M.D., to be Assistant-Surgeon, *vice* William Taylor Morgan, M.D., who resigns; dated July 29, 1862.

ROYAL ARTILLERY.—Staff Assistant-Surgeon James Alfred Turner to be Assistant-Surgeon, *vice* John James Colin Rogers, who resigns; dated July 29, 1862.

Veterinary Surgeon William Partridge to be Veterinary Surgeon of the 1st class; dated July 29, 1862.

Acting Veterinary Surgeon Walter Burt to be Veterinary Surgeon, *vice* Longman, appointed to the 9th Lancers; dated September 11, 1860.

Acting Veterinary Surgeon Charles George Hetherington Reilly to be Veterinary Surgeon, *vice* Frederick H. R. Spratt, who resigned; dated February 15, 1861.

Veterinary Surgeon Frederick H. R. Spratt has been permitted to resign his commission; dated February 28, 1862.

2ND REGIMENT OF FOOT.—Staff Assistant-Surgeon Henry Stewart Lodge, M.B., from half-pay to be Assistant-Surgeon, *vice* Sinclair, promoted on the Staff; dated July 29, 1862.

12TH FOOT.—Staff Surgeon Thomas Knox Burnie to be Surgeon, *vice* H. M. Webb, M.B., appointed to the 18th Hussars; dated July 29, 1862.

19TH FOOT.—Staff Assistant-Surgeon Francis Patrick Staples to be Assistant-Surgeon, *vice* Hewlett, resigned; dated July 29, 1862.

60TH FOOT.—Assistant-Surgeon Alexander Campbell McTavish, from the 72nd Foot, to be Assistant-Surgeon, *vice* Macartney, appointed to the Staff; dated July 29, 1862.

61ST FOOT.—Staff Surgeon Usher Williamson Evans, M.D., to be Surgeon, *vice* T. Ligertwood, M.B., appointed to the 4th Hussars; dated July 29, 1862.

72ND FOOT.—Staff Assistant-Surgeon Joseph John Pope to be Assistant-Surgeon, *vice* McTavish, appointed to the 60th Foot; dated July 29, 1862.

89TH FOOT.—Staff Surgeon John Thomas Watson Bacot to be Surgeon, *vice* Porter, appointed to the 97th Foot; dated July 29, 1862.

93RD FOOT.—Staff Assistant-Surgeon Patrick Charles Baxter, M.B., to be Assistant-Surgeon, *vice* Sinclair, promoted on the Staff; dated July 29, 1862.

97TH FOOT.—Surgeon Joshua Henry Porter, from the 89th Foot, to be Surgeon, *vice* Alexander Macrae, M.D., deceased; dated July 29, 1861.

MEDICAL DEPARTMENT.—Assistant-Surgeon James Sinclair, M.D., from the 2nd Foot, to be Staff Surgeon, *vice* William Odell, M.D., placed on half-pay; dated July 29, 1862.

Assistant-Surgeon William Sinclair, from the 93rd Foot, to be Staff Surgeon, *vice* Bacot, appointed to the 97th Foot; dated July 29, 1862.

Staff Assistant-Surgeon Francis Lewis Fitzgerald, to be Staff Surgeon, *vice* William Carson, M.D., placed upon half-pay; dated July 29, 1862.

Staff Assistant-Surgeon John Bradshaw, to be Staff Surgeon, *vice* Patrick Andrew McDermott, appointed to the 3rd West India Regiment; dated June 10, 1862.

Assistant-Surgeon Robert Fleetwood Audrews, from the 2nd Dragoon Guards, to be Staff Assistant-Surgeon, *vice* Fitzgerald, promoted on the Staff; dated July 29, 1862.

Assistant-Surgeon James Macartney, from the 60th Foot, to be Staff Assistant-Surgeon, *vice* Pope, appointed to the 72nd Foot; dated July 29, 1862.

Staff Assistant-Surgeon James Land, M.D., from half-pay, to be Staff Assistant-Surgeon, *vice* Bradshaw, promoted on the Staff; dated July 29, 1862.

Staff Assistant-Surgeon Thomas Heazle, has been permitted to resign his Commission; dated July 29, 1862.

11TH LINCOLNSHIRE RIFLE VOLUNTEERS.—Thomas Handsley, Gent, to be Honorary Assistant-Surgeon, *vice* Odling, resigned; dated July 16, 1862.

12TH HAMPSHIRE RIFLE VOLUNTEER CORPS.—Robert Shackleford Cross, Gent, to be Assistant Surgeon; dated July 26, 1862.

THE PARIS ACADEMY OF MEDICINE.—M. Robin, in consequence of his appointment to the Histological chair in the Paris Faculty, has resigned his Secretaryship at the Academy of Medicine. He has been succeeded by M. Jules Béclard, one of the last admissions into the Academy, his father, the celebrated Béclard, having filled the same office at the creation of the Academy forty years since.

CRIMINAL ABORTION.—Fanny Worbey, 32 years of age, was charged, at the Westminster Police-court, with being an accessory before the fact to the felonious using by a man named

Morgan of an instrument to procure miscarriage. On May 28, the prisoner came to the house of Mrs. Darby, 12, Bessborough-place, Vauxhall-bridge-road, stating that she had visited London to see the Exhibition, and took lodgings there. On June 7 the prisoner became so alarmingly ill that Mrs. Darby sent for Mr. Hunt, Surgeon, 108, Tachbrook-street, Pimlico. He found the accused labouring under the effects of miscarriage. The hæmorrhage was excessive, and she became so ill in the course of a few hours that it was apprehended she would not survive the night. The prisoner, while under the fear of death, made a confession, in the presence of Mr. Hunt and Sergeant Huddy, of the B division, which was taken down in writing and signed by her, stating that she had visited a man named Morgan, at 16, Moreton-terrace, who had two or three times used an instrument to her, which had given her great pain. He had recourse to a particularly large one on the last occasion, and the moment she got home her illness came on. She added to the landlady, that she had been to Morgan eighteen months ago, and that he had procured abortion for her then. The prisoner, who is still very ill, said, in reply to the charge, that she was not in a proper condition to make a statement at the time the one produced was taken down. Mr. Hunt and Sergeant Huddy had made several mistakes. The prisoner was fully committed for trial at the Central Criminal Court.

Our lively contemporary, *L'Union Médicale*, has some observations on Dr. Lankester's election to the Coronership of Central Middlesex. There is nothing, it says, in France analogous to this office; and the Middlesex Coronerships are the most important in the United Kingdom. It brought 45,000 francs per annum to the late Mr. Wakley. It was important, therefore, to keep the succession in the Medical Profession, and it is difficult to convey to a Frenchman an idea of the means employed for that purpose. "Démarches de tout genre, frais de toute sorte pour décider, héberger, conduire les électeurs au scrutin, rien n'a été épargné; une souscription a même été organisée pour en couvrir les frais; et le corps médical s'y est dévoué, il faut le reconnaître avec un ensemble une confraternité que nous ne saurions atteindre ni imiter, surtout pour une place qui rapporte net 30,000 francs par an." *L'Union Médicale* adds that this is an example of what the Profession *could* do, if similar unanimity prevailed in other matters. The same journal bears testimony to the untiring humanity of Richard Griffin, whose efforts on behalf of the bereaved family of Mr. Puckett are well known to our readers. It says also that a rush of French candidates have been making inquiries respecting the chair of Physiology at Melbourne, which has been conferred on Dr. Halford. It describes the necessary qualifications to include,—the speaking English like a native; to know the works of English Physiologists, their classifications and manner of handling their subject; to have done original work; and to possess the recommendation of great names,—and seems to consider that these would be a damper to most French candidates.

The Rev. Mr. Livesey, Incumbent of St. Philip's Church, Sheffield, has been let off with a nominal punishment, for the offence of certifying to the burial of the corpse of a man who had been dissected at the Anatomical School at Sheffield, whereas the remains of the man had not been buried at all. The trial took place at York on July 24, before Mr. Justice Mellor. It was stated, on the part of the prosecution, that an arrangement had been made by the sexton, Isaac Howard, with Mr. Barber, the Curator of the Sheffield School of Anatomy, by which the bodies taken for dissection by the Anatomical School should afterwards be taken to the burial-ground of St. Philip's and be there buried in the cemetery, for which a fee of 13s. 6d. was paid, including the shell or coffin which was to be provided. Under the Anatomy Act, passed to prevent the disinterring of dead bodies, the law allowed only two classes of persons to be received in the Medical Schools for dissection—those who died in the Workhouse unclaimed by their friends, and the bodies of the persons who by will desired themselves to be dissected. This statute provided that any such bodies taken for the purposes of dissection should be placed afterwards in proper coffins and be decently interred, in consecrated ground, and that a certificate of the interment of the body should be then transmitted to the Registrar. The statute took every care that the remains of persons so dissected should be interred with all due respect. The body of the deceased man, the cause of the present inquiry, had been removed in a box in a wheelbarrow from the Medical School to the cemetery. It had been represented to the prisoner by the sexton that the body of a man had been received from the Medical School, and the prisoner had on that representation entered in the register the name of "Joseph Greatorex, Medical-hall, buried the 3rd of April—the ceremony performed by John Livesey." This was a false entry; the body was never buried at all, and the prisoner read no Burial Service and performed no ceremony over it. Mr. Livesey, in exculpation of himself, had written an explanation to the *Sheffield Daily Telegraph* newspaper, stating in effect that the box had been placed in the coach-house, and that it contained a mass of decomposed matter over which he had not thought it right to read the Burial Service, and that it had been placed in the catacombs with the bodies of still-born children and other relics of humanity, over which the Burial Service could not regularly be read. It was stated in evidence that five bodies only per annum were dissected in Sheffield. The learned Judge affirmed distinctly the intention of the Legislature that the bodies of dissected persons should be regularly interred with a funeral service, but summed up in favour of the prisoner. He was found guilty, and sentenced to a short imprisonment. We feel convinced that unless the public believe that the remains of dissected persons are treated with common respect, great difficulties will from time to time arise.

Murder of an Illegitimate Child.—At the Exeter Assizes, on July 30, Martha Hocking was indicted for the wilful murder of her child, Richard Hocking, on March 27. The prisoner was a single woman, living in service at Tetcott. She had had an illegitimate child, which in March was a fine child, twenty months old. It had been for some time out at nurse with a sister-in-law of the prisoner, who told her she was not able to keep the child any longer. The prisoner cried bitterly, said she did not know what she should do; she thought she would go and drown herself and the child. The poor girl was evidently wandering about from village to village for two or three days. She had been keeping company for twelve months with a man named Headon, by whom she was at that time pregnant. On the Wednesday night she went to Mrs. Oxenham at Tetcott, where Headon lived. They had some conversation together. He then went away, and the prisoner told Mrs. Oxenham that he had promised to maintain the child she was then pregnant with, and if it were not for the one she had in her lap she would not care. She said her mother and sister had passed her the previous day and would not speak to her, but treated her with scorn. Mrs. Oxenham treated her with great kindness, and gave her some tea. The unhappy girl was in great distress, and cried much, and said she did not know what she should do, as she had no place to go to. Mrs. Oxenham said she might go into her barn, where there was some straw, but she asked Mrs. Oxenham to let her have a stool and sit in her porch. Mrs. Oxenham gave her a stool, and she went into the porch. She sat down, and had the baby wrapped up in her mantle on her lap. Mrs. Oxenham then went to bed, leaving her sitting on the stool. About seven in the morning Mrs. Oxenham heard a scream. She went out and saw the prisoner sitting on a bank by the orchard gate, and in the greatest distress. The child was then lying on her lap quite dead, and wet. The prisoner said, "I have drowned my dear child; come and kill me." Information was given to the police, and the prisoner was taken up, and when charged with the murder made a long statement, of which the following is part:—"I put the child in the water as the clock struck two. I then left it. I returned again to take it up, if it was not dead. The child breathed once after I took it out of the water at Stone-hill. I then took the child and carried it to Fernhill-green, beside the pond, where I sat down. I told Oxenham, as he passed in the morning, I had killed the child, and begged him to kill me." The Surgeon who was called stated that he had attended the prisoner at Christmas (three months before the murder) for a hysteric condition resembling delirium tremens, and the jury acquitted the prisoner on the ground of insanity.

Manchester Medico-Ethical Association. — The following petition was presented to the House of Commons, on Monday, July 21, by Thomas Bazley, Esq., M.P.:—"To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled. The petition of the undersigned, on behalf of the Manchester Medico-Ethical Association, humbly showeth, that the Act passed in the year 21 and 22 Vict., cap. 90, entituled 'An Act to regulate the Qualifications of Practitioners in

Medicine and Surgery,' and generally cited as 'The Medical Act,' has, after four years' experience, been found inadequate to the requirements of the Medical Profession, and the welfare of the public. That whereas the preamble to the said Act states, that 'it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners,' the Act itself fails to define the titles and qualifications of such Practitioners. That one great feature of the 'Medical Act' having been the formation of a 'General Council of Medical Education and Registration,' yet a recent instance seems to show that there are no satisfactory powers to compel the various licensing bodies to conform to the requirements of such Council. That whereas the Act forbids the assumption of Medical titles by unqualified and unregistered persons, the 40th Clause has been decided by the Judges of the higher Courts to have failed in its intentions, and to be inoperative. That whereas the 36th Clause forbids the appointment of unregistered persons to public services—Hospitals, clubs, emigrant vessels, and in other ways, no provision has been made whereby this clause can be enforced. That although the said Act professes to protect 'persons requiring Medical aid' from incompetent and unqualified persons, yet it nowhere attempts to prevent or prohibit the practice of Medicine or Surgery by such incompetent or unqualified persons. That a competent knowledge of both Medicine and Surgery is indispensable to the practice of the Medical Profession, and yet the Act allows persons to register who may have undergone the test of fitness by examination in one of the branches of the Profession only. That the word 'Surgery' is very commonly used by unqualified and unregistered persons as a public inscription or sign on or about their dwellings or places of business, thereby misleading the public whom it is the intention of the Medical Act to defend, and the said Act contains no provisions to meet this evil. That offences under the penal clauses of the said Act are proveable by 'implication' only, which is generally deemed unsatisfactory by the Judges. Your petitioners therefore humbly pray, that in consequence of the above-cited and other deficiencies in the said Medical Act, and its admitted failure, after four years of patient trial and experience of its workings, your Honourable House will give its attention to the subject, and devise such measures to prevent existing abuses as shall, in its wisdom, seem most fit. And your petitioners will ever pray, etc., James Lomax Bardsley, Knt., M.D., *President;* Joseph Stone, M.D., and Jonathan Wilson, F.R.C.S., *Hon. Secs.*—Manchester, July 18, 1862."

THE COLONIAL HOSPITAL, TRINIDAD.—We have lately received the Report of the Colonial Hospital at Trinidad for 1861. This Institution, which is situated on the old site of the Orange Grove Barracks, has during the last four years received on an average 883 patients per annum. The patients have been from every quarter of the globe, and of every variety of man. The great mortality amongst the troops at the Orange Grove Barracks promised ill for the salubrity of an Hospital erected on the same ground. The experience of the last four years has, however, shown that the fault was in the building, not in the site. The average mortality of the troops in the barracks was 7 per cent., whilst that of the patients admitted into the Hospital has been 3 per cent. less. The report gives full particulars of the drainage, locality, and resources of the Hospital. The building is thus described:—"The Colonial Hospital consists of a main building with a façade 390 feet in length, running north and south, including the administrative offices, and at each extreme of the main building two short wings project into the rear. There is a ground-floor and an upper story. The ground-floor is divided by a grand central staircase into two wards, capable of accommodating 30 patients each. These wards are each 63 feet in length, 32 in width, and the space between the foot of each bed is upwards of 16 feet. They each contain 28,590 cubic feet of space, with 646 superficial feet of wall aperture, giving to every patient 953 cubic feet, or upwards of 317 cubic yards of air, being six times as much as the average amount of air allowed for each patient in the wards of five of our London Hospitals, and nearly eight times as much as the average amount allowed in eight of the Parisian Hospitals. The upper floor, accommodating 60 patients, contains 221,676 cubic feet, with 1882 superficial feet of wall aperture, giving to each patient 3695 cubic feet, or 1231 cubic yards of space, being twenty-four times more than the English, and thirty times greater than the French Hospitals before named. This great space in the upper story arises from the space occupied by the front and back galleries of the basement story being embraced by the flooring of the upper story. On the score of ventilation then, and in absence of overcrowding, the Colonial Hospital is, perhaps, as perfect as could be desired, going in these respects far beyond the Model Hospital of the Royal Commissioners, as well as the principal Hospitals of England and France." The following extract, giving a picture of the hygienic and moral condition of the Chinese labourers contrasted with that of the other coloured population is worth notice:—"As compared with their own section of the population, the Chinese show, from a total of 217, no less than 17·05 per cent. on admissions; and when it is considered that one-half of the Chinamen who come into Hospital are syphilitic patients, and that the remainder of those who come under treatment are more or less debilitated, if not absolutely enervated and ruined in constitution by depraved and immoral habits, more particularly those destructive habits of smoking and chewing opium, the question arises whether it be not possible to devise means, altogether apart from mere Hospital treatment, which deals only with effects; for remedying this state of things among that fractional part of the population. It is highly probable that the exclusive prevalence of syphilis among these immigrants is traceable to the difficulty experienced by Chinamen in forming matrimonial alliances with the coloured Creoles of the island, as well as to the non-introduction to the colony of Chinese female immigrants of their own class simultaneously with the males. This difficulty, however, is gradually undergoing the modification which time usually produces, and, though still existing to a large extent, yet, some intermarriages of a recent date show that the antipathy of the industrial class of coloured Creole women is not so strong towards the Chinese settlers and immigrants as formerly. Nevertheless, many of them have sunk into an effete state of physical debasement; and illicit association with the most abandoned class of our population is not uncommon amongst them. It is with this class of females they contract the disease referred to, which would scarcely have formed an appreciable element in our Hospital practice for the past year, were it not that 200 Chinamen out of a mixed population of 56,000 people contribute no less than 33 per cent. towards the total number of syphilitic cases treated. It affords me great pleasure to place on record, in juxta-position with this disagreeable fact, that the native population of Port of Spain and neighbouring wards, numbering as I have said, 55,000 persons, less the 200 Chinese referred to, contribute only four cases of syphilis out of the 58 treated during the year." The report, as a Medical state-paper, is highly creditable to its author, Dr. Richard Mercer, the Resident Surgeon.

OLD-FASHIONED prejudices must give way to reason, and, before long, Physicians will doubtless be able to obtain by marriage partners with whom they may spend their evenings in discussing Medical questions, or dissecting specimens of morbid anatomy. But if the female mind is so capable of grappling with the difficulties of one learned profession, why should the field of its exercise not be extended to others? Theology is well known to be a favourite study of what used to be called the softer sex; and as fluency appears to be the principal desideratum for pulpit oratory, the undeniable loquacity of your *protégées* might qualify them for popular preaching, while their pertinacity of purpose and shrillness of tone would probably prove no less effective in forensic contention. Now that reason has happily taken the place of regard for delicacy and refinement, the business of life will of course come to be discharged equally by both sexes; the conventional distinctions of dress, demeanour, and language will be discarded as the relics of an antiquated prudery, and all the members of society will enter upon a generous rivalry for success in the departments to which the choice of each may lead him or her. The only consideration likely to interfere with such an advanced state of things would be an uneasy fear that the discharge of important public duties, together with the engrossing cares attending them, might possibly interfere with the subject of maternity, or even perhaps endanger the perpetuation of the human race. But any inconvenience of this sort may be easily obviated by setting apart those who are willing to undertake the domestic drudgery of providing recruits for the nursery; and with due care in the selection of proper persons for this purpose the species might be perfected, so as to realise the grand idea of those philosophic philanthropists whose proposals have hitherto been treated with ridicule instead of the respect which they deserve.—*Scotsman.*

VITAL STATISTICS OF LONDON.

Week ending Saturday, July 26, 1862.

BIRTHS.

Births of Boys, 887; Girls, 871; Total, 1758.
Average of 10 corresponding weeks, 1852-61, 1620·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	618	519	1137
Average of the ten years 1852-61	583·4	546·0	1129·4
Average corrected to increased population..	..	..	1242
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	3	15	3	7	10	14
North ..	618,210	1	7	9	2	8	24	9
Central ..	378,058	..	9	3	1	3	14	6
East	571,158	..	24	6	2	6	19	20
South ..	773,175	2	6	15	3	9	7	19
Total.. ..	2,803,989	3	49	48	11	33	74	68

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Pater shall have an answer next week.

We beg to recommend to our readers the case of Francis Beauchamp Johnson, who is a candidate for a fouudation scholarship in the Royal College at Epsom. He is the son of the late Mr. F. H. Johnson, of Sunderland, whose book on the "Pyrenees" we reviewed last week. Mr. Johnson has left a wife and eight children, for the most part unprovided for. He was an active, energetic, and talented member of our Profession, and we heartily recommend the cause of those he has left to the Medical Profession. Mrs. Johnson has a number of copies of her late husband's work on hand, and would be materially assisted by disposing of them. The book may be obtained through the book-post by addressing a line to Mrs. Johnson, 35, Nelson-street, Sunderland.

ERRATA.—No. 629, page 74, line 24, *for* "Bayer" *read* "Boyer;" *for* "plessimetrime" *read* "plessimetrisme."

CAUSE OF IDIOCY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Dr. Mitchell has drawn the attention of your readers to a most important point regarding the production of idiocy. I was called to a neighbouring county to see a child, the eldest of three, who was a complete idiot from its birth. The other children appeared very intelligent, and I could trace no cause whatever for the idiocy in this case, unless it was owing to the fact that delivery was accomplished by one blade of the forceps used as a lever. I am, &c. JAMES C. L. CARSON, M.D.
Coleraine, July 26.

ERGOT OF RYE IN DYSENTERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Have any of your readers tried the ergot of rye in cases of dysentery? I have found it of unfailing benefit, and should urge its trial, feeling impressed that any remedy which will relieve this painful, serious, and troublesome disease is worth a general adoption. I use ten minim doses of the liquor prepared by Mr. Thompson, of Chiswell-street.
I am, &c.
Farnham, Surrey. ROBERT OKE CLARK.

THE DERIVATION OF "ANEROID."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The above word is, I believe, derived from *a* priv. and *νηρὸς*, moist: a more probable derivation than that ascribed to it by either of the authorities quoted by your correspondent. I am, &c.
Plymouth. W. F. S.

ON THE LOCAL USE OF ARSENIC IN ONYCHIA MALIGNA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Medical Times and Gazette* for July 5 is the report of a case, under the care of Mr. Adams at the London Hospital, in which a severe form of onychia maligna of the great toe was speedily cured by the local application of arsenic.

I wish to testify to the great value of this remedy when used in the way described by Mr. Adams. I learnt the fact first from Dr. Druitt's "Vade Mecum," in which the prescription is attributed to Mr. Abernethy; and during the last four years I have seen eight or ten cases of bad onychia either in the fingers or in the toes rapidly improve under arsenic after other treatment had been tried in vain.

I believe that arsenic cures onychia maligna, on account of its chemical action on the albumen of the diseased epidermic tissue. Upon the same principle depends the success of the application of a solution of bichloride of mercury and of diluted spirits of wine to some cutaneous complaints. Nothing wards off bed-sores so efficiently as a combination of those substances, as long ago recommended by Sir B. Brodie; while the every-day use of alum and zinc to control mucous discharges is an illustration of a similar chemical agency, and saves the necessity of bringing any theory of specific power into the field. I am, &c.
Bath, July 29. JOHN K. SPENDER.

MURDER OF A POOR-LAW MEDICAL OFFICER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your kind insertion of my letter relative to the terrible death of poor Puckett, together with your leading article on the subject have, I am happy to say, induced about 150 Medical men and 100 of the nobility, members of Parliament, gentry and others, to forward nearly £400 in aid of the fund for the support of the widow and family of the deceased; but as the interest from the sum, when invested, will be quite inadequate for their support, I am reluctantly compelled still further to urge their claims on the sympathy of the Profession and public at large, and trust that a larger sum may yet be forthcoming, as after the debts of the deceased are paid out of his own property, there will only be left from that source a very few pounds; the family, in fact, are literally dependent on what we may raise for their support, as the widow's state of health precludes her doing anything. The maniac was tried for his life, and pleaded guilty, at the same time saying, "I can't recollect," the Judge thereupon directed "a plea of 'Not guilty' to be recorded." The prisoner was then tried, and a verdict returned of "Not guilty on the ground of insanity," and he was to be detained during Her Majesty's pleasure.

Subscription by cheque, Post-office order, or stamps, may be forwarded to me or to Messrs. Eliot's Bank, Messrs. Williams' Bank, or the Wilts and Dorset Bank, all of Weymouth. Col. Gilpin, M.P. for Bedfordshire; the Rev. E. C. Headland, Rector of Broadway, where the deceased resided; the Rev. Talbot Baker, Vicar of Preston, in which village the murder was committed, and other gentlemen have kindly consented to act as trustees, and therefore no fear need arise as to the proper application of the money.
I am, &c. RICHARD GRIFFIN.

IRRITABLE BLADDER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The best medicine I have found for this is nitre and opium combined. The combination answered in the first case I tried it in, and gave relief in ten minutes, though opium alone had proved useless for days.

My ordinary formula is: ℞. Potass. nit. 3ij., tinct. opii. 3ij., aquæ ad 3viij., 3ss 4 quâque horâ. I am, &c.
12, Rodney-street, Liverpool. T. INMAN.

CHEMICAL BAROMETER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I see in your Journal for last week, that a gentleman, signing himself L.R.C.P. Lond., M.R.C.S., wishes to know how to make the chemical barometer, and any hints concerning its fidelity and prognostications he will be glad to receive. The mode of constructing it is this:—Take a glass tube about 12 inches long and ¾ of an inch in diameter, and fill it to within one inch and a-half from the top, of the following solution, or mixture:—camphor 3ijss. potass. nit. gr. xxxviij., ammon. mur. gr. xxxviij., spt. vini rect. 3xi, aquæ pur. 3xi. M.

The following indications are afforded by it, viz.:—1. If the solution be very clear, with only a small quantity of crystalline matter at the bottom of the glass, fine dry weather may be expected. 2. The formation of fresh crystals extending upwards through the glass, indicates a change of weather with rain. 3. The formation of plumose crystals, some of which float on the upper part of the liquid, indicates the approach of a storm with high wind. I am, &c. A MEDICAL STUDENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Perhaps you will accord me space in your Journal to give a formula for making a chemical barometer, such as your correspondent requires. I have used one for some considerable time, and find it to answer admirably. Take of camphor 3ij., nitrate of potash 3ss., carbonate of ammonia 3ss. triturate them until thoroughly pulverised, add proof spirit and distilled water, of each 3ij, pour into a large test tube, hermetically seal it up, and dissolve the whole by heat. It must then be hung up outside a window having a northerly exposure. For further particulars I must refer your correspondent to a "Dictionary of Daily Wants," vol. i. page 101. Published by Houlston and Wright, Paternoster-row. I am, &c.
M.R.C.S.

COMMUNICATIONS have been received from—

CAMBRIDGE; Professor GULLIVER; Dr. S. MORIARTY; Dr. LEARED; Dr. MERCER; THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS; Dr. G. BUCHANAN; Dr. JAMES M'CRAITH; Mr. HARDING; Mr. R. OKE CLARK; INSTITUS; "A QUACK IF HE DARED"; NORWAY COURT, INTERNATIONAL EXHIBITION (with drawing); SECRETARY OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH; Mr. J. Z. LAURENCE; ST. ANDREWS, ABERDEEN; ZETA; ROYAL COLLEGE OF PHYSICIANS; Messrs. CURTIS and Co.; THE ROYAL COLLEGE OF PHYSICIANS; Dr. PRINGLE; Dr. MUSHET; Dr. SOLTAU; M.R.C.S.; Dr. INMAN; PATER; MEDICAL STUDENT; Dr. HIRSCHBERG; Dr. CARSON; Mr. J. EVANS; THE MANCHESTER MEDICO ETHICAL SOCIETY; Mr. J. K. SPENDER; and Rev. Dr. NEEBE.

APPOINTMENTS FOR THE WEEK.

August 2. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

4. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

5. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

8. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF
PUNCTURE OF THE NECK, WITH A WOUND OF THE INTERNAL JUGULAR VEIN,
—HÆMORRHAGE ARRESTED BY PRESSURE.

By JOHN ADAMS,
Surgeon to the London Hospital.

Mary Ann R., aged 13, servant, while cleaning the window of an upper room, was suddenly seized with giddiness (to which she was subject), and at once fell, passing through a skylight. She was picked up insensible, and remained so until she was brought to the Hospital, on June 9, half an hour after the accident, Upon admission, she was pale and exsanguine, evidently suffering from the effects of loss of blood. Upon examination by the House-Surgeon (Mr. Gwynn), there was found a large deep irregular wound, situated in the right submaxillary space. No hæmorrhage was apparent at this time. The patient was then removed to the ward, and wet lint was applied to the wound. Mr. Adams's attention was shortly afterwards directed to the case; when, upon examination and removal of the clot, a gush of blood ensued, which was pronounced to come from the internal jugular vein. Mr. Curling, being in the Hospital at the time, his assistance was promptly obtained; he divided the skin upon Mr. Adams's finger, so that the bleeding vein might be secured, but the withdrawal of the finger was attended with an immense gush of blood. Temporary pressure was therefore applied with the finger. As the amount of hæmorrhage was so great, and as it appeared impossible to reach the vein, Mr. Adams plugged the wound with pieces of sponge, and applied a compress. The patient was kept in the recumbent posture, with the head extended. Beef-tea and milk diet were prescribed, and a constant and careful watch was kept over the patient in case of hæmorrhage.

June 10.—No further hæmorrhage has occurred. The patient complains of some pain in swallowing; an enema containing tinct. opii. mxx., and two ounces of beef-tea were administered every four hours. Passed a good night; was fretful and uneasy during the day.

11th.—Seen by Mr. Adams. The bandage was removed, and spirit lotion was applied. The head is now able to be raised.

12th.—Strapping removed by Mr. Gwynn. Sponge is still left in the wound, from which there is some sanious discharge. The adjacent parts do not appear inflamed.

13th.—Improving. Extremely fretful. Linseed poultice to be applied to the wound.

14th.—Progressing favourably. Seen by Mr. Adams, who removed one piece of sponge. Pulse 80. Sleep natural.

18th.—Mr. Adams removed one piece of sponge, replacing another. Patient is now able to take solid food.

30th.—Patient has gone on without an unfavourable symptom, is now up, and is able to take the ordinary diet of the Hospital. The wound has healed with the exception of a small healthy granulating surface, about the size of a shilling, which requires only simple dressing.

Gentlemen,—I direct your attention to the case before us because it illustrates some important points of practice, and because we may derive some hints from it in reference to hæmorrhage from veins: and I consider the latter point interesting, inasmuch as, in dealing generally with venous hæmorrhage, a knowledge of anatomy is quite as important as in cases of arterial hæmorrhage.

When called to a patient, as in the case before us, who has received a wound of any depth in any part of the body, the first question which suggests itself to the mind of the Surgeon is, whether the patient has lost much blood; of course if he is bleeding at the time, there is nothing else to be done but to stop the wounded vessel at once by suitable means; but it is well known that all hæmorrhage may have ceased from the coagulum in the end of the torn vessel, or the opening in the blood-vessel may, as in the case of a gunshot wound, have been closed by the pressure of some foreign body, as a piece of the patient's clothes. If there is no bleeding at the time, the Surgeon may reasonably infer, nevertheless, that the patient has lost a large quantity of blood by his general appearance and by the state of the pulse, and such other indications as are known to be characteristic of severe hæmorrhage; such indications applied to the case before us led me to infer that this patient had lost a large quantity of blood, although there was no other external mark of bleeding at the time when I saw her. If, therefore, from what I have stated, you suspect that a large blood-vessel has been wounded, you are urgently called upon to investigate this circumstance, although the bleeding may have ceased. I have so often witnessed mistakes from neglect of this point, that I cannot too forcibly impress the rule I allude to on your minds; therefore, notwithstanding all cessation of bleeding, you must examine the wound most carefully, remove all the clots, search for the wounded vessel, and, if possible, tie it. If an artery has been wounded in a young subject, it may have contracted to such an extent by its own inherent muscularity as to be found with much difficulty; but it must be found and tied, or, when reaction sets in, hæmorrhage is sure to recur; and you may be called on at any inconvenient season to tie a vessel, and when no assistants are at hand to give you aid. In wounds of the neck, where there is any suspicion that hæmorrhage has occurred, I consider it most desirable that you should not adapt the parts by suture or any other means, until you have thoroughly searched the wound and secured the blood-vessels, for the patient may be nearly suffocated by the pressure of the effused blood on the larynx and trachea. I may also tell you that the sudden fainting of the patient after a wound generally leads to the inference that a large-sized vessel has been wounded.

In the case before us, I acted according to the rule laid down, and, although the bleeding had ceased entirely, from the pallid aspect and almost pulseless state of the patient, I was certain a large quantity of blood had been lost: in this idea I was confirmed by Mr. Gwynn, the House-Surgeon. I therefore introduced my forefinger into the wound, which I found extended upwards, as far as the base of the skull, and on withdrawing it a large quantity of venous blood gushed out. I immediately re-introduced my finger and stopped the hæmorrhage. Of course I could not safely remove my finger, and was very glad to avail myself of the assistance of Mr. Curling, who, with a bistoury, enlarged the wound on my finger, so that I might, if possible, reach the vessel and tie it; but the wound was so high up that this was impossible, and as I was convinced that the internal jugular vein was the vessel wounded, I felt that no time was to be lost in seeking it. I therefore applied small pieces of sponge well pressed into the wound, and the hæmorrhage was arrested not to return: the sponge was confined by strapping and bandage. Now, you may say, is it right to put a ligature on the internal jugular vein? Certainly it is unless you can stop the bleeding by any other means, and I candidly tell you, notwithstanding the fortunate issue of this case, if I could have found the wound in a convenient situation I should have tied the vein; perhaps it is better that I did not, as all hæmorrhage was arrested by pressure; but there is nothing so satisfactory in hæmorrhage as the ligature. I must tell you that the case was materially aided by position, for the head was made dependent backwards over a pillow, or, as the report says, completely extended, the patient being in a position as you may often see calves placed in as they are being brought to market in carts.

The risk of phlebitis, which often attends ligatures on veins, is avoided by the employment of pressure. As the case before us illustrates the subject of wounded veins, and hæmorrhage resulting from such wounds, I may be excused from dwelling somewhat on this subject generally, and on this case in particular. Serious and fatal hæmorrhage from veins is not of very frequent occurrence, and perhaps that is one reason why no great deal of attention is given to it. When a patient dies from hæmorrhage, the blood usually comes from some large artery; but it happens now and then that fatal bleeding arises from wounded or divided veins; thus in the operation of lithotomy in persons advanced in years, I have seen such serious bleeding from the plexus of veins which surrounds the prostate and neck of the bladder as almost to destroy the patient; so also in amputation of the thigh, if the vein is cut obliquely most inconvenient hæmorrhage happens occasionally, and this more often occurs if no valves are near the divided end of the vein; when this happens it is better to dissect the vein upwards and cut it across at once, or if the bleeding still goes on, either a compress of lint must be

applied with a ligature attached so as to facilitate its removal, or the vein must be tied.

You will occasionally read in the public papers that a person has died suddenly in the street, or in a cab, or in a railway carriage, from the *bursting*, as it is termed, of a vein in the leg; this is no very uncommon occurrence. Frequently in the course of your experience at this Hospital you will have cases brought in in consequence of hæmorrhage from an ulcer on the inside of the leg above the inner ankle. These are varicose ulcers, and I often take the liberty to ask the junior students what is to be done in a case of this nature? and the answer usually is, "put a bandage on it, of course;" whilst the experienced Surgeon says, place the patient on the back and raise the heel, and the bleeding will cease. Now this is the plan you are to pursue, and many lives will be saved by this simple process. It is a very great pity that the public or, at any rate, that the police do not understand this, for by these simple means death may be frequently averted. Instead of putting on a bandage, just clap your finger on the ulcerated vein, place the patient on the back, raise the heel, and remove the garter. Position in Surgery is a great point, and in no case is its importance better exemplified than in this. In operations about the lower limbs it is important to attend to this. In opening abscesses, or rather in dilating openings in the skin, you sometimes divide rather large veins, and they pour out a large quantity of blood which the patient cannot afford to lose; raise the heel, and it ceases immediately. So also in the bleeding which comes from the prostatic plexus of veins; you had better try what elevating the pelvis will do before you resort to the unpleasant proceeding of plugging the wound.

Let us examine the philosophy of the practice. The venous blood in the *bursting* of veins in the lower parts of the body comes from that part of the vein nearest the heart, and not from the distal part; if it came from the latter, the practice would be positively injurious. But we know this is not so; and the same fact is illustrated in various diseases of the venous system. Thus in simple varix of the *saphæna* vein the vessel is dilated by the pressure of the blood from above; so also in varicocele the same rule applies, and the operations for the cure of these diseases are performed according to the principle I am inculcating. I cannot exactly say whether the internal jugular vein in the case before us was simply opened or completely divided, nor do I think it a matter of very great importance in the case. A simple opening in a large vein requires a ligature, which should only enclose the divided edges of the vein; but in a complete division of the vessel it should be wholly included. But as no ligature could be applied, I contented myself with the use of pressure aided by position, and the case succeeded. You will, however, bear in mind that, in regard to the large veins carrying the blood from the brain, the blood is carried downwards towards the heart, in which direction, in man at least, it is favoured by gravity; therefore the bleeding must here have come from above, and not from the lower part of the internal jugular; therefore the pressure was by the aid of sponge made in an upward direction, and the head was carried backwards and made dependent.

I cannot say that this case at all bears any especial reference to the phenomena of the cerebral circulation. If the notions formerly entertained on this subject were correct, it would be almost impossible for a patient to bleed to death from a wound of the internal jugular vein, as the bleeding would be restrained by atmospheric pressure. But although there are some peculiarities in the circulation of the brain, as in the closed condition of the skull, in the venous reservoirs in the dura mater (the sinuses), it is nevertheless proved to all practical intents that there is no difference between this and other parts of the body in regard to hæmorrhage. The circulation of blood in a bone is very analogous to that within the cranium. And here all the blood-vessels are enclosed in a solid case of bone; yet we know that serious venous hæmorrhage may occur here as well as elsewhere.

A new Male Lock Hospital was opened on Thursday, the 7th inst., at 91, Dean-street, Soho.

Prevention of Pitting of Small-pox.—M. Debout recommends the following application, to be applied by means of a pencil or feather:—Collodion 40 parts, bichloride of mercury 1 part.—*Journal de Chimie Med.*, April.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF PHOTOPHOBIA IN SOME TROUBLESOME AFFECTIONS OF THE EYE.

By GEORGE LAWSON, F.R.C.S.

Surgeon to the Great Northern Hospital; Assistant-Surgeon to the Royal London Ophthalmic Hospital.

Photophobia—a symptom common to many affections of the eye—is one of the most troublesome for the patient to endure and for the Surgeon to subdue. It is seen in its severest form in pure cases of strumous ophthalmia, in corneitis, in ulcerations of the cornea, and in some cases of rheumatic iritis, where I have known the intolerance of light to be so severe that the patient has felt himself obliged to exclude every ray from his room, and keep himself in perfect darkness.

In strumous ophthalmia, a disease which is almost peculiar to children, and appears most usually at ages varying from 2 to 10 years, the symptom which masks all others is photophobia; indeed, nothing abnormal is often to be seen, even if you succeed in forcing the eyelids sufficiently apart to examine the globe. The intolerance of light is excessive; with a clenched fist in each eye, the head bent, and the orbicularis strongly contracted, the child is brought for advice. To obtain a view of the cornea is almost impossible, unless the lids be opened with a speculum, and the globe drawn down with forceps; for after getting the lids apart, the eye to avoid the light is drawn rapidly upwards, and the cornea is completely hidden beneath the upper lid.

To examine visually an eye in this extreme state of irritability is unnecessary, for the symptoms which are apparent, are sufficient to indicate the treatment to be adopted. Whether the dread of light is dependent on strumous ophthalmia, corneitis, or ulcer of the cornea, very much the same treatment is to be pursued.

In the first place it must be observed, that photophobia is a symptom which is common in these affections to the anæmic as well as to the plethoric patient. The pale, thin, ill-nourished, anæmic-looking child suffers from it in common with the red-faced and plethoric one, and although the greatest amount of intolerance may be seen in children who bear all the characteristic markings of a strumous diathesis, yet it is certainly not peculiar to them.

The conjunctiva need not be injected, or the brilliancy of the cornea be dulled, for the greatest amount of intolerance to be present; both may exist, but neither are necessary for the production of this symptom, as is seen in some of the most obstinate cases of strumous ophthalmia. Whether photophobia is dependent, as I strongly suspect it is, on abnormal irritability of the filaments of the fifth pair of nerves which are distributed to the eye, I will not now discuss.

In the treatment of such cases, the plan I have found most successful, is first to remove all sources of eccentric irritation. Inquire if the patient suffers from ascarides, regulate the bowels, and order a plain and nourishing diet. This practice would apply to all diseases; but for the special treatment of this symptom—of intolerance to light—I will take the different remedies which I have found beneficial *seriatim*, and premise that although each may be used separately, yet the whole may often with advantage be prescribed together.

I would class them into,—Sedatives to the eye; sedatives administered internally; cold sponging to the eye; counter-irritants; and iron.

The Sedative for the Eye which I generally employ is atropine, of the strength of one grain of the sulphate to half an ounce of water.

The pain and restlessness produced in the patient by prolonged photophobia is often to a great extent the cause of its continuance. The child becomes fretful and declines its food, sleeps badly at night, and although suitable tonics and purgatives may have been prescribed, yet they fail in producing that amount of relief which is rightly expected from them. Often in such cases, if you can quell for a time the intense intolerance of light, you speedily place the patient as it were on the road to recovery, and thus started, he rapidly gets well. A solution of atropine such as I have mentioned, will, if frequently dropped into the eye, in a short time relieve the

excessive photophobia, so that in a tolerably darkened room, *i.e.*, simply with the window-blinds down, the child will be able to walk and play about with comfort, only suffering that amount of intolerance which is consequent on a widely dilated pupil.

Sedatives Administered Internally.—If, however, there is excessive irritability and fretfulness of the child by day, and wakefulness at night, and no relief has been obtained by freely clearing out the bowels, by cold sponging, or, perhaps, even by counter-irritation, then sedatives internally are clearly indicated, and may be prescribed either in the form of Dover's powder, one, two, or three grains of which, according to the age of the patient, may be combined with a little rhubarb, and given every night, or two or three minims of the liq. morphiæ hydrochlorat. may be taken with liq. cinchonæ during the day. This sedative treatment will often succeed in allaying the irritability of the eye after all other means have failed. In my case-book I have many cases which bear ample evidence of this fact.

Cold Sponging.—Of all applications the most grateful to patients suffering severely from photophobia, is sponging the eye frequently with cold water, or applying it by means of a douche. The eye should be gently closed as if in sleep; the cold is appreciated through the lids, and the irritation, which even water produces when suddenly splashed into the eye, is avoided. The cold acts as a local sedative, and may be used as often as the patient likes. A basin of water should be kept in the room, and occasionally a lump of ice added to it, and the child should be allowed to sponge its eyes five or six times daily, or as often as they become hot and painful.

Counter-Irritants are often exceedingly useful, especially where the photophobia is dependent on corneitis or ulcers of the cornea. Perhaps the most efficacious is the application of the solid nitrate of silver. This, after having been moistened, should be drawn once or twice across the integument of the upper lid, but not more. It is an exceedingly painful application, but it is often followed with very decided benefit. It is also a very powerful remedy, and if applied recklessly may produce very serious results. A case has lately been under my care, where the Surgeon with more zeal than discretion freely applied the nitrate of silver to the skin of both the upper and lower lids of one eye, and also around the orbit. Violent cellular inflammation and suppuration followed, not only of both the upper and lower eyelids, but also of the cellular tissue of the cheek. The child at one time was in a very precarious state, and although she has now recovered, yet an ectropion of the lower lid, caused by an adhesion of the integument to the malar bone, remains. The safest and best counter-irritant is a spirituous solution of iodine of the strength of ʒj. of iodine to one ounce of spirits of wine; applied not too thickly to the external surface of the upper lid and around the brow. It often of itself relieves, but it is also a very useful remedy to apply in combination with others.

Iron, in one form or another, is a remedy which has received more credit for the constitutional treatment of these affections than any other drug, and I think justly. But to give it with effect, certain rules are necessary. Before prescribing it, the bowels must have been well acted on; if the skin is hot and dry, sudorifics or salines must be first administered; and during the time the patient is taking the medicine, the regular action of the bowels must be maintained, if necessary, by purgatives. The preparation of iron to be used must vary with the condition and age of the patient, and also with the malady from which he is suffering. I believe the giving of large doses of iron is often positively injurious, as but a small portion of it is absorbed, and the remainder may, and often does, interfere with proper digestion.

In very young children, from two to four years of age, I have found two or three grains of the citrate of iron, or the mist. ferri. comp. of the London Pharmacopœia, in teaspoonful doses, given shortly after a meal, twice a-day, very efficacious. Another admirable preparation is the syrup of the iodide of iron, which, in strumous cases, often acts in a most satisfactory manner. Undoubtedly the greatest relief from the exhibition of iron is experienced in those children who have a puffy anæmic appearance, and whose blood appears to be deficient in colouring matter. In cases of specific corneitis with great intolerance, the syrup of the iodide seems to answer best, while in the corneal affections, with great photophobia, which frequently come on after measles, or other of the exanthemata, the citrate of quinine with iron is the most useful.

Photophobia in Iritis.—This is not a frequent symptom in iritis; a certain amount of intolerance is indeed common, but not such as to deserve the name of "photophobia." There is, however, a form of iritis in which the dread of light is excessive, and the admission even of a ray into the apartment in which the patient is living, produces the greatest annoyance. It is one of rheumatic iritis to which I allude. The aqueous becomes yellow and serous, and slightly muddy; but the amount of lymph which is effused is small, sufficient, perhaps, to produce some adhesions of the iris to the capsule of the lens, but very small, indeed, when contrasted with what is seen in the syphilitic class of this disease. The supra-orbital pain is unusually severe, and, in fact, all the nervous symptoms of the disease are exaggerated. There is commonly a rheumatic history; the patient has previously suffered from rheumatism, and, perhaps, on further inquiry, he is even now troubled with pains in the joints or in the soles of his feet. I believe that in such cases mercury is necessary, but that it should be given with anti-rheumatic remedies; that the pupil should be kept fully under the influence of atropine, and the patient confined to a darkened room; but this treatment alone frequently does not afford relief to the photophobia. The usual condition of a patient who is suffering prominently from this symptom, is that of anæmia and debility, and although it is necessary judiciously to administer some mecurials, yet the medicine which will often succeed in giving benefit when all others have failed, is a mixture of the disulphate of quinine with the tinct. ferri sesquichlorid. The sudden diminution of the photophobia which I have frequently seen follow this medicine, is most marked and unmistakeable. If there is sleeplessness at night, of course opium is indicated, and should be ordered. The diet should be a liberal meat one, with some wine. It should be remembered that although it is desirable to keep the patient in a darkened room, yet he should not be in absolute darkness, as this is of itself sufficient to keep up a dread of light, and even to produce a certain amount of intolerance in a healthy eye. I will briefly add one case as illustrative of the above:—

A. B., aged 34, came under my care on account of an attack of rheumatic iritis. He has suffered severely from rheumatism, and has now pains about the shoulder-joints. The iris is extremely sluggish, and seen through a turbid yellow aqueous, looks muddy. Dilated with atropine no adhesions to be seen. He is pale, and out of condition, with a rather small and quick pulse. He suffers very severe neuralgic pains in the course of the supra-orbital nerve, and in the globe, and is sleepless at nights. He has the most intense photophobia, and feels himself obliged to draw down the blinds, close the shutters, and even to fasten up rugs over the whole so as to prevent any light whatever from entering his apartment. He was treated moderately with mercury, opiates, and special remedies prescribed for the rheumatic symptoms, but without deriving any benefit—as far as the intolerance of light was concerned. The aqueous became more clear, and the striated appearance of the iris more distinct, but the photophobia was undiminished. At last he he was ordered the mist. quinæ c. tinct. ferri sesquichlorid.; after taking this for twenty-four hours he declared himself very decidedly better, and from that time he progressed rapidly and was soon able to go into the country.

63, Park-street, Grosvenor-square.

ON A CASE OF

GANGRENOUS ABSCESS OF THE LUNG SUPERVENING UPON TYPHOID FEVER—

ANASARCA—RECOVERY.

By KEITH N. MACDONALD, L.R.C.S. Edin.

Though Medical literature is by no means wanting in cases of gangrenous abscesses of the lungs terminating in recovery; yet it is hoped that the following case may, on account of the unusual features it presents, at least prove of some interest to those who have devoted a large share of their attention to the subject:—

Benjamin B., aged 24, unmarried, a stout phlegmatic looking man, of intemperate habits, has for the last three

years been employed as workman in a brewery, where he was in the habit of taking copious draughts of beer and other spirituous liquors daily, to the exclusion of a more solid diet, which ultimately reduced his system to such a low degree that he was seized on October 2, 1861, with fever, that assumed a typhoid type about the twentieth day; this was treated by stimulants (brandy and quinine), salines and cold lotions to the scalp. The incessant delirium, however, and extreme restlessness after a time rendered the exhibition of these stimulants more sparing, and for some time he was allowed three pints of beer a-day, which was his favourite beverage. Notwithstanding the use of the above-mentioned remedies, the fever proceeded unchecked for six weeks. On November 12, in addition to the foregoing, he complained of pain in his right side, between the sixth and seventh ribs, posterior to their angles; cough, and difficulty in breathing, with a quick weak pulse, loaded tongue, and great anxiety of countenance. Owing to an aggravation of the symptoms, a physical examination of the chest could not be undertaken for some days later, when, on auscultation, the signs elicited were indicative of fluid occupying the lower lobe of the right lung posteriorly, viz., deficiency of the respiratory murmur and mucous rattles, with dulness on percussion, and on the opposite side puerile breathing, which signs gradually extended anteriorly, and at length occupied the entire lower lobe. This state of matters demanded a fresh supply of stimulants and good nourishing diet, which were accordingly administered. On November 25 a small quantity of very fetid pus was expectorated, which under the microscope displayed a confused mass of broken down *débris* of lung tissue. This discharge soon became very copious, and was coughed up in large quantities, often streaked with blood.

December 10.—Prostration of strength became more and more marked; general anasarca took place. The face, hands, legs, and abdomen were swollen. The pulse was small, quick, and thready, and the dyspnœa and spasmodic cough were so distressing, though occasionally relieved by ether and ammonia, that he frequently gasped for breath. Quinine and brandy were again resorted to, as being the only remedies upon which much reliance could be placed,—the former as a tonic and antiseptic, the latter as a diffusible stimulant. In this perilous condition he continued till the latter part of January, 1862, when the first hopes of his recovery were entertained. Frequent relapses, however, recurred, which rendered the prognosis more unfavourable. About the beginning of March slight signs of amendment were perceptible; the cough and expectoration, which still continued extremely offensive, gradually diminished in quantity, and ceased on the 29th, after which date all the more formidable symptoms disappeared. The anasarca went down, but in the right cheek and hand, and at the ankles towards evening, slight swelling continued for some weeks longer. He got out of doors on April 27, since then he has been daily gaining flesh and strength, and is now engaged at the brewery as before.

Remarks.—This case having terminated successfully under disadvantageous circumstances, deserves brief comment. The first difficulty we encountered was a fever of a low typhoid type, that ran an unusually protracted course of six weeks' duration, and was combated only by the timely administration of brandy and quinine, which of all known remedies I consider of greatest therapeutic value in such cases. As to the pathological condition of the lung affected, we have only to refer to the information afforded by the physical and microscopical examinations, which left little doubt respecting the nature of the malady. From the foregoing, the reader will readily conclude that this was an example of the "hypostatic pneumonia" of some authors, which, in consequence of a depraved condition of system, ran into suppuration and gangrene. In point of diagnosis, I may mention that Dr. C. J. B. Williams, of London, has directed the attention of the Profession to a remarkable symptom in connexion with this subject, which he considers of great diagnostic value. (See *The Lancet*, April 12, 1862.) In speaking of gangrenous abscesses that discharge their contents through the bronchial tubes, he writes:—"When first expectorated, the matter expelled is horribly offensive, but when it has accumulated for some time in the sputorium it acquires rather a pleasant odour." The symptom referred to was not noticed in this case, probably on account of being unacquainted with the fact; but it is one that ought not to be lost sight of, as emanating from the pen of such an eminent author.

Wrexham.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

ABSCISSION OF THE FRONT OF THE EYEBALL IN A CASE OF LARGE STAPHYLOMA CORNEÆ —SUTURE OF THE SCLEROTIC.

(Under the care of Mr. HULKE.)

The two operations most commonly practised for large staphylomatous protrusions of the front of the eyeball, in order to enable the patient to wear an artificial eye, are, abscission of the offending portion, and enucleation of the entire organ. After abscission, a film of lymph spreads from the cut edges of the ocular tunics over the exposed surface of the vitreous humour, and, when all goes on well, granulation and cicatrisation follow, the remains of the eyeball forming a good support for the glass eye, which prevents this sinking, and gives it a more free movement. But not infrequently the eyeball suppurates, healing is slow, and the stump continues during a long time tender and painful. In the case now described, the plan of immediately bringing the tunics together with stitches, practised by Mr. Critchett, with the object of lessening the tendency to suppuration by protecting the vitreous humour from atmospheric contact, and hastening cicatrisation, was successfully employed.

H. S., aged 22, in October, 1859, inoculated her right eye with matter from an infant suffering with ophthalmia neonatorum. On the second day violent inflammation set in, and, in spite of a very active and judicious treatment, she recovered with an extensive staphyloma of the cornea, which after a few months had become so prominent that the eyelids could with difficulty be closed over it. The blemished eye now became painful, and seemed to distress the other. Soon after this, when she first came under my care, I found that, excepting a very narrow belt at its lower and outer border, the entire cornea was replaced by a dense white, conical scar. Through the small portion of healthy cornea left the iris was visible, and by looking very obliquely behind the scar a glimpse of the pupil could be caught. The entire retina was naturally sensitive, and she defined the flame of a candle held at the extreme right.

An attempt to arrest the progress of the staphyloma, and to improve sight by an iridectomy having failed, the front of the globe was cut off just behind the ciliary processes, and the gaping tunics were drawn together in a horizontal line by several fine silk stitches passed through the conjunctiva and sclerotic. In order to avoid having an angle at the ends of this line, the incision was carried a little farther back in the horizontal meridian. A week afterwards the stitches were removed, union had taken place, and an artificial eye was fitted. When this patient was next seen, a year afterwards, the illusion was so good that few unprofessional persons would have distinguished the artificial from the natural eye.

THE HULL INFIRMARY.

EXCISION OF THE WHOLE TONGUE FOR CANCER —DEATH ON THE NINTH DAY—AUTOPSY.

(Under the care of Dr. KING.)

[Reported by Mr. C. J. Evans.]

Sarah K., aged 74, a hale old woman, of wonderful spirits, had been twice married, and had thirteen children, of whom six are living. Has always enjoyed the best of health.

History.—About nine months ago (last July) she first noticed that something was the matter with her mouth, felt a soreness of the throat and some dysphagia, and a tightness behind the

angle of the lower jaw on the right side; but she had no particular pain, nor were the movements of the tongue then perceptibly affected. She has been in the habit of smoking for the last twenty years or more, though, she says, never to excess; the last two or three months, however, she has given up the habit. She was under Medical treatment for two months at the first, and obtained some relief; since then nothing has been done. She remained pretty well for a time, but the tightness at the back of the jaw then increased, and constricted its movements, as well as those of the tongue, rendering the acts of mastication and deglutition very difficult. These symptoms gradually increased, and she became conscious of a swelling and hardness at the root of the tongue. None of her relations or family have been the subject of "tumour" to the best of her knowledge.

Symptoms on Admission.—There is a swelling at the base of the tongue on the right side, very hard, but not ulcerated, extending almost to the tip, and connected with the arch of the palate and right tonsil, at which latter spot there is a slight abrasion of the mucous membrane. It is the seat of considerable pain, especially at night, her rest being much disturbed; and there is great difficulty in mastication and deglutition; indeed she takes mostly soft or liquid food; has pain also in both ears, at times shooting right through her head; and there is increased secretion of saliva. No glandular enlargement whatever. She is very anxious to have the disease removed.

March 18th.—The risk incurred in the operation having been previously fully explained to her, excision of the tongue was performed to-day in the following manner:—Chloroform being administered at first for a short time, but not to its full extent, one or two loose teeth having been removed from the front of the jaw, a vertical incision was made in the centre of the lower lip from its free margin to the symphysis of the jaw; this latter was then divided through the mesial line with a saw, and the two halves pulled outwards so as to leave wider space for manipulation. The tongue, together with the mucous membrane at the sides of the mouth, was now carefully detached all around from the inside of the rami of the jaw, the tongue being drawn forwards with a vulsellum. The whole of the tongue was removed, an incision being made with a scalpel right through its root close to the os hyoides. Before this part of the operation was completed the left lingual artery had to be tied, and the right had a ligature placed upon it for the sake of precaution, though it did not bleed. These were the only two ligatures hanging from the wound when the operation was finished. The right tonsil was now cut away, and several portions of hard tissue removed from that situation. The oozing of blood from this part was arrested by the application, on lint, of a solution of perchloride of iron in glycerine,—an excellent styptic in such circumstances where there is no distinct vessel to tie. The epiglottis was seen projecting about half an inch above the stump of the tongue. The edges of the divided lip were united by iron wire suture, and a pad of wet lint and bandage applied to give some support to the jaw. There was for such an operation but little hæmorrhage, and the patient showed considerable pluck, and behaved remarkably well throughout. She was removed to bed in a comfortable state, and ordered not to speak nor take any nourishment by the mouth, but everything per anum. Ordered to have an enema of beef-tea ʒiv., with one ounce of brandy every two hours, the first two or three to contain each half a drachm of laudanum. In the evening she was very comfortable indeed.

19th.—Passed a good night; no hæmorrhage. Injections given four times a-day, with the laudanum, as there is some tendency to diarrhœa. She slept soundly during the first part of the night, and at 2 a.m. herself assisted the nurse to administer the injection. At 4 a.m. (March 20) assistance was sought, as she was thought to be much worse. She was then scarcely sensible; roused with the greatest difficulty; pupils much contracted; breathing laboured, with rattling of mucus in the throat, which she was unable to get rid of from being unconscious. The mouth and throat were cleared of mucus as often as necessary, and she was roused, and the breathing sustained and increased by frequently rolling her on her side, after Marshall Hall's method. At times the breathing was so feeble that suffocation by the collected mucus seemed imminent. She remained totally unconscious till half-past seven, during which time the "ready method" was continued with only occasional intermissions. The pulse kept up pretty well, which was an encouragement to continue the method adopted; but it was thought she would not have lived till morning. The breathing afterwards became easier, and at the hour above named she became conscious and opened her eyes. The pupils still remained a good deal contracted; this condition passing off very gradually.

Twice in the day, now, 6 oz. of beef-tea and 1 oz. of brandy were introduced into the stomach with the ordinary pump, and the enemata continued four times daily, as before, only without the laudanum.

21st.—She complained much of two decayed teeth in the left half of the lower jaw, and they were accordingly extracted. This side of the jaw has a constant tendency to rise to a higher level than the opposite one. The wound presents a healthy aspect.

22nd.—The sutures in front of the chin were removed, the parts having united excepting one point at the bottom, where a small opening remains, conveniently situated for the discharge of matter, which is now rather copious and viscid. The stump of the tongue presents a healthy granulating surface, covered with a thin layer of pus. The chin is a little inflamed. A poultice mixed with lead and laudanum was applied to it, and the mouth rinsed out with sulphate of zinc wash. Each stomach injection now contains ʒiij. of port wine, and each enema ʒj. of brandy.

24th.—There is some redness and œdema of the right side of the neck just below the ear. Fomentation applied. As there was no union of the lip on the *in*side, a hare-lip pin was passed through it.

27th.—This morning she wrote upon a slate that she felt hungry (she had had one from the first, to express her wants upon), so three injections were given by the stomach daily, instead of two. Her spirits had kept up in a wonderful degree all along, and she was quite cheerful. Such was still the case now; but the pulse was decidedly feebler. She was much the same at six in the evening, when the third injection for the day was given, and for the last time, for at ten o'clock p.m. she became worse, quite unconscious, and pulse intermittent, and at twelve o'clock she died,—nine days after the operation.

Autopsy, Twelve Hours after Death.—Hyoid bone, œsophagus, larynx, and stomach removed entire. There was no attempt at union of the lower jaw. The back of the pharynx and parts immediately adjacent to the seat of the operation, inside of the cheeks and floor of the mouth, upper part of pharynx and epiglottis, presented a uniform greenish livid hue, more marked at some parts than others, the parts at the back of the mouth being coated with pus. The green appearance above named was quite superficial. Œsophagus healthy throughout. Cardiac portion of stomach presented extreme redness, resulting from minute points of extravasated blood; mucous membrane of this part softened; the rest of the stomach natural. It contained a brown fluid of spirituous odour, and some small pieces of greenish solid matter of doubtful nature. Lungs congested. Heart small and flabby. No other organs examined.

Dr. Francis Cornelius Webb, Lecturer on Medical Jurisprudence at the Grosvenor-place School of Medicine, Physician to the Great Northern Hospital, has been elected a Member of the Court of Examiners of the London Society of Apothecaries. The Court of Assistants of this Society have lately repealed their regulation prohibiting the Examiners from assuming the duties of Medical Teachers, and henceforth Lecturers on Medical Science will be eligible, if otherwise qualified according to the Act of Parliament, for seats at the Examining Board.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—At a recent general meeting of this Society it was announced that £977 had been distributed in half-yearly relief among forty-five families of deceased members, besides £63 given in casual relief. We strongly recommend to the notice of our brethren this Society, which supplies invaluable assistance in those cases of need and destitution which, unhappily, too frequently occur in our Profession, and we beg to remind them that a two years' membership is essential to enable their families to participate in its benefits. All information about the Society may be obtained at No. 53, Berners-street. We are glad to learn that the late Dr. Darling has left £100, free of legacy duty, to the Society.

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Medical Times and Gazette.

SATURDAY, AUGUST 9.

THE COLLEGE OF SURGEONS AND THE MEDICAL COUNCIL.

The Royal College of Surgeons deserves credit for the success with which it has pursued two objects which at first sight seem scarcely compatible. The first is, to establish the closest possible monopoly; the second, to have the largest possible constituency. On the one hand, to fence round the higher offices of the College with such restrictions as to make them virtually unattainable by any one save the Surgeons who are attached to London Hospitals; on the other, to attract the largest possible number of an inferior grade, whose contributions shall support that state and dignity at which they gaze across a gulf impossible to pass.

How well the College has succeeded in the first object it is superfluous to say. Curious it is that the Members and Fellows of the English College of Surgeons enjoy a constitution which might excite the admiration of the French or Austrian Government for its faculty of giving the faintest possible shadow of self-government, with none of the substance. The Council are secret and irresponsible in their proceedings. True, at the present time, they find themselves in a doubtful position, and they condescend to issue a circular to ask the opinions of their constituents, so that they may either fortify themselves with their approval if the answers be favourable, or have an excuse for retreat in the other case. But it is with an ill grace that people ask advice after they have acted.

But the College has succeeded well in the other part of its policy, and has secured an immense constituency. In most respects, it is highly to the credit of the English Practitioners that they have sought the diploma of the College in addition to the licence of the Hall. They were not compelled to do so in order to practise, nor yet in order to call themselves Surgeons. But the College was largely favoured by fortune. There is an inherent superiority in *Surgery—i.e.*, manual skill,—over the craft of the *Apothecary,—i.e.*, the sale of drugs. The title "Surgeon" is more respectable, and denotes a higher grade. But then it equally suited the idlest, most shallow, most empty pretenders to Medical practice. The College diploma was the cheapest in the United Kingdom. True, the fee of £22 is more than the six guineas which the "Hall" licence costs. But in every other respect—in time, in preliminary education, and amount of technical knowledge requisite to obtain it—the diploma of the College has, within our own generation, been immeasurably beneath that of the "Hall," and altogether one of the meanest Medical qualifications in the world. A man might obtain his diploma without being submitted to any test save a *vivâ voce* examination in Anatomy and Surgery, and with it might profess himself capable of entering into civil practice, and treating all the diseases of children and women.

True to its antecedents, the College is now again offering a cheap diploma. The bait now is the privilege of passing the first year of Medical study in apprenticeship. Formerly the outcry used to be raised against the Apothecaries that they were a trading body, and condemned their novices to a drudgery at the pestle and mortar. Time, as we hoped, had changed this. We had hoped that, under the *régime* of the Medical Council, the body of Medical Practitioners would advance rapidly and steadily in the path of professional and scientific advancement. As *traders* their game is lost. Henceforth they must be professional or nothing; but for this purpose an extended and continuous course of education is requisite. Instead of "leaving school" at 16 or 17, then going through the empirical routine of an apprenticeship, attending patients whose diseases he is not fitted to explore nor understand, and walking the Hospitals "to finish his studies," the Medical student should come fresh from school to the Medical College, where he may learn the alphabet of his Profession—Anatomy and Chemistry—before he presumes to practise it. After that, he should learn the business part; the mode in which professional knowledge is applied in actual life. For this purpose residence with a Practitioner is essential. The College of Surgeons by reinstating the old preliminary apprenticeship system, are holding out a bait to half-educated men. But by deliberately setting at naught the recommendations of the Medical Council, they stultify themselves and revive that ancient reign of night and chaos, from which we hoped that the Medical Council had come to deliver us.

THE NEW BYE-LAWS OF THE ROYAL COLLEGE OF PHYSICIANS.

Some time ago attention was called in this Journal to some probable changes in the examination of candidates for the licence of the Royal College of Physicians. The changes thus indicated have now become a *fait accompli*. The College has resumed its ancient right, has added a six months' course on the Principles and Practice of Surgery, and a six months' course of Clinical Surgery to the curriculum of education for its Licentiates, and is about to appoint three examiners in the Principles of Surgery, in Midwifery, and the diseases peculiar to women. The indissoluble union of Surgery with Medicine was fully recognised in the early constitution of the College and in a statute of Henry the Eighth's reign, which confirm, certain of its powers and privileges. It is there stated that,—

"Forasmuch as the science of Physic doth comprehend, include, and contain the knowledge of Surgery as a special member and part of the same; therefore be it enacted, that any of the same Company or Fellowship of Physicians, being able, chosen, and admitted by the said President and Fellowship of Physicians, may from time to time, as well within the City of London as elsewhere within this realm, practise and exercise the said science of Physic *in all and every his members and parts*, any act, statute, or provision made to the contrary notwithstanding."

In resuming the power which it has so long allowed to remain unexercised, the College only requires from candidates for its licence an equally extended qualification with the Scottish Universities, who have always examined applicants for Medical degrees in each of the three branches of Medicine. The probable bearing of this measure on the College of Surgeons has already been discussed in some quarters, and a rapid decadence of the latter Institution has been prophesied. It is scarcely necessary to say that all such speculations have no real foundation. The licence of the College is a licence to practise *Physic;* it is not a Surgical diploma. Surgical qualifications will continue to be obtained from Surgical corporations, and it will be long before the public will accept any other. The truth, however, is that Examining Bodies are beginning to understand that the healing art is one and indivisible, and although special corporations may give special prominence to one part rather than to another, they cannot in the present day be separated. The Physician who is unacquainted with the Principles of Surgery is only a half-

educated man, whilst to attempt to practise Surgery without a knowledge of the theory and practice of Medicine is to degrade the art, and to place it on a level with that of corn-cutters and bone-setters. We, therefore, simply recognise in the present step of the College of Physicians an attempt to extend Medical education in accordance with the requirements of the age and the broader views which characterise it. We should be heartily glad to see a single Faculty of Medicine in this country, and have before hinted that the new regulations of the College of Physicians may to a certain extent promote such a consummation. But a single Faculty—a British Academy of Medicine—must originate in a combination of the various interests, and not subserve the aggrandisement of one. It must never degenerate into a monopoly; and we fear that the day for such a change is yet far in the future. At present, no Medical man who desires to practise with credit every branch of his Profession would be satisfied with the sole qualification of any one Examining Board. If we could believe that the motives which have urged the College of Physicians to its present course have been of a lower kind than those we have indicated,—if they have been actuated by jealousy of the sister Corporations or the greed of examination fees,—most assuredly should we withhold our approval. The Society of Apothecaries, supplemented by the College of Surgeons, have, despite the glaring faults and shortcomings of the latter, together given England a body of the ablest and most highly educated Medical Practitioners which the world can show. It will be long before any other Examining Corporation can establish equal claims on public gratitude with the former of these bodies. We give the College of Physicians credit for higher motives, and congratulate them on an emancipation from a narrow exclusiveness which had well nigh left their Institution nothing but a historic name.

Amongst the other Bye-laws of the College is one regulating the election of Fellows. They are to be chosen from members of four years' standing who have distinguished themselves in the practice of Medicine, or in the pursuit of Medical or general science or literature. If the administration be equal to the intrinsic merit of this law we may hope to hear less of the expressions of discontent that generally follow the yearly publication of the list of new Fellows. Henceforth it will be the duty of the Council impartially to scrutinise and compare the Professional and literary claims of the members. If they are true to their trust, they will be entirely guided by the letter and spirit of their law, and admission to the highest Professional grade will never again depend on personal interest or the favour of a coterie.

The President is to be elected yearly, but we see that there is no law to prevent re-election; and we are informed that re-election, at all events for a few years, is expected to become the custom. In the Bye-laws relating to members, a more stringent clause has been introduced as to the admission by special grace of candidates who have attained the age of forty. For the future, it will be necessary that the candidate shall be able to show that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner. His testimonials are first to be examined by the Censors' Board, and they are then to be laid before the Fellows at a General Meeting, when it will be determined by ballot whether the candidate shall be admitted to examination. One point has struck us in looking over the subjects of examination for the licence. We believe that the examination at the College of Physicians is the only Medical examination in the three kingdoms in which the candidate's knowledge of Botany, Toxicology, and Medical Jurisprudence is not tested. At least no mention is made of these subjects. Is this an accidental omission, or does the College hold that they are unnecessary and ornamental accomplishments for the Practitioner of *Physic?*

THE LONDON MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The event of the present week is the Thirtieth Anniversary Meeting of the British Medical Association, which is now being held in London. Originally "Provincial" in name and constitution, and founded with a not unjustifiable intention of supporting the interests of the Provincial Practitioner, this Society now includes the most eminent Practitioners in every part of the Empire. It was felt, therefore, that London, though originally the only place where the Association could not meet, might at last be released from the ban; and it was proposed by Dr. Quain that the year of the International Exhibition should be the time. Hence the large and brilliant meeting at the Royal College of Physicians, which learned body most cordially threw open their building for the reception of their country friends.

Several members of the Association expressed the desire that their meeting should be solemnly inaugurated by a religious service; but the proposition had not been brought forward formally till too late. At the meeting on Thursday, August 7, Dr. W. Ogle, of Derby, gave notice of a motion, which we hope will be received favourably, to establish such a service as a rule for the future.

The number of members who have attended is about 350, the greater part of whom were present on Tuesday to hear the Inaugural Address of Dr. Burrows. Amongst them were the well-known names of Husband, of York; Bottomley, of Croydon; Cookworthy, of Plymouth; Bailey, of Thetford; W. Ogle, of Derby; Vose, Waters, and Inman, of Liverpool; Bell, Fletcher, Oliver, Pemberton, of Birmingham; Hughes Bennett, of Edinburgh; Crowfoot, of Beccles; Crompton, and Southam, of Manchester; Radclyffe Hall, and Evanson, of Torquay; Morris, of Spalding; Rumsey, of Cheltenham; Ranking, of Norwich; C. M. Burnett, of Alton; Sankey, of Dover; Ray, Street, and Webster, of Dulwich; Cooper, of Hull; Drage, of Hatfield; Paget, of Leicester; Humphry, of Cambridge; L. Roberts, of Manchester; Bree, of Stowmarket; besides Professor Retzius; W. B. Costello; Kennedy, of Dublin; Ward, of Philadelphia; and Ephraim Cutter.

The Address of Dr. Burrows was listened to with profound attention, and was received with satisfaction by every member present, except some Councillors of the College of Surgeons. At its termination there was an attempt by Mr. Webber to engage the Association in a dispute, of which we have had too much already. We are quite sure that the Council of the British Medical Association will not constitute itself as a Court of Appeal for the Queen's Bench.

The College of Surgeons, for the first time in its existence, invited its Members and Fellows to meet the Members of the Association at a conversazione on Tuesday evening, of which we give an account elsewhere.

On Wednesday morning, at 9.30, the meeting of the New Sydenham Society was held in the College Library. The adoption of the Report was postponed, in order to give time for the consideration of a complaint by Dr. Thudichum, that the Council, by publishing Neubauer and Vogel's work on the Urine, were inflicting an injury on him as the author of a rival and better work. The matter was brought before a larger meeting on Thursday evening, and will, we believe, be amicably settled.

Professor Walshe's address on Wednesday, will be read with profound attention, but we must add a passing word of praise on the audible, emphatic, and animated delivery, which completely carried the audience with the orator.

On Wednesday evening the College of Physicians gave another brilliant and crowded conversazione.

On Thusday the great event was Professor Paget's oration; admirably complimentary to that of Professor Walshe. The

former treating of the philosophical basis, the latter of the practical working of Medicine.

Altogether, the week has been a most animated and happy one. Men's minds have been enlarged, friendships revived, differences forgotten in the universal flow of hospitality and courtesy. We cordially wish prosperity to the British Medical Association. Whether or not the vast machinery at its command might be handled so as to produce larger results, whether, for instance, scientific investigations into the facts of daily life, such as were proposed by Dr. Handfield Jones, might not absorb some portion of its funds, is a question for the members to settle at their own will and pleasure. Of the moral results of meetings like these there can be no question. Prejudices, party feelings, jealousies, the malign influences of close and unscrupulous corporations, if such there be, brooding malignantly over the future of Physic, all tend to disperse like mists under the sunshine of honest, hearty, outspoken conference. The moral and social status of the Profession may be raised beyond measure by a wise, liberal, and clear-sighted administration. The Association is as yet in its infancy. As it is, the venerable Founder (whose hale looks promise that he shall see his own offspring attain a yet more vigorous and complete development), the Council, Secretaries, and Executive may reflect with satisfaction that their first London meeting has left little to be desired.

MEDICAL EDUCATION IN DUBLIN.

(*From a Correspondent.*)

In considering the cost in time and money of Medical and Surgical Education in Dublin, I shall endeavour to lay before your readers the expense of each separately, as well as that of residence in the Irish capital during the necessary periods. I shall also give such information as may enable the student to calculate, as nearly as possible, the expenditure required to obtain a "double qualification."

The most ancient of our Licensing Bodies is the University of Dublin (Trinity College), which confers the degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery. It also grants licences in Medicine and Surgery. All these degrees and licences are recognised by the Act, 21 and 22 Vict. c. 99, as qualifications for Medical and Surgical Practitioners.

The *degrees* above enumerated can be obtained only by students who are Bachelors of Arts. The *licences* are granted to students who have completed one year in Arts, are matriculated in Medicine, have completed the Professional curricula, and passed the required examinations.

The fees for lectures, dissections, and Hospital attendance required for the degree of Bachelor of Medicine, amount to about £46. The fees for the degree itself amount to £10. In addition the candidate must possess the degree of A.B., costing £84, spread over a period of four years. As I shall hereafter show, the cost of board and lodging in Dublin may be taken at a minimum of £3 10s. per month, which for four sessions of nine months each, will amount to £126. Total cost of the degree of M.B., including board and lodging, £266.

The expense of residence within the walls of Trinity College will, however, be somewhat more than we have here set down. The annual rent of rooms in College ranges from £2 to £16; but as two students almost always reside together, each paying only half rent, we may look upon £6 per annum as a fair average. The fixed charge for *commons*, or the College dinner, is 5s. per week; the variable part of the commons' charge during term is equal to about as much more; the personal expenses of a student in residence, independently of the charge for rooms and commons, are calculated in the Dublin University Calendar as not necessarily exceeding 15s. per week. Hence, we may calculate the total expenses of residence in Trinity College at £5 10s. per month, or about £2 more than we have deduced as the monthly expenses of a Medical student resident in the city.

The degree of Doctor of Medicine, for which there is no further examination, may be taken by Bachelors of Medicine of at least three years' standing, or by candidates who have been for three years qualified to take the degree of M.B. Total amount of fees for this degree, £12. Total cost of the M.D. degree, including maintenance as above, £278.

The Professional education of a Master in Surgery will cost about £78, to this is to be added the amount of the fees for the degree = £10, and the expense of the A.B. degree as before = £84, and of maintenance = £126. Total, £298. If the candidate be already a Bachelor of Medicine, he will, of course, save the cost of the Professional lectures he has before taken out, and which are required also for the Ch.M., amounting to about £33 12s., and also that of the degree of A.B.

The education of a Licentiate in Medicine will amount, including the fees for the licence and for one year in Arts, to about £65 3s.; that of a Licentiate in Surgery to £106 5s.

Much has of late years been done by the regulations of the University of Dublin, to facilitate the attainment by the Medical student of a full University education. Thus it has recently been enacted by the Board of Trinity College, that Medical or Surgical students, being junior or senior sophisters on the College books, and in actual attendance on the full courses of the Medical session necessary for completing an *Annus Medicus*, shall be exempted from the classics of the junior sophister year, and from two of the three optional courses (Mathematical Physics, Experimental Physics, and Classics) of the senior sophister year. The degree of Bachelor of Medicine can now be taken at the same commencement at which the student receives the degree of Bachelor of Arts, instead of not until three years later as formerly. Lastly, any of the Professional courses may now be attended at any Medical School in Dublin recognised by the Provost and Senior Fellows, provided the candidate have kept one *Annus Medicus* in the School of Physic.

Two Medical scholarships of £20 per annum each, tenable for two years, are annually given by competition in the University; in addition, two Medical School exhibitions are given at the close of the Winter Session by the Professors of the University School. Numerous scholarships and exhibitions in the general Arts course are also open to the competition of the Medical student, and many who were afterwards distinguished in the Profession, among whom we may mention Drs. Cusack, Porter, Apjohn, Law, Benson, Alcock, and Montgomery, held classical scholarships in Trinity College.

The cost of lectures, dissections, and Hospital attendances required by the Dublin College of Surgeons is altogether about £85; that of the curriculum of the London College is not more than £60. To these sums is, of course, to be added the fee for the licence, amounting in the former case to £26 5s., in the latter to £22. The tutorial fees, which are optional with the student, amount in Dublin to £15 15s. for all Surgical Colleges, irrespective of time. Another mode of entering the Profession is by apprenticeship to a Surgeon, for which a fee varying from £100 to £150 is paid. This covers all Professional expenses with the exception of the fee for the diploma or degree. The special advantage obtained by this mode is that of supervision and direction during the period of education. When the student has acquired his Surgical diploma, he will, on presenting the same, be admitted to examination by the King and Queen's College of Physicians, where he can obtain a Medical qualification for the fee of £15 15s. The same curriculum will be sufficient for the Apothecaries' Hall, except that the candidate for the licence of that body will be required to produce proof of having served an apprenticeship of three years to a duly-qualified

Apothecary. The fee for examination at the Hall is only a few shillings. A premium of £100 is usually paid with an apprentice, which covers board and lodging during the period of apprenticeship.

In the departments of Anatomy and Midwifery, particularly, the character of the Dublin School has always stood remarkably high. This is, no doubt, in a great measure owing to the peculiar facilities afforded in the Irish metropolis for the practical study of these branches of Medical science. With respect to Anatomy, the supply of subjects arising, under the direction of the Inspector of Anatomy, from the unclaimed bodies from the Hospitals and Poorhouses, has always been easy and abundant. In Midwifery, the advantages afforded by the great Lying-in Hospital are such as few places possess. As to the excellence of the School of Dublin in these respects, with the admirable system of clinical instruction pursued in the several Hospitals of the city, a large amount of *foreign* testimony was laid, some years ago, before the Select Committee of the House of Commons on Dublin Hospitals, and may be found in the "Blue Book" ordered to be printed, June 29, 1854, pp. 194, *et seq.*

Dublin presents also many advantages to the Medical student with respect to cheapness of living. Owing to its maritime situation, and to the fact of its being the capital of a country depending more upon agriculture than upon manufactures, many of the necessaries of life are comparatively cheap. Fish, coals, and milk, for example, are particularly reasonable. Hence it is that a young man can there lodge and board respectably at from £3 10s. to £5 per month. Much will, of course, depend upon the habits of life of each particular student; but the above is a fair average. Obvious advantages are gained by two clubbing together; but it has been found highly objectionable to congregate a large number of pupils in one house: in such a community the idle generally get the upper hand, and are too apt to lead the better-disposed astray. If the student or his friends prefer it, he can board and lodge in a Professor's house, being treated as one of the family, for £5 for each month actually spent in the house. As the student's year is only nine months, and this term is still further reduced by the Christmas, Easter, and Whitsuntide recesses, the period to be annually paid for amounts to little more than seven months; but to leave a margin for travelling and other incidental expenses, it is better to make the calculation for the entire period of nine months.

The fee for the course of practical instruction at the Dublin Lying-in Hospital, which extends over a period of six months, is £10 to extern, and £20 to intern pupils. At the termination of the course an examination is held by the Master and the Assistant-Physicians, and the pupil, if found competent, receives a diploma, which is, however, not admitted to registration under the Medical Act. Within the last few years a second Midwifery Hospital, the "Coombe," situated in one of the most populous districts on the south side of the city, has been sanctioned by Government, from which it receives an annual grant of £200. It is attended by a very large class of students, and its practice being principally extern and among the poorer classes, it is well adapted for the education of the General Practitioner, who thus acquires by experience the art of meeting dangerous emergencies with very limited resources. The fee for attendance on this Hospital, including clinical lectures, is £4 4s.

We may conclude by giving a few examples of the cost of a double qualification. Probably the most desirable qualification of this nature is that which combines the licence of the College of Surgeons with a Medical degree from Trinity College, involving as it does a full University Education.

We have seen that the lectures, etc., required for the Dublin College of Surgeons cost about £85, but of these some forty pounds' worth may have been taken for the M.B. degree. We shall therefore set them down at £45 0 0

Cost of Diploma	26	5	0
Tutorial fees (almost invariably incurred)	15	15	0
Board and lodging during Four Sessions	126	0	0
	£213	0	0

Cost of A.B. degree	£84	0	0
Lectures, etc., for M.B. degree(a)	46	0	0
Fees for degree	10	0	0
	£140	0	0

Cost of joint qualification £353 0 0

But as it will be scarcely possible to accomplish the triple course in Arts, Medicine, and Surgery within four years, this expense may be increased by an additional charge for board and lodging.

A joint qualification from the College of Physicians and College of Surgeons will, of course, be much cheaper than the foregoing. We may set it down as:—

Cost of College of Surgeons diploma, as above, with the addition of £40 for lectures there credited to the M.B. course	£253	0	0
Diploma of the College of Physicians	15	15	0
Cost of joint qualification	£268	15	0
Cost of qualifying as Surgeon-Apothecary:—			
Cost of Surgical diploma as above	253	0	0
Apprentice fee	100	0	0
Total	£353	0	0

THE WEEK.

DR. PHIPSON ON THE PHILOSOPHY OF PHOSPHORESCENCE.

Of all physical phenomena, that peculiar emission of light called *phosphorescence*, which manifests itself, in certain circumstances, in minerals, vegetables, and animals, is perhaps less known than any other. Since the time of Fabricius *ab* Aquapendente, who first called attention, in 1592, to the peculiar light emitted by the flesh of dead animals, a considerable number of scientific inquirers have been led to study the mysterious class of facts now classed as phosphorescence. It is true that Aristotle distinctly speaks of the light of glow-worms and of the phosphorescence of putrescent substances; that Pliny was acquainted with the luminous properties of certain *Medusæ*, and had seen dead *Pholas* shine in the mouths of those who ate them. But it was not until Fabricius *ab* Aquapendente published his observations, and after Cascariolo, the cobbler of Bologna, had discovered the famous solar-phosphorus, or Bologna-stone, that inquiry into these phenomena was fairly set on foot. The number of well observed cases of phosphoric phenomena which we possess at the present day is very considerable. In the mineral world we find phosphorescence induced by insolation, or exposure to the light of the sun, by heat, by friction, by electricity, by cleavage and crystallisation, and by chemical change. Meteorologists are acquainted with numerous cases of luminous rain, snow, and hail; with dry fogs which emit so much phosphoric light that a traveller sees his way through them without the light of the moon, with luminous water-spouts, and several other extremely interesting phenomena. In the vegetable world we find phosphoric properties developed to a high degree in certain *fungi* which emit phosphoric light whilst living; for instance, by the famous *Agaricus olearius*, which grows at the foot of the olive-trees in Italy; by one or two species of *Rhizomorpha*, which vegetate in damp mines, etc.; also in phanerogamic plants, such as the *Euphorbia phosphorea*, the juice of which leaves a vivid phosphorescence on paper over which the broken stem of the plant is passed. In the animal world, from *Infusoria*

(a) One course with each of the four University Professors is free of expense to students in Arts.

and *Rhizopods* to *Insects* and *Myriapods*, there is scarcely a group of animals that does not possess numerous individuals endowed with phosphoric powers. The minute rhizopod, *Noctiluca miliaris*, illuminates the waters of our English Channel, each wave of which contains myriads upon myriads of these highly luminous animalculæ. Ehrenberg has described upwards of one hundred species of phosphorescent infusoria, and numerous *Medusæ*, *Annelids*, *Mollusca*, *Crustacea*, etc., have been added to the list by other observers. The common earth-worm, *Lumbricus*, is highly phosphorescent in October during its period of coupling, and the *Pyrosoma Atlantica* and *Salpæ* among the *Tunicata*, swim adhering together by thousands on the surface of the ocean in warm latitudes, illuminating its waters with a pale phosphoric luminosity. Among insects, the *Lampyridæ*, including our own glow-worm, the *Elateridæ*, the *Fulgora*, furnish a vast and interesting field of study. But phosphorescence does not stop here: we possess certain well authenticated cases of emission of light from the body of superior animals, even in man himself. Not only does the subject of phosphorescence furnish us with innumerable data calculated to elucidate certain questions concerning the theory of light, and the molecular constitution of matter, but it is easy to show that these researches are not devoid of practical utility. The most powerful light hitherto produced by man, the Drummond or lime-light, is due to phosphorescence. This vivid light, which the eye cannot support, is not owing to lime heated to a white heat, but to phosphorescence when lime is scattered over borax and exposed to the flame of the blow-pipe, it glows with a vivid phosphoric light long before the borax melts, and the fusion of this salt occurs at a dull red heat. The wonderful and useful element, *Phosphorus* was discovered by Brandt, an alchemist of Hamburg, in 1669, by means of its peculiar luminosity in the dark. This phosphorescence is owing to oxydation, and thereby resembles that which is observed on a freshly-cut piece of *potassium* or *sodium*, which also shine in contact with the air at ordinary temperatures; whilst *arsenic*, *tellurium*, *selenium*, and *sulphur* require a slight elevation of temperature to develope phosphoric light in the same circumstances. The phosphorescence of gases under the influence of an electric discharge is a recent contribution to this class of physical facts; and we have been lately furnished with new data concerning phosphorescence by heat, and the emission of light by substances whilst crystallising. In fact, we may assert that whenever a substance, either mineral, vegetable, or animal, is solicited by any of the so-called physical "forces," it is capable, in certain circumstances, of developing phosphorescence, even when the force in question be light itself. In the case of the Bologna-stone, for instance, exposure to the rays of the sun induces a molecular vibration, and when the stone is removed to a dark place it glows with phosphorescence. In this case it does not give back the same quantity of light which it has received, but a quantity equivalent to the vibration induced in it by insolation. When fluor-spar, heated gently upon a sheet of platinum, glows with phosphoric light, the light produced is not directly connected with the heat, but is equivalent to the molecular change induced by the elevation of temperature. In substances which change their chemical properties when under the influence of heat, and are at the same time phosphorescent, such as the sesquioxides of zirconium, of chromium, the minerals gadolinite, samarskite, etc., we observe sometimes an augmentation of specific gravity, and sometimes a diminution. In animals we invariably find an organ destined by nature, and admirably fitted for the production of phosphoric light. This appears to be as true for the microscopic *Noctiluca* and minute *Annelids*, as it is of the glowworm or the firefly. But, in spite of these numerous data, gained by long and obstinate researches, there exists yet many cases of phosphorescence in the organic kingdom, which require further investigation before we can hope to solve them. If our readers feel inclined to pursue the investigation, and for that purpose to furnish themselves with such facts as are already established, we may refer them to a little work by Dr. Phipson, (a) a very industrious experimental chemist, who has hitherto sent his contributions to foreign journals, but will soon be better known by the scientific world at home.

THE PHILOSOPHY OF CHILD MURDER.

At the Lewes Assizes last week, three cases of child murder —or attempt at it—by women were tried in succession, which form a useful study. In one case, a married woman, aged 33, threw her child, an infant of a year old, out of the window. The child was injured, but recovered. The mother had been previously confined as a lunatic. She was subject to lunacy during pregnancy, and was then pregnant and deranged. The Judge directed an acquittal on the ground that the patient being clearly out of her mind, could not have had the *intent* charged. In the next case, Rhoda Clark, a single woman, was indicted for attempting to drown herself and two children. She was living at Cuckfield with an ill-conditioned man, by whom she had these children. At ten o'clock one night, under the influence of drink, she set out declaring that she would drown herself and the children. A boy saw her walk into a pond, with the children (one eighteen months, the other four years), and put them into the water. The prisoner's defence was that she was drunk at the time, and had no recollection of being in the pond. The learned Judge told the jury that they could not convict unless the prisoner had a reasonable mind, and a real intent to drown the children; and if she was merely in a drunken fit, and had no real or rational intention to do the act, she could not be convicted upon this charge; and the witnesses seemed to think that this was so. The jury returned a verdict of "Not Guilty." In the third case, a poor young woman was arraigned for the murder of her child, aged about two and a-half years. She left Ticehurst Workhouse on the evening of April 8, with her two illegitimate children, the youngest a mere infant, and wandered about the country till next day, when one of the children was found drowned in a pond. The prisoner when called upon for her defence, said, in a voice too weak to be heard except by the gaoler, who repeated them, the following words:—

"I followed the child's father to see if he would give me money to go home to my other children. The reason I went to the pond was that the baby's things were dirty. I went to the pond to wash them. Something fell into the water. I thought at first it was a stone; I looked up and saw it was my child. I got a stick out of the hedge to try to reach him and get him out. I cannot remember anything else."

The learned Judge summed up strongly in the poor girl's favour, commenting upon the want of evidence as to her having *wilfully* put the child into the pond. To the surprise of every one, a verdict of "Guilty" was returned, and the sentence of death was passed *pro formâ* upon the convulsed and shrieking prisoner, although the Judge promised that she should be recommended to mercy.

A NICE PATIENT.

At the Exeter Assizes, on August 1, the executors of a Mr. Parham, deceased, brought an action against Dr. Ashford, of Torquay, to recover the value of a promissory note for £347 15s., which he had given to the deceased. To this Dr. Ashford pleaded a set-off for Medical attendance, for which he claimed £647 11s. 7d.

"Mr. Parham had been a barrister residing at Plymouth. In 1846 he was appointed Judge of a County Court in Worcestershire. The defendant was introduced to him in the year 1839. Mr. Parham was a confirmed invalid; he wa

(a) "Phosphorescence; or, the Spontaneous Emission of Light by Minerals, Plants, and Animals." By T. L. Phipson, Doctor in Science of the University of Brussels, &c. Lovell Reeve and Co.

of a most nervous and irritable disposition; he was penurious to the last degree. He did not pay his servants' wages. He would not pay his tradesmen's bills, but would give them a small sum on account. He, in fact, hated to part with a shilling. His state of health seemed to occupy all his thoughts. Dr. Ashford at that time was in practice in London. In 1852 Mr. Parham suggested to Dr. Ashford that he should go and settle in Worcestershire. Accordingly Dr. Ashford went to Droitwich, and afterwards to Wolverhampton, and during the time he was there he constantly attended Mr. Parham. In 1857 Dr. Ashford went to reside at Torquay. In 1858 Mr. Parham had a paralytic stroke, and he then sent to Dr. Ashford to come and see him at Worcester. Dr. Ashford went, and stayed with him fourteen days at his request. Mr. Parham had been recommended to go abroad. He said he should like Dr. Ashford to accompany him for two reasons—first, because he could speak German, and, secondly, because he could take care of him. Dr. Ashford accompanied him to Paris and Germany. Mr. Parham was then in such a state that he would ask Dr. Ashford ten times a-day if he thought he was dying. He drank the waters at Spa. Dr. Ashford had continual consultation with German Physicians. Mr. Parham would talk about his health all day long, and would ask Dr. Ashford to feel his pulse and look at his tongue while at the dinner-table. When they returned to England Mr. Parham went to Ashburton, and then Dr. Ashford went from Torquay to visit him. On several other occasions Dr. Ashford went to Worcester. At last, in the autumn of 1861, Mr. Parham sent to ask Dr. Ashford to take a house for him at Torquay, which he did. He went to Torquay in an invalid carriage, and Dr. Ashford carried him in his arms into the house. Dr. Ashford then became his sole Medical attendant, performing all kinds of disagreeable offices, until he died on August 16, 1861. Dr. Ashford sent in his account to the plaintiffs, charging three guineas a-day for attendance, and amounting altogether to £647 11s. 7d., when the residuary legatees refused to pay it. Mr. Parham was vain as well as penurious. He would prefer to give whiskey to wine. He would walk his legs off in London rather than hire a cab. If Dr. Arnold suggested that they should have a cab, Mr. Parham would say to him that he was devilish ready to ride at another person's expense. When they went abroad Mr. Parham paid all the expenses, but insisted upon their travelling in a third-class carriage. When he used to go to Worcester he had two patients at Torquay. There were twenty-four doctors at Torquay. Mr. Cooksey was Mr. Parham's Medical attendant at Worcester. Had a consultation with him upon the case. Never made a charge to Mr. Parham. Charged one guinea a visit from the time he came to Torquay until his death. Went from Torquay to Worcester at the request of Mr. Parham to dispose of his house there. Charged three guineas a-day for the time he was so engaged. Did not know of any Physician making such a charge for such a business. The contention on the part of the plaintiffs was that the defendant had never been professionally employed, and that it was a friendly arrangement between the parties; that the defendant never thought of making any charge until after the death of Mr. Parham. The very acts done by Dr. Ashford showed that fact, because a Physician would never have dreamt of making a charge for disposing of the house of a patient. Mr. Parham was always attended by Medical men, and the defendant merely came as a friend. Even if the jury thought the defendant had acted professionally, the charge would only have been one guinea a-day. The learned Judge having summed up, the jury gave a verdict for the defendant."

The moral is, that a Medical man should be cautious before he makes himself a hack to an old hypochondriac.

GETTING UP AN HOSPITAL.

The good people at Guildford have determined on having a County Hospital. No doubt they have plenty of material around them in the way of sickness and suffering to be relieved. Although Guy's and St. Thomas's are in the same county, they have hitherto existed mainly for the Metropolis, and the present phase of public opinion is in favour of Hospitals situated on breezy downs far away from the turmoil and impurities of urban life. Nothing could be better, we are told, than the site they propose for the new building, and they are appealing far and near for the means to carry out their project. But if letters and articles in the local papers are to be believed, grave exception may be taken to the mode in which they are setting about their work and applying their funds, actual and prospective. Jobbery is not peculiar to the Horse Guards, Cathedral cloisters, nor to Parliamentray Committees. The moment a number of benevolent gentlemen meet together, ostensibly for the purest public purpose, actuated apparently by the highest motives, with nothing individually to gain,—it is ten to one the first thing they do is to perpetrate some gross piece of place-making. The promised capital of the Guildford Hospital is said to be £5000, and already the Committee are spending at the rate of £750 a year on provisional and travelling secretaries. The former draws three guineas a week, the latter a salary of £300 a year and travelling expenses, which may be calculated at £300 more. The travelling secretary, who is a brother-in-law of a prominent member of the Committee, has been appointed fifty-eight days. In this time he has remitted £500 to the Treasurer. If his salary and expenses be estimated at £90, his commission as a collector will amount to 18 per cent. These figures, if correctly stated, require no comment. Such things make people shut up their hearts and purses, and toss aside unread all appeals from Medical charities.

ALLEGED DEATH FROM WANT OF MEDICAL ATTENDANCE.

A very painful case has lately occurred at Exeter, and has terminated in a Coroner's inquest and a censure by the jury on three Medical men of that city. A single woman, named Catherine Bray, aged 32, seven months pregnant, was attacked with convulsions on the evening of Monday, July 21. She was first seen by a midwife. Her mother then applied to Mr. Hunt, a Surgeon, who referred her to the Parish Doctor. At four o'clock on Tuesday morning the mother applied to Mr. Arthur Cumming, one of the Surgeons of the Corporation of the Poor, who told her she was not in his district. She then went to Mr. J. S. Perkins, the Parish Surgeon, rang his night-bell four times, but did not succeed in awaking him. She then went back to Mr. Hunt, but he reiterated, through his servant, his former answer. At six o'clock she went to Mr. Perkins again, who gave her some medicine and directions, and told her to come again and let him know how her daughter was at nine o'clock. At nine she sent an urgent message by a boy, requesting Mr. Perkins to come or he might not see her daughter alive. Mr. Perkins, however, asserts that the message he received was that the patient was "much the same." He also states that he was not informed of her pregnancy. He went to see her at between two and three in the afternoon, but she had died at twelve. The post-mortem examination revealed a large effusion of blood on the surface of the left hemisphere. Mr. Perkins, although he had never seen the patient alive, offered to give a certificate of death. On a careful review of the evidence, although we cannot say we are surprised at the Coroner's charge, indiscriminately condemning the conduct of the Medical men, or the censure which accompanied the verdict of the jury, we question its justice. Neither Mr. Hunt nor Mr. Cumming were bound to attend the case. Had either of these gentlemen visited the patient it would have been an act of charity, not of obligation. Mr. Perkins's conduct is certainly open to censure. Not to speak of his long delay in visiting the patient, which his evidence partly accounted for, the offering and signing a certificate of death without having seen the woman alive cannot be justified. Yet, that a pregnant woman should be allowed to be for many hours in convulsions, unvisited by any Medical man, although three had been asked to see her, and should ultimately die without being seen, is to say the least, an unprecedented occurrence. Some months ago we chronicled some such case as it occurred in the back settlements of the Cape of Good Hope. We venture to say again now what we said then. Medical men are overworked and

illpaid; but how much better the expenditure of half an hour in a gratuitous visit, than to have to bear the ignorant sarcasms of a Jury. In justice to Mr. Hunt we publish a letter he has addressed to one of the Exeter papers:—

"*To the Editor of the Exeter and Plymouth Gazette.*

"St. Sidwell's, Exeter, July 30, 1862.

"Sir,—At an inquest held in Paris-street, on Saturday last, the jury, under the direction of the Coroner, took upon themselves to pass a vote of censure on my conduct, simply because I declined to undertake a pauper case where midwifery was in question; a case which probably would have kept me out the whole night, with no chance whatever of any remuneration, and that too in a city where there are four paid Medical officers of the Corporation of the Poor. To one of these I at once referred the patient's mother, and it is clearly no fault of mine f she allowed some hours to elapse before she attempted to obtain his services; or that when she had endeavoured to do so, she was not successful.

"The Coroner says, 'I think Mr. Hunt very much to blame for not going; there is no legal obligation, but there is a moral one;' on which one of the jurors said, 'Then there ought to be a legal obligation.' Now consider, Sir, the position of a Medical man who was compelled by law to obey at all hours the summons of any and every one who might choose to fetch him. In such a case the poor, no doubt, would have their favourite, and were he obliged to obey every summons, and had no power of declining, I take it he would be very little spared. In a city containing so large a population of poor, his life would be no enviable one, his chance of a night's rest would be small indeed; in vain would he retire to bed, to be knocked up again in the course of the night would be pretty certain; and his own poor life would soon be worn out, and that too without remuneration; for should he have been fortunate enough to obtain a higher class of patients he would be precluded from reaping the benefit, inasmuch as the numerous calls, at untimely hours, he would be sure to get from the poorer class, would quite exhaust his energies, and render him incapable of giving a proper degree of attention to his remunerating patients.

"This is the *régime* under which the Coroner and the jury assembled in Paris-street would like to place the Medical Profession. Now, I for one, Sir, protest against it; and I ask how it can be shown to be my duty to attend the sick poor of St. Sidwell's, for whom already a paid Medical officer is provided? I distinctly deny that it is so, and that by declining to go to this case, I merely exercised that liberty of action which I do not feel disposed to surrender at the dictation of Mr. Coroner Hooper.

"I remain, Sir, your obedient servant,

"W. C. Hunt."

THE HARTLEY INSTITUTION, SOUTHAMPTON.

The office of Curator of this Institution, which, as our readers may be aware, has been founded by a munificent legacy from a gentleman of the name of Hartley, for the promotion of science and literature in the town of Southampton, has been recently filled by the election of Dr. Francis T. Bond, late Professor of Chemistry and Dean of the Faculty in Queen's College, Birmingham. There were fifty-six candidates. The Institution will be formally opened by Lord Palmerston in the course of the ensuing month.

THE CONVICT FLOOD.

We will venture to add ours to the many voices now pleading for mercy for the unfortunate soldier, Flood, who was convicted and sentenced to death at Lewes on Monday, for the murder of his comrade, John O'Dea, at Brighton, on the 8th of June last. It appears, from undisputed testimony, that the unfortunate convict was a quiet, inoffensive man, whose good conduct was marked by the "stripe," whilst the deceased was an ill-conditioned, quarrelsome bully. The convict had evidently been worried, tormented, and exasperated beyond endurance by a system of persecution mixed with brutality. At last, provoked beyond measure, and maddened by rum, he shot his persecutor. God forbid that we should be supposed to underrate the value of human life, or palliate the guilt of murder; but surely this crime is not to be compared with that of the ruffian who lies waiting for the prey to his lust or his cupidity, and takes away life without remorse. We do hope that poor Flood's life may be spared for repentance and future good conduct.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

The meetings of the Association this year were held in the Library of the Royal College of Physicians, under the Presidency of Dr. Burrows. They occupied four days, viz., Tuesday, Wednesday, Thursday, and Friday, August 5, 6, 7, and 8.

FIRST DAY, TUESDAY, August 5, 3 P.M.

On the motion of Sir Charles Hastings, Dr. Lochee, the President for last year, took the Chair.

Dr. Lochee said that he had no more prominent duty than to resign in a becoming manner the Presidency of the Association which he had held for the last year, and also, as a formal act, to introduce to the meeting of the Association his successor, Dr. Burrows. He (Dr. Burrows) was so well known, so much distinguished by his long office and useful counsels in this College, as well as held in great esteem by the Profession, that it was not needful to dwell on his qualification for the office. He wished, however, in conclusion, to express a hope that his successor would receive the same courtesy and support in his office which he (Dr. Lochee) now so thankfully acknowledged as having been accorded to him.

Dr. Burrows said that, in taking the Chair after so able a President as Dr. Lochee, he felt sensible of the great responsibility of his position. It was impossible not to feel the task of addressing the members of the British Medical Association, and of satisfying this reasonable expectation a hard one to perform. It would be in unison with the feelings of all to congratulate the members on assembling within the time-honoured walls of the College of Physicians. The fact that the British Medical Association assembled in this Library showed that they were appreciated by gentlemen who from time and tradition were slow in admitting new claims. He should be wanting, also, if he did not in this prominent position express his anxious desire to exert himself so as to make this meeting a successful one,—to help to carry on the two great objects of the Association, the elevation of the social rank of the Profession, and the advancement of Medical science. It would have been scarcely possible to have undertaken the anxious duties of his Presidency had it not been for the support of the Council of the Metropolitan branch and the indefatigable exertions of the Secretary, and especially of Dr. Stewart. In the name of the Fellows of the Royal College of Physicians he cordially welcomed the Members of the Association. He felt sure that they had the greatest pleasure in reciprocating the kindness they had often had the good fortune to receive at the Annual Meetings in the Provinces. The annual meetings had always been satisfactory in every way. It might have been thought that there was not in the smaller provincial towns enough of objects of interest to fill the leisure time of the members. This, however, had never been the case. In the Metropolis no such thought could be entertained. Here, on the contrary, the fear was that the attractions would be too great. *Vis unita fortior* was never more true than in reference to meetings of this kind. Some institutions derived their influence from time and from great names; others from the power conferred on them by the Legislature. But the British Association owed its great influence strictly to voluntary effort and to the unanimity and talent of its members. The display at the Great Exhibition of natural and artificial objects, collected from all parts of the world, would offer a great attraction for the provincial members. May we not hope that this gathering together of the products of the inventive genius and the labour of men of all countries, may tend not only to the increase and improvement in manufactures, and to extension of commerce, but conduce also to the increase of mutual goodwill, showing that every nation has its own peculiar talents, that we may each of us by interchange become wiser and better. But if such results follow from the meeting

of foreigners, may we not hope from meetings amongst ourselves, of one language and all of one Profession, the greatest good? Generally, the members of our Profession are widely separated, but now they are brought together to one centre of attraction. This Association, over which he had the honour to preside, was founded thirty years ago by Sir Charles Hastings. At first it was confined to the Provinces. It was instituted to advance Medical science and to maintain the honour and dignity of the Profession. After twenty years of great success, it was determined to extend the operation of the Society and to include the Metropolis. This necessitated a change of title, and the Provincial Medical Association became the British Medical Association. It from the first has been strictly catholic; a Medical institution embracing all grades of the Profession, liberal in its feelings, free from all class and corporate prejudices. Such, then, are briefly the objects of the Association, and inquiry would show that their objects had been well carried out. At one time the Association published *Transactions*, which contained many papers of peculiar value, generally by Provincial Practitioners. Now, the Journal is the recognised organ of the Association,—formerly Provincial, now edited and published in the Metropolis, and competing with the other Medical periodicals. During the past year the Journal had been conducted with signal ability, and with great independence and spirit. Not only had it published numerous lectures and essays by the most talented members of the Profession, but had nobly and fearlessly vindicated professional principles. The Annual Meetings of the Association had stimulated special inquiries, and numerous reports on special subjects had been published in the Journal. He looked forward with the greatest satisfaction to the reports on Physiology, Medicine, and Surgery to be read at this meeting. When persons in different countries are working at subjects in Medical science, it is of great importance that a general *résumé* of what had been done in the various departments should be laid before the Profession. This would, he felt sure, be ably done in the reports by Dr. Walshe, Dr. Sharpey, and Mr. Paget. The Association, then, as the above shows, is not forgetful of science. The members in the Metropolis might not attend the annual meetings for this purpose, but members in rural districts and small provincial towns could scarcely fail to appreciate the advantages of these meetings. Practitioners in rural districts have little opportunity of comparing notes with one another, often being scattered at great distances from one another. The branch meetings of the Association, however, could not fail to induce members to observe cases carefully, to report them accurately, and to increase one another's knowledge by preparing papers to be read before the meetings, each member profiting by the individual exertion of his fellows. The intercourse of man with man improves both outwardly and inwardly, making man higher in the order of being. The second great object, but not the less important, was to uphold the dignity and to improve the general status of the Profession. The Founder might now look back with pride at the results obtained from an Association established on these principles. Never was such an independent body more required in the Profession than now, in the midst of great increase of learning and great changes, to add to the welfare of man and to uphold the dignity of the Profession. The influence of the Association had been felt in the Legislature. He would repeat that such an institution as this Association was now urgently required. It would be admitted by all that institutions which are sufficient in one state of civilisation are not equal to the wants of another, and that as circumstances change they require remodelling. Just as in the infancy of trade certain laws were essential, which, when trade became more developed, acted as shackles and fetters to industry and enterprise. In the infancy of England's commerce it was usual to give aid to commerce in the shape of bounties, and to stimulate enterprise by monopolies. These privileges were not given merely as marks of Royal favour, but to favour commerce. Now, the very word "monopoly" is odious. Once, too, there were guilds for the protection of trade—bodies possessing considerable power and influence, and requiring subordination in their members; but the commerce at length grew too great to be restrained. At one time it might be fitting that the banker should be subordinate to the Goldsmith's Company, but now the great discoveries of gold and vast increase of bullion render such restraints impossible. Other trades also, as the grocer, might, with advantage, have submitted to restraints of certain corporations, but it would be vain now to submit our great Colonial trade to such supervision. The rise and progress of the East India Company would show well how an institution, vigorous and useful in its youth, had failed to keep pace with the advance of commercial enterprise. It showed well in its beginning the advantages of independent associations. At first a body of a few merchants, at length a Company, having the sovereignty of India, and the command over the destinies of two hundred millions. At length, however, the fabric it had raised was too vast for the sway of this Company, and, having in its day conferred great benefits, it passed away. In our Profession, also, there are institutions which have in their day conferred great benefits, which must either be remodelled or be superseded. Perhaps in no country were institutions more readily changed so as to adapt them to the altered necessities of the country than in this. The earliest efforts in our Profession were to establish certain Colleges and Corporations, and to them the education and government of the Profession was committed. The charter of Henry the Eighth to the College of Physicians was a most liberal one, giving to the body the education and scrutiny of the Medical Profession in all its branches. Shortly, however, its character became perverted, and its power was used for political purposes and for selfish ends. But we should not now judge too hastily. We may not be able to approve; but when events are passed, it is easy to sit in judgment and to say what would have been the best course. Whatever errors the College may have fallen into, it has at least always upheld the learning and dignity of its members and hence of the whole Profession. Although this College has been lately modified to render it more useful, it has been by the Medical Act placed in a different position to that which it occupied for the last three hundred years. During that period it had almost a monopoly, and strict legal privileges. Now it is on equal terms with the Colleges of Ireland and the ten Universities. The Royal College of Surgeons is of rapid growth, dating not much more than from the middle of last century as an independent power. To the splendid Museum of John Hunter, and to the great names of Sir Astley Cooper, Travers, Brodie and Lawrence, to the augmentation of the Museum, and to the labours and eloquence of Professor Owen, it owed great part of its present commanding position and influence at home and abroad. It may, Dr. Burrows said, be questioned whether its policy has always been of a nature to conciliate the body of the Profession. The recent deplorable disregard to the regulations of the Medical Council has placed the College of Surgeons in an unfortunate position. If the College continues to disregard those regulations, it must either follow that other Medical bodies will do the same, or the Medical Council will be obliged to bring the question before the Privy Council. Another Medical institution, the Apothecaries Company, had had a powerful influence on the Profession, since new life was infused into it by the Act of 1815. The faithful way in which the powers conferred by this Act had been exercised, had revolutionised the whole Profession. The Profession of 1815 was scarcely to be recognised in that of 1862, education having steadily advanced and produced a new order of things. The result was that gentlemen were now of superior education to the Apothecaries of 1815, and were desirous of greater status than association with that Company gave them. It was not from want of respect to the Apothecaries Company that he said this, as he acknowledged that it was the superior education required by this body that induced its members to seek a better status in the Profession. At one time, when the lines between the various grades of Professional men were sharply drawn, when every one considered himself by a certain line of practice affiliated to one of the three Colleges, the government of the Profession, although imperfect, was practicable; but when they merged, and when from uniformity of education, persons practised beyond the influence of any one corporate body, it was not possible. Having thus endeavoured to take an impartial survey of the three Medical Colleges, he could not, he said, refrain from expressing an opinion that these Corporations cannot fulfil these functions, but that rather some new Institution, based on no exclusive principles, but so framed as to include all grades of the Profession, is wanting to exercise a wholesome influence. The British Medical Association supplies this defect in our corporate bodies. These bodies may still superintend education, but it will require some body of greater authority to exercise a general moral influence over the Profession. It is not likely that the Legislature would sanction a new institution with such

general power; but as the British Medical Association carries with it public opinion, it has practically the great influence required. Another feature of the British Medical Association is, that if any great injustice is done to any part of the Profession, or if any legislation on any particular subject affects the general welfare of the Profession, there is ready a band of fellow-workers organised to bring influence to bear. This influence the British Medical Association has often exerted with success. In conclusion, he would say of the Association, *Floreat semper*.

The Secretary then read the Report of the Council, of which we shall give an abstract next week.

Sir Charles Hastings had great pleasure in rising before so large a meeting to propose the adoption of the Report. It was a source of the greatest satisfaction to meet the members within the walls of the College of Physicians and to hear the advocacy of the Association. This College, animated by new life, has now the vigour of youth with the dignity of age. It was now thirty years since a small but earnest band organised the Association. It had gone on prospering, and nothing was more calculable to increase its reputation than this meeting in the Metropolis, under the presidency of Dr. Burrows. He could remember when the Association was regarded as of little moment, and when, in the Provinces, they were thought of little account, and considered inferior to the Metropolitan members of the Profession. The effect of uniting as one man had produced a great change in these respects. He could remember when provincial members took little part in Medical Societies. Scattered about they could not take part in great questions, but by combined action a different state of things had been induced, and the provincial member had taken a new position. They could now hold out the right hand of fellowship as brother workers. It was scarcely necessary, he said, to enlarge on the topics contained in the report of the Council. On one point he would, however, briefly allude,— the representation of the Profession in Parliament. The privilege of voting by papers might be conferred on the Medical Profession as a body. At a fitting time it would be well to urge the claims of the Profession on the Ministers of the day. In questions of Medical reform the influence of the Profession had been felt, and although all had not yet been done, this at least was accomplished, that the Medical Profession throughout the British Empire was one body, and not separated into isolated classes.

Dr. Webster, of Dulwich, had peculiar pleasure in seconding the resolution. He must also be allowed to take this opportunity of congratulating the President as the son of a father, an old friend of his, who was mainly the cause of the great changes in the Apothecaries Society. One who stood up for the rights of General Practitioners. At that time General Practitioners were not cared for by the Colleges of Physicians and Surgeons. He had then had the pleasure to act with the late Dr. Burrows when the latter was Chairman to the Associated Apothecaries of England. To him was owing chiefly the passing of the Act of 1815, and the introduction of a better system of Medical education. He (Dr. Webster) was glad to see that the College of Physicians, which would have been thought the very last to come forward, active in the cause of Medical education. He hoped to live long enough to see a British Faculty of Medicine, with no gradations except those of education and ability. He was glad to see Dr. Burrows, as representative of this great Association, following the footsteps of his honoured father. In reference to the College of Surgeons, he said that, although recalcitrant, they must give way. He considered the British Medical Association as the Parliament of the Profession, and believed that its influence would be felt. In concluding, he hoped that the members would enjoy the few days they were together. He had been to many Annual Meetings, and always enjoyed them. In reply to one gentleman who was in practice as an Apothecary before 1815, Dr. Webster said that he had been misunderstood if he was supposed to have said anything implying want of respect for the Practitioners in practice before that date.

Mr. Webber said that in rising he did not wish in any way to impede the carrying out of the objects of the meeting; on the contrary, he would gladly do all he could to further the union of the Society. He wished to speak on a few subjects in the published report. The Council urged the members to contribute papers to the Journal. In this he coincided. He wished also to know if there was a Sub-Editor to the Journal, and also if there was any one appointed to report the meetings. He asked this, as he conceived that some remarks made by him at the last annual meeting had not been correctly reported. Of this he had complained, and had written a letter to the Editor, which was published in the Journal. He had given notice of a motion on which he would now speak.

The President, however, remarked that it would be in order to defer this subject until after the business immediately before the members had been disposed of.

Mr. Steele complained that in the Report of the Council the subject of Medical legislation had been passed over in silence. It is, we are told, to the Association that we are indebted for the Medical Act, and to this he agreed. Yet it was admitted that there were certain defects which gave rise to much dissatisfaction, and interfered with carrying out the spirit of the Act. He could not, then, understand how it was that the Council had not given the subject further consideration. It would be some satisfaction if the real working of the Medical Act were alluded to. Was it given up as a bad business? If not, why not persevere, and try to get Government to pass an Act to make things more satisfactory? Can we be told if there is any prospect of amendment, or are we to stay as we are,—if the Association intends to make any exertion in the matter? In reference to the arrears of £500, it was strange that it was precisely the same sum that was owing the previous year. It was not mentioned whether the arrears were the same. He thought that it would appear that arrears of £500—nearly one quarter of the Society's income—was not a satisfactory state of things, and scarcely creditable. It was but just that each member should not pay his share. The defaulters received the Journal, which was paid for by the subscriptions of the rest, and sometimes they had to put their hands in their pockets to pay the debts of the Society. He did not think them bad debts. The arrears were, in this case, due to the loose and irregular manner in which some Medical men conducted their affairs. He thought that the subject having been brought before the general meeting, the Council would be better able to put on the screw. He did not think that by extra pressure a single subscriber would be lost.

The President said that, although not mentioned in the report, the subject of Medical Reform had been considered by the Council, and that a Committee had been appointed to draw up a Bill, which would be in due time laid before the members.

A Member said that he was surprised that any one calling himself a gentleman should continue, year after year, to receive the Journal and not pay for it. The only practical way to deal with this question was, not only to publish the names of those who pay, but of those who do not.

Sir Charles Hastings said that it was from no want of application that the arrears of subscription were not got in. They had a stringent rule that if a subscription was in arrear more than twelve months, the Journal should not be sent. It would be illegal, libellous, to publish the names of those who did not pay, as legally there was no claim, it being entirely a question of honour.

A Member said that a request might be made in the Journal that certain persons, names being given, would be good enough to pay their arrears.

Dr. Wood thought that the non-payment of arrears was owing to procrastination and carelessness, and suggested that a life payment should be received instead of annual subscriptions.

Another Member suggested that a collector should be appointed, who should receive a commission on the amount he got in.

Mr. W. D. Husband, of York, said that if there were a stringent rule that the names of members six months in arrear should be expunged from the lists, it would probably tend to induce greater punctuality in payment.

Votes of thanks were then given to Dr. Lochee, to the Council, and to the Secretary, Dr. Williams.

The President then said that Mr. Webber might now bring forward the motion of which he had given notice. He would, however, first read a resolution of the Council recommending that the dispute alluded to (between Mr. Webber and Mr. Spencer Wells) should be referred to three referees.

Mr. Webber said that he should be glad to fall in with any suggestion of the Council, but first he would make some observations. He was sorry to adopt any course contrary to the wishes of the meeting. In regard to appointing one of the

Committee, he respectfully declined to do so, and would leave his cause in the hands of any one. He thought that after having been a worker in the Profession for forty-five years, it was hard now to be branded as a criminal libeller and to be visited with ruin. He wished to bring before them the action for libel brought against him by Mr. Spencer Wells. One object of the Association was to look to the honour and respectability of the Profession. Character is always a great thing, and every one is glad to see that people are brought to account for their doings. Had the College of Surgeons in this case done their duty, he (Mr. Webber) would not have been in his present position, and have been brought to ruin. He felt sure that his case would elicit the sympathy of the members. He had never yet had his cause fairly stated, and hence the trial went against him, and the Judge would not stay execution. He would submit to the arbitration on condition that all the evidence be published.

Dr. Stewart said that it would be impossible for the Association to pledge itself that the whole, or indeed any of the evidence, should be published.

Mr. Webber then requested that the President would act for him.

The President declined, on the ground that Medical men in London were so closely connected one with another that it would not be well for any one in London to undertake it.

Mr. Webber said that he would leave his cause in the hands of the Committee appointed to investigate a Professional dispute at Canterbury.

Mr. Spencer Wells said that this case had been brought into a court of justice, and had been tried by a jury before the Lord Chief Justice. He (Mr. Wells) had been examined on oath before the court, and Mr. Webber might have been if he had thought fit. In a court of justice only could he meet Mr. Webber, when, if he spoke falsely, he could be punished for perjury.

Mr. Webber said that Mr. Wells knew well enough that he was now driven to poverty, but if he could sue *in formâ pauperis* he would gladly meet him in a court of law.

Dr. Webster suggested that a court of honour should be appointed by the Council, to investigate disputes whenever they unfortunately arose.

Mr. Webber said that at an early period he offered to submit the question to arbitration, and offered that the disputant in the wrong should buy a life governorship in the Medical Benevolent College, to be exercised by the one in whose favour the question was decided. He was anxious to defer to the wishes of the members, and would at least go before the Committee.

SECOND DAY, WEDNESDAY, August 6, 11 A.M.

Dr. Burrows, President, in the chair.

A short report from the Council was then read in reference to the dispute between Mr. Webber and Mr. Wells. They decided not to entertain any question that had already been settled in a court of law, but would hear any further charges of unprofessional conduct that might be brought forward. A resolution to this effect was moved by Mr. W. D. Husband, of York; it was seconded and carried unanimously. The Council were of opinion that the refusal of one of the disputants to submit to the adjudication of the Society ought not to prevent the inquiry from being carried out. A resolution to this effect was also carried.

A Paper, by Dr. B. W. Richardson, was then read, entitled,

AN EXPERIMENTAL REPORT ON THE TREATMENT OF SUSPENDED ANIMATION.

The following is a brief abstract. After some introductory remarks, the Author said that he had intended giving a historical sketch of the opinions of others. As, however, he had himself conducted more than seven hundred experiments, extended over a period of many years, he should not be able to do justice to that part of the subject, and had therefore omitted it. He wished first to state that he took into his inquiry those cases only in which, in the otherwise healthy body, the oxidation of the blood was not accomplished, disregarding those in which there were organic changes from injury, disorganisation of the blood, etc. He would divide the cases into the following:—1st. Those in which the current of air was cut off from the lungs by occlusion of the windpipe, as strangulation, drowning, etc. 2nd. Those in which the inhalation of certain vapours, as chloroform, prevented the oxidation of the blood. 3rd. Those in which poisons absorbed from the alimentary canal prevented the oxidation of the blood, as, for instance, chloroform. 4th. Shocks to the system generally interfering with the oxidation of the blood. 5th. Cases in which the blood is removed from the air, as in hæmorrhage. 6th. Cases of extreme cold. Time would, however, only permit him to dwell on the first two. He should in each describe the morbid appearances after death, and then, in conclusion, speak generally of the treatment in cases of suspended animation. In cases of obstruction of the windpipe, the morbid phenomena are generally the same, but not quite alike in different cases. In all cases where death has occurred within eight minutes, the condition of the blood is the same, the corpuscles being normal and the fibrine not separated. In all, however, the process of coagulation, in the body, was very slow. In twenty-three examples the blood had been found fluid in twenty minutes after death. In one case of hanging in the human subject he had found the blood fluid three-quarters of an hour after death. Yet this was not due to chemical changes, as the blood when exposed to the air coagulates, and is susceptible of oxidation, and is capable of restoring muscular irritability. If the death be very rapid, the right side of the heart will be found gorged with blood, and the left firmly contracted. The Author then showed an instrument by which he was able to regulate at pleasure the amount of air admitted into the windpipe. If, however, death be less sudden, the condition of the heart is different, the left side of the heart also contains some blood, and is somewhat relaxed. If, during death, the stethoscope be applied over the region of the heart, the heart's sounds will be heard for from three to nine seconds after the last respiration, then the diastole ceases, and for a few seconds the systole only is heard. The systole is the time during which death takes place. If, however, after it has ceased the thorax be opened and the heart exposed, the heart may again be seen to beat. From this it had been assumed that the heart continues to beat for some time after respiration ceases, and that if the latter can be re-established the heart will continue to beat. He felt sure, however, that the action of the heart on exposure was due to the stimulus from the air, and not to any real continuance of life. If a little chloroform vapour or a little cold air were blown over it, the pulsation ceased, and a little warm air would speedily recall it for a time. This contraction of the heart is not propulsive; it does not distend the arteries, and is useless to start the circulation. The condition of the lungs also, like that of the heart, varied according to the speed of death; if rapid, nothing unusual was found; if prolonged, they were gorged with blood. If death had been very quick, they were bloodless; if very prolonged, there was very great congestion. It was not difficult to explain this. In health there is always an accurate balance between respiration and circulation; but when the supply of air is cut off, the oxygen in the lungs is gradually absorbed, and for a time the blood is kept in motion as in life, but as the heart receives no arterial blood, it ceases to propel the stream into the lungs. When the air is partially cut off, the diaphragm is fixed and the chest-walls firmly contracted, and the heart continues to force blood into the lungs until they are gorged. The brain is more or less congested as the death has been more or less rapid. It is rarely seriously injured so as to preclude recovery. The viscera of the abdominal cavity are generally congested. Cases of immersion in water varied in the morbid phenomena found at death. If an animal is drowned in a narrow vessel with its head downwards, the condition is pretty much the same as in stoppage of the windpipe. The same result is also obtained by immersing an animal in very cold water. If, however, the animal is put into water at 96°, the result is the same as when air is slowly stopped—*i.e.*, there is blood on both sides of the heart. In cases of drowning at ordinary temperatures, in the human subject the blood-corpuscles are unchanged, the blood is fluid, but it coagulates on exposure and is oxidisable. The heart is congested on the right side. The brain is congested, and sometimes there is effusion of serum, but no great organic change. The spleen and kidneys are congested. Different gases act differently: some by preventing oxidation by their mere presence, as chloroform vapour; others, as carbonic acid, by excluding air containing oxygen. The effect of chloroform vapour in preventing oxidation might be shown by putting a lighted taper into a jar containing oxygen. It would not burn in such a mixture. On the other hand, carbonic acid kills, as water does, by excluding air; the

animal is "drowned in the gas." Deaths from chloroform in the human subject give us no definite information as to the physiological action of this substance, as they generally take place in patients whose organs are diseased, and in which there have been attempts at resuscitation, and often loss of blood from operation. The Author had made experiments on ninety-three animals, in order to ascertain the effects of chloroform in causing death, and as the results had been uniform, he felt justified in supposing that he had arrived at the true formula of morbid action. Apparently a paradox, —in these cases death took place from the heart, although the heart outlived the respiration. The heart, as the Author had found by experiment, would beat some time after it was too weak to propel the blood into the aorta. The cardiac action was on the right side only; so that really there was no paradox in saying that death began at the heart. After the action of the heart ceases, if the chest-wall be removed and the heart be exposed, the heart's action will begin again; but the act is futile, and is unable to inject the lungs. When the air is removed, the action ceases. In all the experiments the lungs had been found free from congestion. The circulation gradually diminishes in power step by step; at length the right side alone contracts, but enough only to show to the observer that the heart is acting not enough to propel the blood into the lungs. The Author then gave the details of his experiments with carbonic acid. He remarked on the general results to be deduced from the experiments, and afterwards proceeded to speak on the treatment of suspended animation. The following is a brief summary:—1. Artificial respiration is of avail in those cases only in which there is a stream of blood from the right to the left side of the heart. 2. That if this current of blood travels the arterial channels, the respiration will follow. 3. That warmth is of great value. 4. That galvanism is dangerous in all cases. 5. That after apparent death, but before the coagulation of the blood, restoration to life is possible.

A Paper, illustrated by many drawings and preparations, was then read by Dr. Sibson, on

ANEURISMS OF THE ARCH OF THE AORTA.

Unfortunately, the time for reading the paper was very short, so that it was not completed. The following is a very brief abstract of some parts of it:—The Author said that a considerable number of cases of aneurism of the arch of the aorta were not diagnosed during life; many, for instance, had been taken for laryngitis, and tracheotomy performed with the hope of saving life. The object of his paper was to endeavour to clear up some points in diagnosis. He divided the arch of the aorta into four parts for convenience of description,—1st. The spring just above the sinuses; 2nd. The ascending part as high as the origin of the arteria innominata; 3rd. The transverse part; and 4th. The part from the origin of the subclavian to the thoracic aorta. The Author spoke of the labours of others in this field of inquiry, especially of Dr. Thurnam and the Dublin Physicians. He alluded to the frequency of death from aneurism, in which there had been during life no suspicion of such disease. In speaking of aneurisms of the first part of the aorta, the author alluded to the effects of pressure on the pulmonary artery, and to the cause of the bruit, which latter, he believed, in nine cases out of ten, was due either to regurgitation through the aortic orifice, or to pressure on the pulmonary artery. He next spoke of cases in which a communication was established with some other large vessel. In the second part of the aorta the aneurism was almost invariably on the convex part of the vessel. This part of the aorta becomes widened and elongated; but the elongation is not by extension upwards, but downwards, displacing downwards the heart. Aneurisms of this part of the aorta generally point below the manubrium. He considered that a murmur was not a very common attendant, and when present, it was due, not so much to the aneurismal dilatation as to entrance of blood into it from the narrow opening of the aortic aperture. If the valves are perfect there is a double impulse felt over the tumour. It seemed constant that if there was not a thrill at the aortic valve, we get a double shock by placing the hand over the tumour. The Author next spoke of aneurism of the transverse part of the arch of the aorta. In these cases there was true mechanical dyspnœa from pressure on the trachea, and often dysphagia from pressure on the œsophagus; and here also the recurrent nerve was so placed as to be interfered with, and thus laryngismus was added as another element of dyspnœa, attended with thick voice and hoarse cough. In aneurism of the descending aorta there is a totally different field of diagnosis. There is no tumour in front, no double impulse, and no pulsation. Here we are driven to rational diagnosis, and get help quite as conclusive. One fact to be especially remarked is the fixity of the artery. Eighty per cent. of these aneurisms are saccular, and have a knack of pressing backwards, so as to impinge on the sympathetic and on the bodies of the vertebra, producing caries, and at length affecting the trunks of the intercostal nerves. The pressure on the intercostal nerves produces the constant gnawing pain in the region between the scapula, and also by its following the course of some intercostal nerve helps to make the diagnosis more certain. In seventy per cent. this lancinating pain is present. The Author then alluded to occasional difficulty in deciding whether these symptoms were produced by tumour or by aneurism. As the time fixed for Dr. Walshe's address had arrived, the Author was not able to finish his paper.

ADDRESS IN MEDICINE, BY W. H. WALSHE, M.D., F.R.S.

Mr. President and Gentlemen,—The weekly Medical Press, the graver quarterly journals, the semi-annual retrospect, and, above all, the literature itself which feeds the latter, set forth and register the particulars of last year's scientific and practical achievements. Herein abound not merely the signs of that restless activity which will perpetually push to the surface amid large bodies of intellectual men, but the evidence of real substantial improvement. Whether it be in our knowledge of the chemistry, the physic, or the dynamism of disease, the word "progress" is legibly inscribed on the records of last year, as on that of many of its recent predecessors. Now, it seems to me, a brief survey of the ultimate causes and mechanism of this modern progress, especially in regard to its promise of durability and sustainment, may not unfitly occupy some portion of our time to-day. The existing advanced condition of Medicine, and its brilliant promise for the future as a means of positive knowledge, are, I think, primarily and essentially due to that spread of an improved observation among those working at clinical and subsidiary pursuits,—to that patience, precision, and minuteness with which facts are investigated and recorded. In days not very far from our own, or even by the most eminent in our ranks, the observation of Medical facts was more or less openly contemned,—was disdained by pathologists of mark as a fitting task of the patient drudge rather than of the man endowed with intellect, capable of working out the alliances and repulsions of those facts, distinguishing their necessary probable contingent and purely accidental relationships, inducing therefrom general results, and co-ordinating these into a system. The correctness of the facts themselves, absurd as this may seem, was treated as matter of small importance; the first comer, willing to undertake the work, was accepted on his own guarantee as an efficient and competent observer, while it was reserved for the intuitive aptitude of the systematiser to distinguish and separate the real from the unreal, arriving at an issue of pure truth from premises, confessedly containing variable quantities of jumbled truth and error. But two causes have been fatal to imperfect observation as a system, whether by proxy or otherwise. The first of these causes is the failure one after another of pathological doctrines founded upon it, a failure necessarily entailed by the abiding, inseparable influence of the original quantum of admixed error, by the impossibility of fashioning a total of truth out of elements partly true and partly false. It has at length been perceived that fundamental unfitness underlies the whole process. The second cause is, that observation is now undertaken by men fitted for the task, by men of large, natural, and trained endowment; and the toil is undertaken by these because it is now generally conceded, and by them in particular has been intuitively felt, that the work of observation is alike difficult and exalted, that to make an observer requires a combination of faculties as high, though in some sort of a different order as to make a speculative thinker, that in the mass and main and as a rule, to observe facts is as lofty an expression of intellect as to conceive thoughts. True it must be admitted that in some men whom the *mens divinior* illumines, in whose brains a spark of divine essence scintillates, thought is grandest; it goes before facts, it creates, it defines these, and leaves experience to drag its slow length along to the goal of truth itself has long since reached. But

we speak of the ordinary type of intellectual men, not of those exceptional marvels of whom some two or three are vouchsafed to the world in the course of a century. The value of observation being granted, its true function in the establishment of Medical science being recognised, that the means of conducting it should be extended and improved followed as a necessary consequence. Hence that constant tendency to the employing of instruments of various kinds, characteristic of the clinical investigations of the day,—instruments which have enabled us in many cases to estimate the degrees of the objective phenomena of disease with an amount of accuracy, not figuratively, but literally mathematic. Hence the change that may be noted in the programmes of our Medical Schools. The direct education of observers is now met by the schemes of instruction, the bed-side training of the senses through which the objective signs of disease become intelligible; the bed-side training of the judgment whereby the reality of subjective pains may be estimated; the bed-side training of the logical faculty that enables us to discriminate between the important and the unimportant, and fix on the true relationships of the complicated perversions of function and of structure we are called upon to unravel. Coeval with this practical recognition of the place held by observation has arisen proportionate distrust of the efficiency of deductive method. The abandonment of this method has followed. At last we have acknowledged that in Medicine there are no first principles within reach of human intellect at least, where from we can descend to facts *ad libitum;* there are no axioms in our science wherefrom we may fashion theorems and deduce proportions that shall suggest physiological and pathological facts and establish a doctrine of disease prior to experience. We have even recognised the cardinal principle, that whereas in certain other branches of human knowledge the deductive and inductive methods of obtaining truth are both applicable, in fact reciprocally sustaining the one, often supplying what the other is unable to give. In our sphere of mental work the smallest step cannot be safely made by the light of deduction. We begin from individual facts, rise to those general inferences which are our most comprehensive expressions of attainable truth. How different the mode of proceeding in that purely individual science which deals with properties and speaks of number. Here you begin first with axioms, that is, with propositions by assumptions, so absolutely true as to be genuine truisms, and upon these axioms are founded the details known as geometrical science. True there have been persons credulous of the reality of first principles, *quasi* axioms of pathology, persons who have actually manufactured these, and attempted to deduce therefrom clinical developments of disease. We have abstract principles of animalism, vitalism, Broussaism, etc. We have had deductive method exhibited in the concrete form by Cullen in his fanciful account of Synocha, a disease which he neither professed to have encountered himself nor maintained to have been seen by others, but which, on the faith of his principles, not only must exist but must assume the characters, run the course and effect the modes of termination, which he invents as he goes. Such achievements as these of Cullen have had their day, they are not likely to be revived, but it supplies his achievement with needful value. Observe the easy indifference about truth as conceived by most minds involved in a procedure such as that of Cullen, and yet no real proclivity to falsehood existed in that mind. He was probably as honest, and as honest in his veneration for truth in the abstract as the most pains-taking Baconian that ever stood, thermometer in hand, by the bedside of pyrexical patient, and trembled lest he should misinterpret by the tenth of a degree the temperature under the tongue. He was no more dishonest than the keen-witted philosopher Hume, who, both of morals and political economy, went the length, not only of preferring ideas to facts and professing indifference bordering on contempt, both for the process of their collection and for themselves when collected, but of maintaining that when the preconceived ideas of deductive philosophy and the actual observed facts clashed, the collision was unimportant, *i.e.*, facts must yield, theory holds its sway. No, it was not the man, but the system that made light of truth. Cullen and Hume were both equally innocent of designed mendacity. Again, it is curious to observe that just as in other branches of knowledge, in theology, and in morals, for example, so in Medicine; wherever and by whomever deductive philosophy was professed, a sort of terrorism to suppress the right of private judgment, to make the *Sic volo, sic jubeo, stet pro ratione voluntas* reign supreme. Note the dogmatism of Broussais, splenetic, overbearing and intolerant. See him denounce all theorists but himself, and revile searchers after facts, just as certain speculative theologians proclaim that tolerance for any creed but that fostered by themselves is positive impiety. Do I exaggerate in affirming that a few years past it was a work of danger, a sort of chivalry in the field of science to oppose a prevalent dogma of the so-called physiological school; that a man who failed to comprehend was simply regarded as a dolt, while he who ventured to question took his place among the crazy ones of his day? But if we may fairly assume that the deductive method is banished as an acknowledged scientific instrument from the domain of pathology, it is equally certain that indications of an unfortunate disposition to return to it every now and then make their appearance; and yet there can be no reasonable apprehension that any *à priori* systems of pathology will again take serious hold of the Professional mind. If men will for once, for once only, accept the warning offered by the history of the past, that history not only teaches us the absolute failure of all such systems, but shows that so long as deductive methods prevail, all progress must, if not solely, at least essentially, consist in the destruction of something that has gone before; the energies of genius must be wasted in negativing the errors of the past. It is noteworthy enough that the story of Medical progress in this aspect gives feeble support to—nay, almost clashes with—the opinion held by some speculative historians, who regard the dominancy of inductive reasoning as especially characteristic of the Anglo-Saxon mind. The general proposition may be true, or it may be false. I rather think the former; but unquestionably the Celtic mind of France has taken a very large, if not the largest, part in establishing the supremacy of induction as a real instrument for discovering Medical truth. Nor, Mr. President, must we forget, as an element of modern progress, that the true function of hypothesis has been fixed; on the one hand, escaping the grave fallacy of the deductive system which first assumes the hypothesis, then assumes its absolute truth, and next reasons down to facts; on the other, we have learned to steer clear of the almost equally serious error of rejecting hypothetical propositions altogether. Hypothesis is now valued at its worth; it is accepted as an instrument of suggestion; it is welcomed as a clue which guides the senses in the observation of facts, and so save frequent waste of time and energy in the search after, and registration of, particulars that bear little or no relationship to each other, and must *pro tanto* prove unsusceptible of furnishing general conclusions. We are at the present day also fully alive to the danger of two freely utilising hypothesis even in this subdued and suggestive fashion. We have learned to acknowledge that it is often difficult to resist the temptation of squeezing facts to fit an hypothesis for which, as a creation of our brain, we entertain much of the tenderness of a parent for his offspring, and which we cannot be expected to sacrifice without a struggle to the pitiless logic of facts. Hence, perhaps, it is that many of the most solidly-established propositions in pathology have been induced from pell-mell accumulations of individual facts heaped together, independent of any pre-formed idea whatsoever. Look, in illustration, at several of the most striking among the pathological laws discovered by Louis, which, taken alone, would suffice to disprove the notion held by some thinkers that the search after a generalisation involves as a necessity the conception of hypothesis. No; not only were the primary facts sought without guiding hypothesis, but in many instances they were thrown into groups by a natural process of attraction untrammelled, unthwarted, and uncontrolled by any preconceived idea. Still, this circumstance does not negative the value of hypothesis cautiously employed in the suggestive sense. Only let us not take ideas for facts. Ideas should be accorded a large place, submitted to the touchstone of experience, never rejected without trial unless on the very surface they bear the stamp of error, or, what we seek to conceal, an under-stratum of folly. In this sense, but in no other, ideas may be welcomed; still, so few are the men capable of conceiving such ideas as shall withstand the rude test of experience, and so much fewer are the men who, were their theory annulled, would calmly relinquish its propaganda, that I for one should grieve to see inscribed on the portals of Medicine any epigraph, no matter what venerated authorship it might claim, deifying ideas.

I refuse to concede with Leland, as far at least as Medicine is concerned, that the situation of the most enchanted enthusiast is preferable to that of the philosopher, who, from continual apprehensions of being mistaken, at length neither dares affirm nor deny anything. No, not preferable in the domain of Physic. False theory must be worse than no theory at all in a sphere of knowledge where speculation entails action, where the practice of an art flows from the doctrine of a science. And so we pass on to the next cause of existing progress, — the recognition of the true significance of so-called pathological laws. When Louis first promulgated a series of general propositions on which this title was bestowed, the word was accepted in a more absolute sense than it can fairly command. It was supposed by some ardent persons that these laws were as stable as laws of the growth, decay, and death of the organism, nay, as the physical laws of the universe. It came to be held that it would be well-nigh as positive an infringement of the order of nature, were a tubercle found in any other organ than an adult whose lungs were free from that product, as if the movement of bodies were detected in infraction of the law of gravitation. But the day of these delusions has passed away, we now know that those general results which we take for the expressions of pathological laws in the sense of fixed force,—pre-ordained and immutable relationships of antecedence and consequence without reference to those deeper metaphysical meanings that underlie the idea of law, have nothing of this scope, of this absolution, of this grandeur. A larger experience than that which originally worked out these presumed laws has shown that they are not laws at all. In the higher significance of the term, a law of nature knows no exceptions; the so-called pathological laws, on the contrary, are subject to perpetual exceptions; in point of fact they are, at best, the generalised expressions of degrees of frequency. When we say, for example, it is the law of such and such a disease that such a combination of circumstances occurs in it, we really mean no more than that in a certain calculable majority of instances of that disease, that combination will occur. Now, in thus relinquishing the ambition of establishing laws of pathology assimilable to, and co-ordinate with, laws of nature, we appear, instead of advancing, to have receded. The progress here savours somewhat of a negative quality it is true, but the ultimate value of surrendering vain pretensions has in all sciences been positive. Closely linked to its improvement, allied to it in nature stands the corrected estimate of the men of to-day concerning the true import and value of the numerical method, especially in its application to clinical medicine. So long as any one mode of combination of certain clinical facts and conditions can only be spoken of as more or less frequent than another or other possible combinations, the want of definiteness in the idea, and in its expression only deprives both of either scientific or practical significance. But the case is changed by the aid of the simple process of counting, a distinct numerical value is substituted for the vague words "more or less;" for concede, as we have already done, that the numerical expressions of precise degrees of frequency do not carry with them, either strictly or inferentially, a revelation of laws in pathology, still they most certainly present average combinations of phenomena of disease in the mass, and so oftentimes furnish most valuable peeps through the obscurity surrounding the natural affinities and repulsions of morbid processes. Now these numerical expressions are of course perfectly sound, so far as the particular mass of facts from which they were derived is concerned, and they will continue to be sound if applied to a fresh mass of cases of the same nature, arising under similar conditions. But a function of more practical importance than this was at one time assumed for it; it was supposed that numerical expressions signifying majorities of variable strength, might be subsequently applied in individual cases with almost unfailing surety. Is this the fact? I fear not. It may, for instance, be perfectly true, is perfectly true—that in the great majority of instances, chronic peritonitis in the youthful adult is not only diathetic, but especially attached to a certain diathesis. The tuberculous, if not a law, which certainly it is not, this is, at least, a rule; but if we apply this rule to individual instances, and attempt by its aid alone to found the diagnosis of tuberculous peritonitis, possibly in the very first instance that comes before us of a character to test the point, our faith in averages as applied to individuals may be destined to be rudely shaken through the discovery that the chronic peritonitis before us sprang from cancerous and not from tuberculous seed. Now, in the recognition of the practical danger of a too absolute application of averages to individual instances there is progress. Some years past there existed much too great readiness to trust to these averages as sure elements of diagnosis. Let us not, however, run into the opposite extreme of undervaluing them. Even in this clinical sense they are of great subsidiary importance, and should never in the balance of *pros* and *cons* in a difficult diagnosis be omitted as more or less serious items of evidence. But Gentlemen, stimulating, sustaining, and guiding these means of improvement in Medicine, is found what may be emphatically termed the dominant intellectual quality of the age—the spirit of philosophic incredulity, and of independent inquiry, and the absolute rejection of authority. The active faculty of doubting has acquired vigour, the passive endowment of blind faith dwindled into decrepitude. Formerly we had a minimum of knowledge, and a maximum of credulity; now we have an ever increasing quantity of fact and involved inference,—that is, of true knowledge, and a perpetually decreasing aptitude to take things on faith. As in theology and in morals so in Medicine, the conservative spirit has, until of late years, been almost omnipotent. To the mass of men that which has grew years is godly, and in no sphere of knowledge has this been more distinctly felt than in the Medical. But of late we have escaped from this sort of willing bondage to the past; the time has gone when it was the highest merit to discuss with acuteness opinions of writers who had gone before, illustrate their surface sense, search out their deep significance often where none existed; and, in a word, comment through opinion on opinion, *ignotum*, as it were, *per ignotius*, with scantiest reference to original fact. These were the palmy days of tradition and its commentary. True, the spirit which feels that any given doctrine is not of necessity unsound, simply because protected by the ægis of respectable names, the spirit without which the world would never have seen a Galileo, a Columbus, or a Martin Luther, is to be found frequently struggling for existence in the bygone historical and relatively recent periods of Medicine; but of late years only has that spirit become absolutely dominant. No amount of past achievement, no perfection of intellectual brilliancy in a tutor, no universality of belief in any particular man's endowment, no humility of hero-worship will save any opinion, any creed, any statement of alleged facts from the critical revisal of the humblest and newest worker in the field, or protect one or other from inevitable destruction, if that revisal detect a flaw. And so the day is gone when honest Medical men could be found the active or passive supporters of flagrant absurdities; absurdities made decent and becoming by high-placed assurance of their wisdom. When that remarkable sovereign, William III., in so many aspects advanced beyond the spirit of the age he lived in, strove to discountenance the superstition of touching for the evil, he was almost the solitary man of mark in his dominions who at once felt the stupid inanity of the practice, and dared run counter to the popular tide of folly. On one single occasion he is reported to have yielded to importunity, and to have laid his hand on a patient; but on that occasion, he at least soothed his moral and intellectual conscience by uttering the remarkable words, "God give you better health and more sense." "Theologians of eminent ability and virtue," says Macaulay, "gave the sanction of their authority to this mummery,"—a fact at which the distinguished historian does not appear to profess any particular marvel, but he does signify his wonderment that Medical men of high note were to be found among the supporters of the delusion; and yet as long as the system of authority in matters of opinion prevailed, how could it have been otherwise? While certain sections of the Church consigned even William himself to perdition, by stigmatising him as an infidel because he refused to believe that the touch of a particular finger could destroy a constitutional disease, it seems well conceivable that the struggling disciple of Esculapius might not, simply and alone, have felt it inconvenient and dangerous to expose the imposture, but that his intellect might have been at length mastered by his fears, and that he actually ended by believing in the folly at which his common sense and experience originally revolted; and if things are now changed, if the Medical Profession as a body stands as the practical bulwark of the present day against superstition of all kinds, the reason is, because they have shaken off the tyranny of authority, because they have learned to think for themselves, because

they have recognised and utilised the elevating lesson conveyed in the sagacious and eloquent words of one of the greatest English prelates, Bishop Hoadley:—"Authority is the greatest and most irreconcileable enemy to truth and argument that this world ever furnished forth. All the sophistry, all the colour of plausibility, all the argument and the cunning of the subtlest disputer in the world may be laid open and turned to advantage of that very truth which they designed to hide or depress, but against authority there is no defence. It was authority which would have prevented all reformation where it is, and which has just put a barrier against it where it is not." Such it appears to me, Mr. President, are some of the essential causes of modern progress. The greatness of Medicine appears to be indicated in the very character of the conditions that make the groundwork of that progress felt and acknowledged by the world without. To the consideratiou very briefly of this question I propose to devote the remainder of the time that we shall be together today. Among those beyond ourselves who profess to think at all on the subject of Medicine, a very general impression prevails that it is a study of limited scope but fully exercising the mental powers. The uncertainty of physic registered even in Professional aphorisms is appealed to in vindication of the opinion that it holds a low place among the various branches of human knowledge and inquiry. Its practice is disparagingly contrasted with that of the Bar, which it is averred calls into play all the higher intellectual attributes, and requires besides the gift of ready expression, nay, of eloquent speech, that these attributes may be employed with the maximum amount of advantage. But above all, the lay reasoner, who slights Medicine, fancies he has settled these intellectual claims by affirming that it is not a science. Not a science! True and false. True, unquestionably true, if we limit the term to systems of knowledge so perfect that from first principles we can reason down to individual facts prior to the actual observation of these, and then by the facts themselves, when observed, demonstrate the absolute truth of the principles which enabled us to foresee and predict them. This prescient faculty, which is the familiar power of astronomy, does not appertain and conceivably never can appertain to Medicine, and in this sense Medicine lays no claim to rank and title as a science. The leading character of astronomy, the faculty of predicting individual facts, as well as classes of facts, lies beyond our sphere. Let us see how near this *ultima thule* of perfection we can reach. We begin by observing facts indiscriminately. We find that these by reason of certain affinities, and resemblances, certain repulsions and differences, subdivide themselves into natural groups. By scrutiny of individual facts forming these groups, we find certain of the number distinguishable by special characters from the rest, and arranging themselves into sub-groups, and by continuing this process an indefinite number of times, varying with the nature and complexity of the original ground from which we started, we reach the individual facts again. By comparing groups and sub-groups of facts together we succeed in obtaining a clue to the alliances and repulsions, and once possessed of the clue, we can by its aid predict with very considerable probability the future modes of grouping similar facts under similar conditions. But we cannot do this of a surety, and we cannot predict for individual instances. For example, we have learned to foretel from the observation of masses of cases of pneumonia, from successive groupings and sub-groupings of these, that under given conditions of age, sex, constitution, season of the year, antecedent health, mode of treatment, etc., the rate of mortality will stand at a certain per-centage; but we cannot even approach to certainty in determining what place a given individual shall hold in his class, whether he in particular is to live or die. Here we are reduced to the calculus of probabilities, and prescient science is at an end; but upon the same reasoning a title may be refused, though with less absolute cause, to chemistry. The reaction of bodies cannot be always predicted prior to their being brought into contact out of general principles. If all forms of inductive knowledge are to be refused the rank of sciences, we must accept the sentence of Medicine and content ourselves with such comfort as may be derived from the excellence of the company in which we fall. Now, in point of fact, though this decision against the claims of Medicine to the title of science is very much the settlement of a baseless dispute,—a dispute about words, it leads, I cannot keep thinking, to an important issue, to more than one important issue. Because Medicine is not a pure science after the manner of astronomy, the further conclusion is jumped to,—that it has no claim to a high place among intellectual pursuits at all; that its attainment is easy; that its cultivation requires but little peculiar training of any kind, and none of a lofty order. All this appears clear to the public mind and to official shrewdness, and hence follow some curious consequences. Unless on this ground, it appears to me impossible to understand the leaning of Government, repeatedly exhibited, to hand over to the charge of persons without Medical education the conduct of public inquiries in their essence purely Medical. How else can we explain the fact that when some years ago—better things exist now I know at the Horse Guards—how else can we explain the fact that when some years ago the Horse Guards determined that there should be a statistical investigation into the health of the army, the management of the inquiry was entrusted to whom? To a Captain in the Guards, whose education and antecedents, estimable officer though he doubtless was, could scarcely be of a kind to qualify him for a seaching scrutiny into pathological facts. And how else than on the notion that Medicine is not a science, and that its pursuit demands no scientific training, can the recent singular attempt of certain legal members of the Legislature be explained,—an attempt by which, if successful, skilled Medical opinion would henceforth and for ever have been excluded in cases of lunacy? This is not the overt motive, but that it is the real and underlying, though hidden cause, there can, I think, be little reasonable doubt. The more ostensible, indeed, the actual, avowed, main reason is this: it is said that the contradictions of Medical experts *inter se* are so constant and so flagrant, that jurymen are likely rather to be led astray by the conflict of their opinions than guided by the clearness of their technical knowledge,—that the task, puzzling enough to an ordinary juryman, of weighing and combining facts, and interpreting merely undisputed professional evidence concerning those facts, becomes impossible if, in addition to all this, he be called upon to choose the true or the nearest to the true, among a host of irreconcileable dogmata, and, as elements of and guides to this choice, be required to determine the relative credibility and relative scientific competency of opposing skilled witnesses who hold opinions mutually subversive. It may be conceded in honesty that here is a difficulty, but the *onus probandi* that this difficulty makes the chances of all the jurymen failing to reach the right conclusion greater than it would be without such conflict of opinion, rests with those who oppose skilled testimony. Now, they have never made even a reasonable approach to proving this, and those members of the Bar who not only take this view hostile to Medical opinion, *quoad* lunacy in the abstract, but urge its practical adoption, appear to me to have overlooked two most important consequences of such adoption They forget that witnesses as to matters of fact—how often have we all of us noticed this in courts of justice—witnesses to matters of fact, thoroughly honest, conscientiously desirous of stating to the letter that which they believe to have impressed their senses, often contradict each other, simply because the observant power and the conditions under which it is at one and the same moment exercised by different people, more or less widely vary. If the Bar were logical, they should then plead that witnesses as to matters of fact might henceforth be silenced. They forget, too, that the very arguments used to prove the inapplicability of scientific evidence in matters Medical apply with equal force to skilled opinion in every form of legal inquiry. Who has ever been present at investigations into the causes of a railway accident without listening in bewildered astonishment to one learned engineer pooh-poohing with patronising scorn the plain statement of the equally learned engineer on the other side? Have you ever chanced to hear architects disporting themselves in scientific opinion concerning the foundations of a house? I have. Did the architects and surveyors subpœnaed in the case of the Tottenham-court-road fall of houses, some few years since, absolutely agree in their opinions as to the mechanism of the catastrophe, or did they contradict each other, not only as to matters of mechanical principle in building, but as to the apparently simplest and pettiest details concerning brick and mortar? Had the forensic crusade against scientific opinion in cases of lunacy proved finally triumphant, then should, as the logical consequence, all forms of skilled testimony be henceforth banished from courts of justice. And again, the lawyers forget that if ever there was an existence in which the *tu quoque* argument could be used with crushing

force, it is this. What! they who never can agree, who differ in points that, to the common sense of mankind, seem plain to self evidence; they of all men deny the worth of skilled testimony altogether, on the ground of nonconformity in the opinions of many of those giving it! Listen to a single instance of the degree to which the opinion of the eminent interpreters of the law may clash. A man enters into a contract of marriage. Shortly after the contract has been duly and legally made he is seized with hæmoptysis of the gravest character. All the symptoms of rapid pulmonary consumption follow. He declines to marry on the ground of this change in his health. The lady proves recalcitrant, and eventually brings an action for breach of promise. The Medical and lay evidence goes to prove that the defendant could not proceed with the marriage without probably inflicting mischief on himself, and possibly even endangering his life. The jury accept this view, and find a verdict in his favour, absolving him, in fact, from his engagement. But the Judge reserves a point of law after this fashion (and there is not a more learned Judge that adorns the bench than the Judge before whom this case was tried)—"It being fully conceded, through the finding of the jury, that the defendant would have jeopardised his life by fulfilling his contract, was he legally justified by that danger in withdrawing from its performance?" The question was sent up for decision to the court above, there the presiding Judges differed. Subsequently the moot point was referred to the thirteen Judges, and in this learned conclave, the difference of opinion reached the conceivable maximum; for not only were six of the number for the defendant and six against him, the presiding Judge giving his casting voice, but the individuals of each group of those who agreed on the main issue, disagreed as to the grounds leading to their agreement. The arguments by which the learned persons supported the same opinion, not only seriously differed, but in some instances were actually mutually destructive. The very argument which led one Judge to the conclusion he adopted, would have led another, adopting on different grounds the same conclusion, to reject it. And these are the men who would silence Medical opinion in courts of justice, on the ground that it is not always consistent! Now it is not a matter of real importance to the issue; still it is not unworthy of passing notice, how small is the claim of the Bar to deal severely with the imperfections of Medical knowledge. They find it a hard task enough to master their own written code of doctrine; nay, they often fail in this. They might, then, it appears to me, have a more sympathising regard than they habitually display for men whose sphere lies in the unwritten secrets of physic. See the difference in the problems with which we have severally to deal. We are called upon to penetrate the obscurest mysteries in the creation, the most entangled complications in the most elaborate of God's works,—the diseased actions and conditions of the bodily and mental man. Painfully toiling step by step at phenomena which to our limited ken are perpetually clashing with and veiling each other, assuming new forms. Chemistry, physics, and special dynamism associated in the most subtle combinations; they deal in the main with what they themselves manufacture, the laws of the statute book and formal precedents, things that are marked on the surface and deep into their substance with all the relative pettiness of human productions, and yet they are perpetually warring in their interpretation of those very small matters. We have to discover the hidden, the unknown, the uncontrollable; they to interpret the obvious, the known, the conventional; and yet to their own deficiency in the performance of this comparatively easy task they are proverbially purblind, while to the least trick on the part of those who deal professionally with the obscurities of physic they are lynx-eyed. And there is a third contradiction to which the forensic logic that would exclude Medical opinion, in the case of alleged lunatics, directly leads. Inasmuch as a conclusion must be drawn by the Medical untrained jury from the facts, and without any aid in the interpretation of those facts from persons whose previous busines in life is to study such facts, the Bar become partizans of the general doctrine that the man who knows least about any given subject is best able to form a sound opinion concerning it. How this *reductio ad absurdam* is to be evaded, even by legal sharpness, I confess appears to me impossible to imagine. If it be urged that in many instances of alleged lunacy where the legal question of competency to manage affairs is an essential question, the case is often a complex one, other matters besides psychical peculiarity being mixed up with the inquiry; if it be pleaded that there may be and often are circumstances lying without the pale of of purely technical interpretation, which may be as clear to ordinary men as to those specially trained in cerebral pathology, and which furnish their contingent to the total judgment; if this be urged, as it is known to be urged in the very highest quarters, the answer is easy; for obviously any argument to be found here simply amounts to this, that one important element to a verdict is to be neglected because other evidence besides itself exists and may be utilised. Another objection made to the admission of skilled opinion in cases of lunacy is that Medical observers having arrived at certain crude disjointed theories concerning insanity, must perforce take certain views in individual cases accordant with those theories, and that, consequently, their argument is assured in the form of actual advocacy before the facts. But, in the first place, this objection, if well founded, would be equally fatal to the evidence of professional experts of every class, and, consequently, one of two things, either the facts are clear, self-evident, well-defined, when theory would not be wanting, or the facts are obscure and entangled, imperfectly defined, when the theory, if wrongly obtruded by the Medical witness, will prove totally without influence on the minds of the jury. To this fragmentary notice of the subject of skilled testimony in cases of lunacy, I must limit myself on the present occasion. I have merely glanced at some without even remotely pretending to have exhausted the consideration of any one of the numerous fallacies of the opponents of such testimony; but I think I have said enough to make it at least strongly probable that the commonly paraded objections would not have taken the form of practical and active opposition had they not been sustained and encouraged by some form of support in the background, and that support I believe to be furnished by the prevalent notion, probably specially prevalent in the Legal profession, of the non-scientific or feebly scientific character of our pursuits. In its general relationships to the march of civilisation, how is Medicine regarded by the lay world? First, let us ask ourselves what are likely to be the claims of Medicine in regard to the civilising process, and what in general terms may be set down among its actual civilising achievements? It cannot apparently be questioned that civilisation has been the highest where intellectual development has obtained its maximum. This seems to be predicable, not only of different countries compared with each other, but of the same country at different periods of its own social evolution. The history of the world points to a direct ratio between vigour and buoyancy of national intellect and activity of material advancement; but the vigour of intellect could only be practically useful in so far as it is used for the discovery of the truth of things. Truth, then, is the real factor of civilisation. In proportion as it is worked out, so has advanced or will continue to thrive civilisation. Now, Medicine has, except in the rarest instances, exhibited itself in the van-ground in the honest search after the truth of Nature as she is. To the Medical philosopher truth, irrespective of the consequences to which its discovery may seemingly or really lead, has ever been the ultimate object. In this aspect the calling he exercises, as also the method and manner of knowledge on which that calling rests, stands at the absolute head of human pursuits. Contrast him with professional theologians, ever dreading lest some new revelation of Nature's ways may falsify some cherished dogma, and consequently oftentimes exercising his fullest influence to thwart the demonstration of those laws the Creator has designed for the regulation of the universe. Remember Galileo! See of what dignified honest life Medical work is composed in comparison with the professional advocate, who starts on his career with the fact staring him in the face that on the doctrine of chances one-half of his future years must be passed in advocating error and making the worst appear the better reason. What intellectual training is that of the Medical observer compared with that of the diplomatist, the quality of whose aspirations after truth may be gathered from the well-known apothegm of one of the most successful of his class, that the use of language was to conceal our thoughts. Compare the Medical thinker again with some self-elected teachers of psychical philosophy, who, revelling in the wantonness of undenied intellectual power themselves, write "Strange Stories," well fitted to shake the foundations of belief, to destroy all perception of the differences between the real and the unreal in persons of feebler organisations than themselves.

It seems impossible, then, that in intellectual guidance and in civilising influence the Medical philosopher could do otherwise than hold a high place to take other rank than amid those bands of inquirers who search for primal truth, fearless of consequences, among mathematicians, moralists, political economists, statisticians, amid the foremost, though often unseen movers in the march of progress. The civilising influence exercised by the Medical Profession in maintaining the bodily vigour of the individual citizen, in suggesting and perfecting the means to his physical development, in securing a healthy mind in a healthy body, in promoting measures of State utility wherever considerations of public health justify his interference, occasionally modifying the penal code in the sense of mercy, have ever been seen by all. Less obvious, but not less real, is the truth that Medical inquirers have been pioneers and leading to the general adoption on the numerical, moral, social and political inquirers, the utility, nay, the necessity of which appears to have been first seriously felt through the proofs given by Louis that pathological facts which from their nature seemed to be unsusceptible of the process might be made the subjects of numeration and so forced to furnish inferences of deep practical significance unattainable by any other means. But I believe the unseen, intangible, underlying influence of the earnest truth-seeking quality of Medicine plays a yet loftier part than any of its overt achievements of promoting the great cause of civilisation. Still, Gentlemen, all this has been little recognised. Within our own ranks there have been few to receive it. Occupied with effecting a progress rather than estimating its mechanism, we have said little of our own claims as human civilisers. Lay notices, especially in this country, of the part we have played have been, as might be expected, from much that has been already said, to the last degree scanty and unsatisfactory, but a lay historian has at last appeared upon the field, who has not only himself felt, but has endeavoured to make others feel, that medicine *quoad* civilizing influence has not existed in vain, has not been cultivated by some of the greatest among ancient and modern observers, of thinkers without, in some measure, embracing cotemporary civilisation. Henry Thomas Buckle, in the introduction to his vast proposed survey of the influence of human knowledge on the material progress of man, has assigned its place to Medical philosophy in contributing to the civilisation that we glory in to-day. To Buckle, indeed, we are indebted for first giving warrant, in print, to the idea of a history of Medicine in its relationship to civilisation, and probably in no pages of his immortal work does that philosophic eloquence which marks its style, that fitness of expression to ideas, such fitness that no word can be changed without weakening the force or making the sense less definitely clear, set forth in stronger relief than in some of those devoted to Medical questions; and yet did not Buckle, with all his original genius, with all his keenness in seeing the reality of things, and separating the substance from the shadow, with his faculty of reasoning, now suggestive, now exhaustive; with his power of judgment, at once brilliantly acute and logically sound; yet did not Buckle, with all these high endowments, avoid error in dealing with matters Medical. And, as it appears to me, his mistakes are traceable especially to two causes, to which reference has already been made; and further, as his falling into these mistakes furnishes apt enough illustration of the views I have taken of their ordinary manner of causation, a very few words concerning their actual nature will not be misplaced. In the first place, Buckle's was an eminently deductive mind. In every stage of his argument this quality forces itself upon the reader. He starts from speculative opinions, then seeks for facts whereby to sustain and verify them. Well and good! capital! excellent! so long as the facts are of the kind desired; but when facts of an awkward kind present themselves, either in their own intrinsic simplicity or through their connexions with consequences hostile to the deductive base of operations, as it may be called, Buckle has no compunction about throwing them aside as if they were false or valueless. For instance, hereditary influence is a fact standing inconveniently in the way of certain dogmata: its reality is at once denied, and so one of the plainest experimental results in the whole domain of biology, healthy or morbid, is set at naught. Again, it happens to be incompatible with certain views of the causes of great political theological events that the influence of race should be recognised: race is contemptuously thrown on one side; race, that element in the compound condition of man's existence to which an unbiassed survey of the events of history gives a leading place among the rulers of destiny, is spurned as scarcely playing even an insignificant part in the drama of the lives of nations. In the second place, Buckle wanted special knowledge; he had not been trained in the observation of disease at the bedside. He had read of it, he had mused on it, he had not observed it; and it is a beautiful study for ourselves to see to what extent a man of enormous intellectual force can reach in the comprehension of disease without having actually watched it. I know no more beautiful study than Buckle's book whatever. To this want, combined with the deductive learning of his mind, must be ascribed his lending his influence to the sustainment of that, as it appears to me, grave fallacy, that pathology may be manufactured out of physiology prior to experience. Technically ignorant and deductively acute, he would have no difficulty in admitting that the combinations of disturbed dynamisms, and changed structure which make up disease, might be framed *ad libitum* prior to experience out of elementary data of healthy anatomy and physiology. The experience of a few weeks in the wards of an Hospital would have taught him a different lesson; he would have recognised that all important though physiology be, its scientific function, *quoad* its pathology, is a humbler one than that of creating; he would have found that physiology supplies a standard of comparison for morbid conditions, that it may furnish explanations of those morbid difficulties as they arise, and that it may suggest subjects for clinical inquiry. But he would have found that creative faculty it has none. Still, in glancing at these shortcomings of Buckle, in respect to certain points of Medical logic and philosophy, let us not forget our debt of gratitude toward him. It is a singular fact—I make the statement defying contradiction—it is a singular fact that the deep influence exercised by Bichat on the advancement of scientific medicine, and through the sciences of observation in general, has never been so clearly defined, still less so eloquently expressed by any Medical writer as by Buckle; nor has the genius of Hunter ever received a nobler tribute than that raised to his memory in the fervid pages of the lay historian. Here, Mr. President, is not the place to chronicle the life of Buckle, to analyse his original gifts of mind, to marvel at the variety and profoundness of his scholarship, to hold up for the well-nigh worship of the young, his power of concentrated and enduring toil, his self-denying existence of student seclusion, to sympathise with his scorn of sycophancy to the accidentally high placed who have greatness thrust upon them, to ring the echoes to his Saxon devotion to glorious liberty, or to mourn in bitterness of grief over that untimely death, fatal to the completion of, perhaps, the grandest literary effort ever conceived by the mind of man. But this is the legitimate place to speak of Buckle in the aspects, a moment since referred to. Buckle has in truth bound himself to us, he has bridged over the chasm that separated the Medical from the rest of the scientific world; he has made clear to all, whose understanding is not thoroughly obtuse, that there is something lofty and ennobling in the study of the human structure in health and disease, that it involves forms and varieties of inquiry almost co-extensive with human knowledge, both giving and receiving in all conceivable directions. Finally, Mr. President, I have endeavoured thus to show to what causes the evident progress of modern Medicine is substantially and in ultimate analysis due, and it appears from the limited survey undertaken that these causes are of the most promising kind for the future of our science. Medicine has, in truth, not advanced of late years from the exceptional achievements of any single individual gifted with extraordinary powers. Were it so, the continuance of progressive movement could not legitimately be looked for, as Providence but rarely sees fit to create specimens of the highest attainable power. No; our advancement has sprung from the substitution of one true for many false systems of duty, of one true system which is capable of being efficiently wielded by that multitude of men, no doubt with well-marked intellectual aptitude, honesty of purpose, zeal of character and vigour of will, who are day by day added to the ranks of Physic, earnest workmen for humanity's good. And I have also produced some evidence that the importance of Medicine as a portion of the vast edifice of human knowledge is beginning, not only to be vaguely guessed at, to be lightly and passingly touched upon, but to be seriously and systematically stated by laymen of the deepest read and most brilliant quality of thought. By this recognition of the nobleness of our studies, we are raised in

the social aspect, and a worthy, kindlier reciprocity of scientific interest between ourselves and the world of other professions for ever ensured. Our civilising mission is acknowledged and proclaimed, and so when we look around on other pursuits and watch the men engaged in them, while we admire the toil and sympathise with the toilers, we need feel no discontent with our own, we need not regret that we fill a place in the bands of those who strive to lighten the mighty weight of physical and mental woe that afflicts our kind, but with something of the earnest and exalted pride that in his art animated a Correggio, each of us exclam as we ponder over the achievements of our years, "And I, too, tread the paths of Physic."

Professor Bennett (Edinburgh) rose to move a vote of thanks to Dr. Walshe for his able and eloquent address, which he eulogised in the strongest terms. He adverted, however, to the lecturer's expressions in respect to observers and the deductive method, and thought that justice had scarcely been done to the great men by whom the principles had been developed. What, after all, was the faculty of observation, the power of collecting facts, compared to insight of genius and the perception of law? He appealed to Harvey, to the *genius loci*, if he might so speak—the preparations relating to whose discovery were now before his sight—and asked, had not the deductions of this one man done incomparably more for Medicine than all the laborious efforts of those who had preceded him? With the exception that he could scarcely go with Dr. Walshe in his high estimate of mere fact collectors, he very warmly applauded his address. After alluding to several other instances in which the discovery of new laws had been immediately followed by splendid results in the application of those laws to practical subjects, he expressed very confident hopes that Medicine would, before long, be able to take its place amongst the exact sciences. In eloquent terms he exhorted all to strive towards this result. In concluding, he adverted to the position at present occupied by the Council of Medical Education, and expressed much disappointment that more had not been done towards the adoption of some uniform system. He begged the Council, in the name of the Association, to remember their responsibilities in this matter, and at once address itself to its most important duty.

The vote of thanks to Dr. Walshe having been carried by acclamation, Dr. Walshe said a few words in reply. He hoped Professor Bennett and the meeting would do him the justice to believe, that in speaking highly of observation as a means of advancing, he did not mean unskilled observation. It was, of course, only when the facts collected were brought into contact with mind that any results could be looked for. He was reminded of what had once taken place in the ward of a Paris Hospital. M. Velpeau had occasion to reprimand a nurse for having disobeyed his directions, and she replied to the effect that having been twenty years nurse in that Hospital she ought to know something. "It is true, madam, that you have been twenty years in this ward, so has that stove, but it has not learnt much."

The meeting then adjourned for refreshments, after which

Mr. Ernest Hart gave a summary of his paper

ON THE SUCCESSFUL TREATMENT OF ANEURISM BY THE FLEXION METHOD.

He regretted that the very limited time which the Society could allow him did not allow of his entering in detail on the subject. He briefly adverted to the chief features of his plan, which consisted in bending the limb so as to retard the flow of blood in the aneurismal sac, and allow of its coagulation. It might, he observed, be considered the natural method. He mentioned several important examples of success, all of which had, he said, been already published, so that he regretted less he had not time to read them in full. He also expressed a hope that the flexion method of retarding the circulation in an extremity, might be found useful in certain inflammatory diseases. Indeed, he had himself already treated with benefit some cases by that plan. The next business brought before the association consisted in reading the

TWENTY-SEVENTH REPORT OF THE MEDICAL BENEVOLENT FUND.

Mr. Toynbee, the Treasurer, read the report. He said that he had the pleasure of being able to state that never was the fund in so prosperous a condition. The balance-sheet showed that during the year a sum amounting to £1304 had been received, and with the exception of £192 in the banker's hands expended. This was for the "donation account" alone. For the annuity account a sum of more than £4000 had been received, the greater part of which had been devoted to the purchase of Bank stock.

The adoption of the report and balance-sheet was moved by Mr. Heckstall Smith, who adverted to the simplicity of the means employed by the Society as one of its greatest recommendations. He had known instances in which a single letter of application and one of inquiry had been all that was needed to obtain efficient relief.

Mr. Propert seconded the resolution, and in warm terms commended the fund to the liberal support of the Profession. There was no rivalry between it and the Medical Benevolent College. Both were working in a common cause of charity and benevolence.

THIRD DAY, THURSDAY, August 7, 11 A.M.

Papers were read by Mr. Solomon, Dr. Farr, and Dr. Budd, of Bristol. Abstracts of these Papers will be given in the next number of this Journal.

THE ADDRESS IN SURGERY.

Mr. Paget said that he had chosen, as one of the most important Surgical subjects, the treatment of patients after operation. He would, in the first place, lay down as a law, that recovery after injuries is generally a natural process. We are so constituted, that injuries bring about their own amendment. We are fitted, not only for the calm, but for the storm of life,—in fact, for all probable injuries; and amongst these are the injuries of Surgical operations. Yet, whatever may be our faith in natural recovery, there are many things left to do. One great object is to obtain as speedily as possible rapid union; for, when wounds are unhealed, pyæmia, erysipelas, and many other of the sore plagues of Surgery are apt to follow. In this process to healing, what we can do to help may be summed up in two words—repose and cleanliness. Quiet, not only of the parts injured, but of the patient, in every circumstance and detail; and cleanliness of air, water, and everything around him. The Surgeon's necessary interference should be of the gentlest kind, the softest touchings, and the most careful handlings,—more than these spoil the best Surgeon's work. To carry out fully cleanliness, baths, general or local, frequent change of dressing and not of bed linen, but of beds and change of wards in Hospitals or rooms in houses. Mr. Paget next spoke of shock and reaction. Death from shock was rare, and he believed that reaction was never fatal, for reaction was not a disease. It was rather an example of the peculiar power of our bodies to return to health. Reaction in inorganic substance was always equal to the original force applied, but in the living organism it was greater. If the heart were depressed it tended to beat more strongly in reaction. Where muscle became depressed below a healthy standard, it tended not to return to healthy vigour only, but to become hypertrophied. However much, he said, reaction may simulate disease, we must consider it as really representing health. Although there is thus a natural process to recovery, there are yet many things left for us to do. Questions often arise for the relief of this and that difficulty. By cleanliness we shut out many a danger from without, and also by careful regulation of diet. Mr. Paget ventured to think that public opinion which, many years ago, was inclined in one extreme, and which, three or four years ago, was in the other, was now in moderation in respect to the dietetic management of patients after operation. He then related one case showing a good and speedy recovery after severe operation, attended with loss of blood, upon a most sparing diet. The operator ascribed the good results to abstinence, and said that the diet could not be too low. Lately he had seen wine and brandy given in large quantities, and he had little doubt that these cases recovered just as quickly. This he did not think due to any change of type in disease, or any special circumstances, but to the natural tendency to recovery, a tendency generally so certain that neither surfeit nor starvation could avert it. He made these remarks, not believing that diet had nothing to do with the patient's recovery, but as strong tests of the natural process of recovery. Having made this clear, we could now try to treat our patients on rational principles without unwise interference. Here Surgery has made a contribution to the natural history of disease. The question is often asked, what is the natural course of cases

left to themselves? Surgery has answered this question to some extent in cases of injury. By doing little we do not diminish the patient's chances, but rather help them. Midwifery in former times was meddlesome, but now the Accoucheur never interfered unless obliged, and yet the practice now-a-days is as successful as ever. It is half-informed ignorance, that from audacity or fright attempts to interrupt the course of Nature. It would be very desirable, Mr. Paget said, most minutely to note the symptoms arising in the course of recovery after Surgical operations; and not only in severe cases, but also where there was any mischief, however small. Much and excellent work has been done in tabulating mortality after operation, but now we ought to know not so much the whole amount of mortality as its particular cause, and not only the causes of death but also the hindrances to speedy recovery. In cases of operation for hernia, tracheotomy, trephining, etc., the operation itself does not cause death; at the most the fault is that it does not more frequently save life. Mr. Paget said that in all his experience not one had died *from* the operation for hernia, yet nearly half of them had died *after* it. These cases should not be allowed to swell the amount. In another class of cases there were, as it were, casual causes of death, the patient dying of typhus, or typhoid fever, or of scarlet fever. There ought to be great care, however, in admitting such causes of death. Mr. Paget then related an anecdote of a French Surgeon who said that he had never had a case of death after amputation of the shoulder-joint. One of his patients died, however, after this operation, but as he said, it was of pneumonia or, as we should now say, of pyæmia, and not of the operation. Mr. Paget said that he had scarcely ever seen a pure case of death from shock. They are extremely rare, and rarer than they were, partly from chloroform, and better treatment after operation. The loss of blood, the alarm and terror, and in spite of anæsthetics the violence to the nervous centres, each require separate consideration. But when all concur it is difficult to assign its share to each, and yet it is necessary to study them and their individual effects. Since the introduction of chloroform it has, he thought, been the habit to attach too much importance to the loss of blood in producing shock, and too little to the shock of the nervous system, which shock is felt although masked by anæsthetics. In the treatment it is enough to maintain life at the lowest level, and desirable to do it with the smallest amount of stimulants, and wait for reaction. The recovery from shock is not steady, but vibratory,—the patient is now better, now worse, although, on the whole, tending to recovery. He doubted whether death from reaction ever occurred, and he doubted even whether acute traumatic fever is ever fatal. The greater evil is when reaction is not complete, when it is faulty or too long delayed. Then the patient cannot be left alone, reaction must be accelerated by stimulants. Then again, hurried reaction with disorder and delirium,—action without power,—is a perilous condition. This condition is found in the intemperate, in the anæmic, whose constitutions are more liable. The great remedy here is opium, which acts probably by restraining waste of tissue, and thus preventing the development of purposeless force. Shock falls on the whole body as well as on the part injured, and so does reaction, but they especially affect the part injured. Sometimes the part even dies, or, on the other hand, when reaction sets in, passes into acute inflammation, with no more than local harm. In case of very extensive operation, or in operation on parts essential to life, such as ovariotomy, sudden death would occur, just as death follows on perforation of the intestinal canal. Deaths from a similar cause used often to occur after lithotomy; but such deaths are now rare, and this is due to improved treatment, and because there is less active bleeding. Really the thing in these cases to be met is shock, and not the inflammation, and the treatment should be stimulants and opium. He felt that he could scarcely speak too well of chloroform in diminishing mortality from shock; and yet it had one great defect—in producing sickness. This is a most unfavourable complication: it complicates the severity of the shock, and is not controllable by medicines. Deaths often occurred previous to the introduction of chloroform after trivial operations; and probably death is now often put down to chloroform when it is really due to the shock of the operation, however trivial. Mr. Paget then spoke of tetanus, erysipelas, and pyæmia as causes of death. These complications should, he said, be studied from the general condition of the system, just as the eruptive fevers. Mr. Paget related a case in which a child after lithotomy was attacked by measles. An eruption at first appeared about the wound; but that this and the accompanying constitutional disturbance was due to measles was soon proved by the eruption extending all over the body. Just as this case was considered from the general constitutional condition, so ought cases of erysipelas and other affections following operations, although the most prominent symptoms are local. The slight local inflammatory symptoms which appear very soon after operation ought not to be mistaken for those which are more serious, and come on several days afterwards, passing into erysipelas, pyæmia, etc. The time at which these constitutional and local symptoms present themselves is a point worthy of the most careful record. Mr. Paget then spoke of the origin of pyæmia. He dwelt at some length on the phenomena of rigors, and proposed this subject as worthy of greater study than had yet been bestowed on it. He suggested that rigors should be considered in their relation to convulsions, and related several cases in point. He then passed in review the various influences affecting pyæmia and erysipelas. They were more likely to occur in the anæmic, the intemperate, in those who had lived on an excess of animal food, and especially in those who suffered from granular degeneration of the kidney. Yet pyæmia would occur in those previously healthy. It would sometimes occur in its worst form in the best homes of the wealthy as well as in Hospitals. There was still great obscurity as to the cause of pyæmia. It was a subject well worthy of the most minute attention, and not only in cases in which the disease was acute and fatal, but also in simple and less acute cases. There had been lately, Mr. Paget said, great decrease in mortality, but still further reduction was to be earnestly sought. After Surgical operation by the knife there was still great risks to life, and consequently we hear now and then from abroad of such barbarous substitutes as amputation of limbs by caustics or by the écraseur. Mr. Paget then referred to the small mortality after amputation in the Radcliffe Infirmary, Addenbrooke's Hospital, and the Hospital at Exeter. He hoped that by great care and further study the general mortality would be still further reduced.

Mr. Hey proposed and Mr. Hodgson seconded a vote of thanks to Mr. Paget for his able address. It was carried unanimously.

Dr. George Johnson is, we hear, appointed to the chair of Medicine at King's College. The Professorship of Materia Medica thus becomes vacant. We have already heard the names of several gentlemen mentioned who are likely to come forward. Amongst them is Dr. Semple, a gentleman well known in the literature of Medicine, and who by the recent regulation of the governing body of the Apothecaries Society where he has long been an Examiner, is now eligible for appointment to a Professorship in a Medical School.

Sickness on the Fleet.—An unusual amount of sickness prevailed among our men while the fleet lay off Vicksburg. On one vessel twenty men out of ninety-two were prostrated by disease. Intermittent fever, degenerating into typhus, was the more common disorder, but cases of scurvy were numerous. Our informant was attacked by fever, and lay helpless alone a week, when he was granted leave of absence, it being supposed that he could not long survive. He then left for the North, performing much of the journey upon an Hospital boat. He had not been long a passenger on that vessel, where a liberal supply of wholesome and nutritious food was furnished to the sick and wounded, before he began to rally; and when he had arrived at Cincinnati he was nearly recovered. The cause of this illness must be attributed to the insufficient and unwholesome food which was supplied to the men on the fleet. The heat, too, was excessive, the thermometer ranging from 100° to 105° in the shade. But the heat did not create sickness; it was the famine. Only two supply boats reached Vicksburg from New Orleans during the month, and at one time the advance fleet actually abandoned the place and set out down the river in quest of provisions. At Natchez they fell in with a supply vessel, which partially relieved them. The bread served out to the men on the fleet was of the most execrable kind. It was a species of hard biscuit, alive with maggots. In addition to this, there were rations of salt pork of the worst kind, and beef unfit to eat.—*New York Evening Post, July* 18.

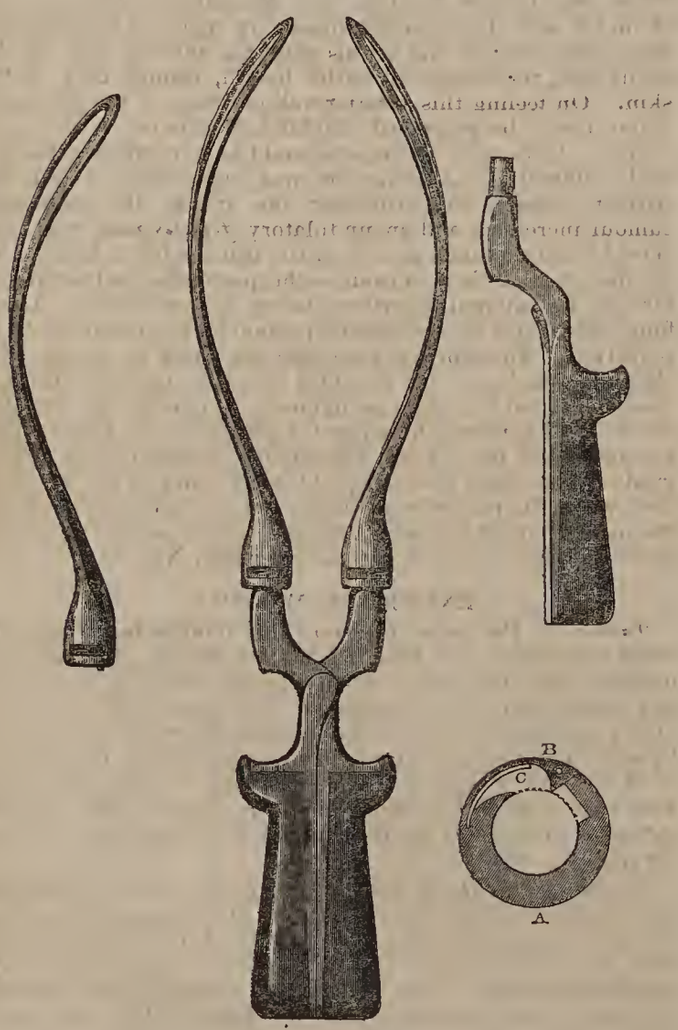
NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

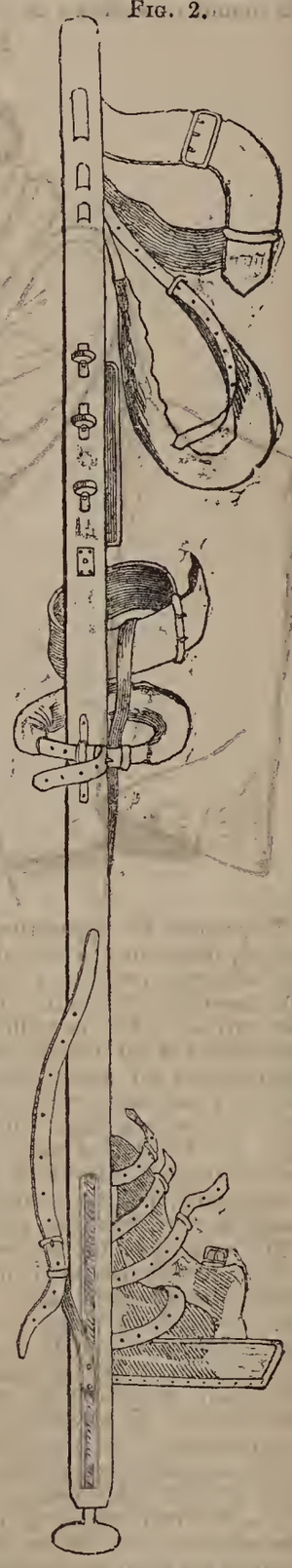
In my notice of this week, it is my intention to refer to some of the instruments which are exhibited or invented by members of the Profession. I much regret that instances of this kind are not more numerous than they will be found to be; and I fear that a peculiar sense of professional dignity (in my own opinion a very mistaken one) has deterred many Surgeons from contributing, as I almost feel they were bound to do, to the Exhibition. A few have had the courage to conquer the prejudice that exists in this matter, and among them is Dr. Cappie, of Edinburgh, whose obstetric forceps (Fig. 1) I am now about to describe. In this instrument the blades and the handles are separate, the latter being furnished with a projecting piece which accurately fits into a socket contained in the former, the two portions being made to unite by a bayonet-joint. There is a notch on the inner surface of the socket, which receives a small knob which exists on the projecting part (or nipple) of the handle. When this latter has been inserted as far as is possible, the small knob is opposite a small slit in the socket, which extends round for about one-fourth of its circumference: by giving the handle a quarter turn, the knob slides along the slit until it rests on the solid part of the socket. To prevent the handle from turning back, a catch falls, and holds it firmly. A section of the joint is shown in the wood-cut. The catch B is considerably levelled, and moves on a pivot, its thin end being kept up by the spring C, which is inserted into the edge of the socket. The spring is composed simply of a flat piece of brass, which possesses

Fig. 1.



sufficient elasticity to keep up the end of the catch, and does not rust nor break easily. When the nipple is first inserted, the knob is opposite the thin end of the catch, and as it is rotated it raises the thick end and depresses the spring. As soon as the knob has passed the edge of the catch, the latter falls in behind it, in consequence of the spring raising the further end. To disjoint the parts it is simply necessary to depress the spring and rotate the handle backwards. When the instrument is being employed, no strain whatever is thrown on the catch; when compression or traction are exercised, all the force being exerted on the solid part of the socket, each handle is made to fit either of the blades, which are of the form and proportions of those of Simpson's long forceps; the shape of the handles having been modified so as to afford a convenient grasp to the hand. Dr. Cappie claims, and very justly, the advantage of portability which his instrument possesses; a double pouch of chamois leather for the blades, and a single one for the handles, being all that is required to contain them. So that while it is as portable as the short forceps, it possesses the leverage and other advantages of the longer instrument, and it also has this further merit, that the blades can be applied either before or after the handles have been attached to them, which now and then allows the instrument to be employed without bringing the body of the patient over the edge of the bed, or even otherwise disturbing her position.

Fig. 2.



These undoubtedly are advantages, and although I have never employed Dr. Cappie's forceps, I am inclined to speak favourably of the ingenuity of their construction, although the specimens which he now exhibits can hardly be considered to be even a moderately good example of manufacture.

Fig. 2 represents Mr. Bulley's splint for the treatment of fracture of the thigh. This gentleman, finding that extension made at the foot alone had produced in several cases a consecutive weakness of the knee-joint, in consequence of the long-continued stretching of its ligaments, adopted the plan of dividing the traction between the foot and the broken femur, as represented in the illustration.

The splint itself is a modification of Boyer's, in which extension was made only at the foot piece; but in Mr. Bulley's apparatus, a portion of the force employed is brought to bear on the lower portion of the femur by means of a circular band which passes round it, and is attached to a strap which is fastened to the foot-board. By this means an amount of extension is exerted on the femur itself, equal to that which is inflicted on the foot. Mr. Bulley's splint has another advantage, viz., that by means of a small splint fastened inside the long one, and regulated with the greatest exactness by means of three screws (shown in the diagram), pressure on the fractured bone can be exerted so as to keep it in a straight line and prevent the *excurvation*, which not uncommonly follows these accidents.

The whole apparatus forms one of the best splints yet

constructed, and I commend it to the notice of the Profession. Mr. Clover's chloroform inhaler is shown in Fig. 3. This instrument has been contrived in order to regulate with precision the mixture of air and chloroform vapour, and to limit the proportion of the latter to four and a-half parts in a hundred. It consists of a bag made of air-proof cloth, which has a flexible tube leading from it and connected by means of a bayonet-joint with a mouth-piece. This latter is furnished with two valves made of thin plates of ivory supported by spiral springs, and contained in a sort of box, in order to prevent them from getting out of order, which render it impossible for the patient to breathe the expired air a second time. The bag is suspended from the collar of the administrator's coat, so that it does not interfere with the operator and his assistants,—the tube passing over his shoulder, as shown in the wood-cut.

Fig. 3.

To prepare the apparatus, a bellows, in shape like a concertina, is fastened to the edge of the table. The nozzle of the bellows is fitted to a metallic box, and the latter to the inhaling-tube, the mouth-piece having been removed for the purpose. The metallic box is arranged to secure the evaporation of all the chloroform supplied to it, every time a bellowsful of air passes through it. It contains a metallic bottle for hot water, which is covered with blotting-paper, to distribute over a large surface the chloroform which falls upon it. The lid of the box is perforated by a short tube lined with cork, into which a glass syringe fits. The syringe is graduated, and its capacity is limited to forty minims by means of a screw-nut on the piston-rod.

The capacity of the bellows is 1000 cubic inches, and while this quantity is measured and forced through the evaporating vessel with the left hand, 40 minims of chloroform (the equivalent of 45 cubic inches of chloroform vapour) are supplied by means of the syringe by the right. This process is repeated three or four times; all the chloroform is found to have been evaporated by the air passing over it, and, consequently, the mixture of chloroform vapour and air is in the proportion of four and a-half parts in a hundred.

Although atmospheric air at 60° will take up nearly three times as much chloroform as this, yet the proportion alluded to is sufficiently strong to render any person insensible in four minutes, and can be breathed without producing any spasm of the expiratory muscles. It would, perhaps, be better for the patient to commence with an atmosphere of one per cent, and that its strength should be gradually increased to four and a-half.

In order to dilute the vapour there is an aperture in the mouth-piece, large enough to admit as much air as is wanted in ordinary respiration. This aperture is left open at first, and when the patient has gained confidence and breathes freely, it is gradually closed by moving a sliding plate. Anæsthesia having been induced, the aperture is again opened to about half its full size, so that the patient then breathes an atmosphere containing about one and a-half per cent., which is sufficiently strong to keep up perfect insensibility.

This is, undoubtedly, the safest instrument which has yet been devised for the administration of chloroform, and would surely be generally adopted if it could be rendered a little less cumbersome. It is, however, admirably suited for Hospital use, and I believe its inventor has employed it in a very great number of instances without the occurrence of a single accident.

47, Hans-place, S.W.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

CASE OF RUPTURE OF THE PECTORALIS MAJOR.

By M. LETENNEUR.

M. Letenneur relates this case in consequence of the rarity of the accident, and as a proof of the rapidity with which recovery takes place after subcutaneous rupture of muscle. A carter, 30 years of age, and of good muscular development, while endeavouring to stop his horse when in rapid motion, fell down on his back, the wheel of the cart passing over his left shoulder. He complained of severe pain in the shoulder and along the left side of the chest, and a tumefaction was observed in the mammary region, unaccompanied by any contusion, some slight scratches alone indicating the passage of the wheel. The point of the shoulder projected much, but there was neither fracture nor dislocation. Between the shoulder and the tumefied mammary region a very marked depression existed, and at this point the anterior wall of the axilla was, throughout its entire length, formed only of the skin. On feeling this anterior wall no traces of the pectoralis major could be perceived. Behind, the muscles remained intact. Abduction of the arm could be performed, although with difficulty, but adduction was impossible. When the patient brought the arm near the trunk, the mammary tumour increased, and an undulatory *frémissement* was perceived; and the hand placed on the tumour felt it harden for an instant and then subside,—the pectoralis contracting, in fact, on its internal insertions being approximated. About four centimètres of the humeral portion of the muscle could be perceived. The arm was kept near the trunk by means of a sling and bandage. On the third day, the arm, shoulder, and chest exhibited abundant ecchymoses, and on the seventh day the interval between the separated portion of the muscles had become filled by a hard, voluminous, rounded body. This gradually assumed a more equable shape, and on the fifteenth day, when the patient was discharged, he had recovered all the movements of the arm, although unable as yet to perform laborious actions with it.—*Gazette des Hôp*, No. 14.

EXCERPTA MINORA.

Tannin in Puerperal Pyæmia.—M. Woillez has communicated two cases to the Hospital Medical Society, in which the internal administration of tannin has proved very serviceable in puerperal purulent resorption. The general febrile symptoms coming on five or six days after delivery, were followed by multiple subcutaneous abscesses, especially in the vicinity of the joints. Sulphate of quinine seemed rather to aggravate than relieve the symptoms, but tannin, given to the extent of nine grains per diem, acted very beneficially.—*Gaz. des Hôp.*, No. 81.

Fracture of the Hyoid Bone and Thyroid Cartilage, supposed to have resulted from Throttling.—Dr. Helwig relates the case of a woman, aged 66, who was found dead in her bed, shortly after having been seen alive. Numerous marks of injury existed about the face and neck, and, on examination, a fracture of each *cornu* of the hyoid bone was found. The left side of the thyroid cartilage was also fractured in its entire length, as well as in the transverse directions. Neither blood nor serum was effused beneath the mucous membrane, although slight

bloody infiltration was observed amidst the neighbouring soft parts. Both the hyoid bone and the larynx were considerably ossified. The cause of the occurrence was never discovered, but the experts concluded that it arose from throttling. Dr. Helwig refers to most of the few examples of this fracture which have been recorded.—*Casper's Vierteljahrschrift*, 1861, No. 2.

Removing the Taste of Perchloride of Iron.—M. Guibout, giving an account at the Paris Medical Society of the success which he had derived from the topical and internal employment of the perchloride of iron in diphtheria, mentioned that gargling the throat with milk is an excellent means of removing the disagreeable astringent taste left by this salt. The milk, however, should not be swallowed when the dynamic properties of the perchloride are sought to be obtained, as it causes the decomposition of this substance.—*Bull. de Thérap.*, June, p. 551.

Alleged Production of Angina Pectoris by Excessive Smoking.—M. Beau, in a communication to the Academy of Sciences, founding his opinion upon eight cases which have come under his notice, expresses his conviction that the abuse of tobacco may in some persons give rise to the symptoms of angina pectoris. He says that his opinion is corroborated by the results of M. Claude Bernard's experiments, who found that on introducing pure nicotine into the bodies of animals, fatal phenomena, analogous to those of angina pectoris, were produced. In order that the affection may manifest itself in smokers, various circumstances must concur which are not often met with together. The person must make an excessive use of tobacco, possess a special susceptibility, and have been subjected to debilitating conditions (as fatigue, grief, disordered digestion), which prevent his expelling the matters of the tobacco that have become absorbed and accumulated, so that the nicotine is sufficiently abundant to exert a poisonous effect on the heart.—*Gaz. des Hôp.*, No. 70.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, July 31.

OVARIOTOMY IN FRANCE.

I very much regret to say that the patient upon whom M. Nélaton performed ovariotomy some time ago, and who was, to all appearance, cured, suddenly died of tetanus on the twenty-ninth day after operation. The post-mortem examination was made thirty-six hours after death, when decomposition of the organs had already commenced. The cicatrix of the incision had remained closed until the last moment; the peritoneum was quite healthy, and there was no extravasation of blood nor pus in the pelvis. The bladder was, as it were, divided in two halves by the pedicle of the tumour, but there had been no difficulty of micturition during life. Of the three ligatures of arteries which had been left in the abdominal cavity, only one was discovered in the epiploon; but the two others could not be found anywhere. Whether they have been at all instrumental in causing tetanus, it would be difficult to say. M. Nélaton has lately had another case of ovariotomy, and the patient is at present (viz., the third week after operation) in a most satisfactory condition. Nevertheless, the Professor did not feel justified in relating the case to the Academy as so far successful, seeing the unexpected issue of his first operation. At the next meeting of the Academy he intends reading a paper on the indications for ovariotomy, which is looked forward to with much interest, and will probably give rise to an animated discussion on the subject. Although the ultimate result of M. Nélaton's first case will no doubt be looked upon by the adversaries of the operation as an argument against its legitimacy, the impression made upon the Medical Profession here by the favourable results obtained with it in England is so great, that ovariotomy will certainly survive all the attacks which may yet be made on it in this country or elsewhere.

GRAVES'S DISEASE.

The passage *d'armes* between Messrs. Trousseau and Piorry, on the subject of exophthalmic bronchocele, which commenced last week, was continued on Tuesday, and reprisals were freely taken on both sides. M. Piorry stigmatised his adversary as a Professor of rhetorics who had become Physician, blamed the absurd terms employed by him, denied that the malady under consideration was a special disease, and threatened, to the great fright of his colleagues, that he would on some future day enter fully into the principles of Medical nomenclature and organographism. M. Trousseau, in reply, spoke very pointedly of certain "crumblers" in pathology, persons who go about scraping and scratching for symptoms and lesions, and invest them with unmeaning names, but are unable to see any connexion between the several symptoms, or to recognise a pathological entity. M. Piorry then jumped up again; for the rules of the Academy unfortunately do not prevent the same speaker from addressing the assembly more than once on the same subject. He was, however, cut short in his reply by the advanced hour, and it is the fervent wish of all who are interested in this discussion, that he may rest satisfied with having had his say twice over, and that he may no longer intrude upon the Academy by his tedious, although well-meant harangues.

ON MARRIAGES OF CONSANGUINITY.

Some time ago, M. Boudin directed the attention of the Medical Profession to the above subject, and mentioned that the bad results of such marriages, and more especially deafness and dumbness, were chiefly perceptible in Jewish families; for which he quoted the views of Dr. Liebreich, of Berlin, and of Dr. Elliotson, of London. He said that although there were no statistic documents concerning the Israelitic population of France, there was every reason to believe that the same causes would produce the same effects in this country as they had done in Prussia and England. This came to the ears of M. Isidor, the Grand Rabbi of Paris, who at once made inquiries on this subject in his flock. The result of these has been, that marriages of consanguinity are not nearly so frequent amongst the Jews as is generally believed. It is true that the Mosaic law allows of marriages between uncles and nieces, but they are prohibited by the civil law, and it is very difficult to procure a dispensation; while alliances between cousins are allowed everywhere. M. Isidor is not able to give the exact numbers of Jews in France; but in Paris there are at least 25,000 of them, amongst which only four deaf and dumb persons are to be found. This proportion would therefore seem to be not nearly so unfavourable as that given for the Jews in Prussia and England.

GERMANY.

Bonn, July 25.

ON TRACHEOTOMY IN CROUP.

In a former communication I mentioned that the stay in this place is, on account of its exposed position, very apt to give rise to diseases of the chest. The worst months in this respect are February, March, and April, during which a dry, cutting, easterly wind blows without intermission, and which causes catarrhal affections of the air-passages. Diphtheria was very rare in former times, but within the last five years it has considerably increased in frequency. It often happens that diseases merely seem to be more frequent, because more attention is paid to them on the part of the Medical Profession; but such is not the case in this instance, as not only the experience of the most distinguished Practitioners, but also the clinical records kept in the University Hospital, conclusively show diphtheria to have gradually increased here. It is quite true, however, that the diphtheritic affection of the conjunctiva which we have also now and then met with within the last few years, has escaped observation until it was so well described by Professor A. Von Graefe, of Berlin. It would be very difficult to say why diphtheria should have been on the increase of late. Certain members of the Profession are at once ready with the explanation that the *genius epidemicus* has changed. But what sort of thing is this *genius?* If the prosperity of the country generally had diminished, it might be thought that bad living, impaired nutrition, etc., had augmented the disposition to inflammatory diseases, which are, on the whole, more frequent in badly-nourished persons. No such thing, however, has happened; for prosperity is, in the whole of the Rhenish province, considerably and steadily on the increase, chiefly in consequence of the large development of the iron and coal trade, which has taken place of late. Pauperism has decreased in a corresponding ratio,

besides which there are more benevolent societies and institutions for the relief of distress than are really required by the wants of the lower classes.

The fact remains that croup is more frequent nowadays than it was formerly, and it is therefore only natural that the question of tracheotomy in croup should have again been discussed by our leading Physicians and Surgeons. Before M. Trousseau insisted upon the more frequent performance of this operation, it was very rarely done in Germany, and then in extreme cases only. Messrs. Roser, of Marburg, and Pitha, of Prague, have since done much to familiarise the Medical Profession of this country with tracheotomy, which has now become a very ordinary operation, and although even now sometimes slighted by Physicians, is generally insisted upon by Surgeons. Professor Busch, of this University, has repeatedly drawn attention to the results of the operation, the prejudices against which have fast disappeared. In a letter from your Königsberg correspondent, which appeared some time ago in your columns, it was said that, in that city, tracheotomy had done nothing more than to alleviate the last struggle. We have been much more fortunate with it, for out of twelve cases, recently operated upon by M. Busch, seven were saved, and only five died. I should add that all of them were of a severe character, and death appeared imminent when the operation was done. Unfortunately the parents often refuse to consent to an operation, unless the Surgeon promises a certain cure by the same, and if death results, they are always inclined to ascribe it to the operation and not to the disease. Only a short time ago, Professor Weber exhibited, at a meeting of the Society of the Lower Rhine, a specimen of the air-passages of a child, in which the false membrane, which caused death, only occupied the upper part of the wind-pipe, the lower part of which was quite healthy, as were also the bronchi and the lungs; so that the child's life would most probably have been saved by tracheotomy. In spite of all entreaties on the part of the Surgeon, however, the parents had not consented to the operation being done, and the child was left to die. The discussions which have taken place here of late on tracheotomy in croup, have led to the conclusion that it is best not to defer the operation till the last moment, but to resort to it at once, if the usual remedies should fail to afford relief.

GENERAL CORRESPONDENCE.

THE VALUE OF METROPOLITAN SEWAGE.

LETTER FROM DR. BREWER.

[To the Editor of the Medical Times and Gazette.]

SIR,—The *Times* of the 4th inst., in an article laudatory of the main intercepting drainage of the Metropolis, speaks of the discordant opinions which prevail as to the value of liquid sewage. There will be always discordant opinions upon subjects where the circumstances essential to our conclusion are not stated with precision, certainty, and clearness.

In January last, I held repeated conferences with Baron Liebig, at his house in Munich, upon the subject of utilising the sewage of this Metropolis; and it has been only because I was not willing to forestall the orderly information of the new edition of his work, which is in press, that I have not communicated the discoveries and experiments which must eventually set at rest this important discussion.

The purpose of this letter is to lay down as clearly as I can a few of the leading principles, the knowledge of which is obviously requisite to form any reliable opinion on the subject.

First. The excretion of the human animal is the substance of all the rude material which was eaten, and the progress of which through his system, whilst it has supplied him with the means of growth, has been only the going through the first process by which it is rendered best adapted for the reproduction of the raw material itself. It comes, therefore, to this, that if all the food taken by man was thrown upon the earth, and there allowed to decompose and mix with the earth, it would not eventually reproduce itself more perfectly, nor would it reproduce itself so speedily, as by passing through the body of man in the multiplied processes of assimilation, secretion, and excrementous action.

The question, therefore, of the value of the sewage of 3,000,000 of human beings in this Metropolis, is the value of the substance of all that has gone to form the food and sustenance of these 3,000,000.

Can you waste the substance of 3,000,000 of people's food without doing a serious injury to the property both of these people and of the world?

You must supply this loss by going to a foreign market and by purchasing manure from abroad; but although the command of capital renders this comparatively easy for our farmers, yet the result is that throughout the whole of Germany the price of bone-dust and other manures is enhanced; the crops are diminished, the price of corn rises, and guano and other excrementous matter become increasingly exorbitant.

If we will but look at the actual and moral result of this Metropolitan loss of its sewage, we shall be convinced that the question is one of grave consideration.

The second principle needful to be considered in order to form a correct opinion on the subject of the value of sewage, is the peculiar property which the earth possesses of absorbing and retaining nutrient matter, whether from solid or fluid sewage.

The great error which has been at the bottom of our misapprehension about the value of sewage has arisen from experimentalisers using common filtering agents to reduce the sewage to a portable consistency, and then treating the residue as the whole material of value in sewage.

Analogies are known to be very dangerous things in attempting to investigate natural phenomena. The earth is a filter, and it is something more; the earth is a disinfecting agent, and something better; the earth is a great absorber, and something far beyond. The earth has the power of filtering, disinfecting, absorbing, and retaining in such a manner as nothing but the earth could effect. Chemists must take the trouble to discard their blotting-paper and other filters; they must put aside their permanganates, and chlorates, and hydrochlorates; they must go back to the beginning, and study the wonderful properties with which Nature has endowed the earth, if they hope to come to a correct opinion on this matter.

Let us state, in few, these properties. When sewage is poured on the earth, so greedy is the earth of every particle of nutrient matter, that whether that matter be in mixture or in solution, the earth retains that matter in its passage, and allows to escape only the water, and this in a state of purity which is calculated to refresh all animal creation. The earth will not yield this nutrient matter except to the vital action of the roots of plants, and thus the new, ever-succeeding circle, which was instituted for the sustentation of animal life, begins.

With these two or three elementary principles I bring my first letter to a close, trusting that a little consideration will convince your readers that their importance is not less than their simplicity.

I am, &c.

WM. BREWER.

21, George-street, Hanover-square, August 6.

INFLAMMATORY INDURATION OF THE STERNO-CLEIDO-MASTOIDEUS MUSCLE IN NEW-BORN INFANTS.—Dr. Melchiori calls attention to the occurrence of induration of one of the sterno-mastoid muscles, sometimes met with in young infants, and not finding it referred to by other authors, he narrates four cases which have come under his own care. Soon after birth the child is found to perform certain movements of the neck with pain and difficulty, and on examination, a fusiform, indurated, plastic deposit of considerable size is found in the substance of one of the sterno-cleido-mastoid muscles. In some cases the amount of induration is very considerable, but in all those seen by the author the tumour eventually disappeared by resolution, the muscle recovering its entire action. The affection being inflammatory in its early stage, emollients are indicated, but afterwards expectation suffices. The author is unable to assign any cause for its production, but suggests that compression of the muscle, or laceration of some of its fibres may take place during parturition.—*Omodei's Annali*, Sept., p. 630.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 2.

DR. TYLER SMITH, President, in the Chair.

A Report, by Dr. HARLEY and Dr. TANNER, was read on a case of

TWIN (?) ABORTION, EXHIBITED TO THE SOCIETY BY DR. LANGMORE ON JUNE 4, 1862.

In this case a lady aborted on May 22, 1862. A fœtus, of about four months' gestation, was expelled; it was flattened, more or less atrophied, and had evidently been dead some time. The placenta was removed; and afterwards a smooth, soft body was peeled off the upper part of the uterine cavity, which proved to be a second bag of membranes. The chorion and amnion were unruptured, healthy, and transparent; and through them an embryo of about five or six weeks could be plainly seen floating in clear liquor amnii. The embryo appeared fresh and perfect, and not at all atrophied. Was this an instance of twin pregnancy or of superfœtation? Drs. Harley and Tanner were directed by the Society to investigate the question. In their report these gentlemen give the results of an examination of the preparation. They then append some remarks on the structure of the decidua, and conclude thus:—"We are led to assume that the case under consideration is an example of superfœtation, for this reason: If the second, healthy, six weeks' ovum were the product of the same conception as the first four months' fœtus, which had been dead some time when expelled, then we must believe that although the latter perished some days before its expulsion, and manifested symptoms of putrefaction, yet the small second ovum died when six weeks old, was retained for about ten weeks afterwards, and, nevertheless, when removed was perfectly healthy, and did not present any trace of decomposition. We cannot subscribe to this improbable view. As, theoretically, we see no physical obstacle to the occurrence of superfœtation during the first three months of pregnancy, so we think the specimen now reported upon proves, as far as anything of the sort can prove, that superfœtation is a positive fact."

A Paper, by Dr. NEWMAN, of Stamford, communicated by Professor HARLEY, was read, on

AN ENORMOUS DEVELOPMENT OF HYDATIDS IN OMENTUM SIMULATING AN OVARIAN TUMOUR.

A woman, 43 years of age, began to suffer from enlargement of the abdomen eleven years ago. In 1861 an incision was made in the right iliac region, when a quantity of pus and hydatids escaped. The opening closed, but the abdomen again enlarged; and the patient died in May, 1862, with symptoms of acute peritonitis. On examination, the omentum was found stretched over a mass of glistening cysts. Masses of hydatids were embedded on the surface of the right hepatic lobe. From them ran an unbroken chain of cysts right across the spinal column and down into the left iliac fossa. The right ovary, as well as the mesentery, also contained hydatids.

A Paper, by Dr. GEORGE HARLEY, was read, on

A CASE IN WHICH AIR WAS EXPELLED FROM THE VAGINA.

The chief points in the case are these:—The expulsion of the air is accompanied with a loud noise, and, although odourless, is attended with great personal discomfort. It began about eighteen months ago, at a catamenial period; and has recurred with increasing severity at each period, until now there are several discharges in the course of a few minutes. The patient is married. The vagina was carefully examined in order to find if any communication existed between it and the rectum, but none was found. Dr. Harley took a full-sized male catheter, to which was attached a long india-rubber tube with a stop-cock at the other end. The catheter was introduced into the uterus, the end of the tube with the stop-cock being placed in a tumbler of water. No air escaped when the instrument was in this position; but on placing the open end of the catheter in the vagina an instantaneous discharge of gas took place. Soon afterwards the water was found to be sucked up through the tube into the vagina; and after one or two other experiments it was found that the vagina sucked in and expelled the air by spasmodic action. It was further observed that the abdominal muscles materially assisted in producing this result; and although the patient has not the power of commencing the action, once it has begun and gone on for a few minutes, she has the power of continuing it.

Dr. DRUITT was glad to find that the phenomena of this case had been described by so acute and exact an observer, otherwise the case might have been narrated as one of physometra. He had once been consulted about the case of a lady, who, after her confinement in a hot country, complained of want of sexual feeling, and likewise of discharges of air from the vagina. He had attributed both maladies to relaxation, and prescribed cold alum baths. Air would readily enter a relaxed vagina in large quantities; for example, when a woman was placed upon her hands and knees for the purpose of examination.

Dr. GRAILY HEWITT had seen a case of the kind mentioned by Dr. Harley. The lady, to whom the passage of flatus from the vagina was very distressing, was the subject of enlargement and hypertrophy of the vaginal part of the cervix uteri. No fistulous opening existed between the rectum and the vagina. In this case Dr. Graily Hewitt considered that the air passed into the vagina by a kind of suction movement. The rigid flat roof of the vagina constituted by the indurated cervix acted as a dilator of the vagina; when during certain movements of the body the uterus was drawn upwards, air entered the vagina.

Dr. BRAXTON HICKS remarked that the admission of air into the vagina was by no means rare. It might be witnessed not infrequently in those whose vulvæ were lax and uteri heavy, when they lie down on the examining couch; the weight of the uterus causing it to fall on to the sacrum in the recumbent posture, whereby air was drawn in; while on assuming the erect position it was expelled again by the descent of the uterus.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Gentlemen having undergone the necessary Examinations for the Diploma, were admitted Members of the College at a Meeting of the Court of Examiners on the 31st ult., viz:—

Edwin Hodgson Roe, Eccles, near Manchester; James Murray, Belfast; Henry Owens, Croydon; George Robert Morris, Charmouth, Dorsetshire; John Pooley, Huntingdon; Henry Seekamp Ward, Horncastle, Lincolnshire; Henry Charles Bury, Whitstone, Middlesex; Lewis La Mert, Bedford-square; Alfred Woodforde, Plaistow; Henry Cheesman, Brighton; Howell Charles Phillips, Trinity-square, Tower-hill; John Gregory White, Ampthill, Bedfordshire; George John Blasson, Billingborough; Charles Rhodes, Addison-road, Kensington; John Sebastian Wesley, The Close, Winchester; Thomas Simpson, Boston, Lincolnshire; John Forrest, Blackburn, Lancashire; Lewis James May, West Putford, near Bideford; John Frederic Cobb, Norwich; Conrad Christopher Wimberley, Poplar Hospital; Henry Mortimer Hawkins, St. Mary's-road, Peckham; and Henry John Sharp, Cornhill-road Islington.

Admitted on the 1st inst:—

Charles Augustus Prater, Woolwich; Theodore D'Orville Partridge, York-place; Charles Eugene Nelson, New York; Joseph Connolly, Belfast; Alfred Henry Brereton, Bow; William Rayner, Stockport; Melchior John Frederick Kranz, Melbourne, Australia; and George William Noad, Wokingham.

At the same Meeting of the Court, Mr. John Keville Smallhorn, of H.M.S. *Supply*, Woolwich, passed his Examination for Naval Surgeon. This gentleman had previously been admitted a Member of the College, his Diploma bearing date October 29, 1858.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, July 31, 1862:—

William Warrener, Woburn, Beds; George Henry Maskelyne, Faringdon, Berks; Henry Nanton Murray Sedgwick, Antigua, West Indies; Charles Henry Biddle, Newcastle-on-Tyne; Charles Albert Waterworth, Newport, Isle of Wight; Fredk. W. Wright, Launceston; Walter Barker, Wantage, Berks; Edward Chas. Bury, Wisbeach; Philip Candler Shepheard, Erpingham, Norfolk; Fredk. Scott La Trobe, St. Mary's Hospital; F. W. E. Reinhold Goëdicke, 4, Albert-terrace, Notting-hill; Lionel Booth, Greenwich; Albert McDiarmid, 5, Newton-terrace, Rochester; Robt. Richards Hawkins, Martintown, Dorset; Robt. Hicks Beauclerc Nicholson, Hull.

The following gentlemen also on the same day passed their First Examination:—

Horace Cooper, Anthony C. Colborne, and William L. Barker, St. George's Hospital; Herman B. Holman, London Hospital; Anthony J. Newman, Middlesex Hospital; George Hurst Orton and Adolphus B. Great-Rex, St. Bartholomew's Hospital; John Henry Salter and F. C. P. Howes, King's College; Edwd. Thos. Blake and Wm. F. Butt, University College.

APPOINTMENTS.

Bletchly.—William Ebenezer Bletchly, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Almondbury District of the Thornbury Union, Gloucestershire, *vice* Charles Powell, M.R.C.S. Eng., L.S.A. Lond., deceased.

Bubb.—John Bubb, L.S.A. Lond., has been appointed Assistant-Surgeon (a newly-created office), to the Cheltenham and Gloucestershire Ophthalmic Infirmary.

Close.—Anthony William Close, F.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Ashton-on-Mersey District of the Altrincham Union, Cheshire, *vice* Jeremiah Renshaw, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., L.S.A. Lond., deceased.

Firth.—Joseph Thomas Forbes Firth, L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the East District, Rotherhithe Union, Surrey.

Goode.—Henry Goode, M.B. and Lic. Med. Cantab., M.R.C.S. Eng., L.S.A. Lond., has been elected President for 1863 of the Midland Branch of the Bristol Medical Association.

Granville.—Joseph Mortimer Granville, L.R.C.P. Lond. (exam), M.R.C.S. Eng., has been elected Medical Officer for the Union Workhouse, Bristol, *vice* Emilius Scipio Mayor, M.R.C.S. Eng., L.S.A. Lond., resigned.

Gull.—Mr. H. Stanley Gull, M.R.C.S. Eng., L.S.A. Lond., has been elected House-Surgeon to the Stockport Infirmary.

Hutchinson.—Jonathan Hutchinson, M.R.C.S. Eng., L.S.A. Lond., has been elected Assistant-Surgeon to the Royal London Ophthalmic Hospital, Blomfield street, Moorfields.

Lawson.—George Lawson, F.R.C.S. Eng., L.M. L.S.A. Lond., has been elected Assistant-Surgeon to the Royal London Ophthalmic Hospital.

Norton.—Mr. Arthur Treherne Norton has been appointed Demonstrator of Anatomy at St. Mary's Hospital Medical School, *vice* George Green Gascoyen, F.R.C.S. Eng. (exam.), resigned.

Wade.—Charles Albany Wade, M.R.C.S. Eng., has been elected Surgeon to the Royal Kent Dispensary (for the District of Greenwich), *vice* Henry Rowland Palmer, M.R.C.S. Eng., resigned.

Whipple.—John Whipple, M.R.C.S. Eng., L.S.A. Lond., is President for 1862-3 of the Western Branch of the British Medical Association, in succession to Charles Barham, M.D. Cantab.

Winterbotham.—Lauriston Winterbotham, M.R.C.S. Eng., and L.M., L.S.A. Lond., has been appointed Surgeon to the Cheltenham Dispensary for Diseases of Women and Children, *vice* Walter Jessop, M.R.C.S., Eng., deceased.

DEATHS.

Edwards.—August 1, suddenly, Conway Thomas Edwards, of No. 21, Brompton-row, formerly of Bathcaston, Somersetshire, M.R.C.S. Eng., L.S.A. Lond., aged 52.

Keane.—July 25, George Keane, of Chipping Ongar, Essex, M.R.C.S. Eng., L.S.A. Lond., aged 51.

Lawrence.—July 18, Henry Lawrence, of Chepstow, Monmouthshire, M.D. Univ. St. And., Consulting-Physician to the Carmarthenshire Infirmary, Justice of the Peace for the Counties of Carmarthen and Pembroke, and for the Borough of Carmarthen, aged 77.

Macintosh.—August 2, Richard Duncan Macintosh, of Dix's-field, Exeter, M.D., aged 88.

Marshall.—August 2, Thomas Marshall, of Barwood-lodge, Helensburgh, Dumbartonshire, formerly of Glasgow, M.D. Univ. Glasg, L.F.P.S. Glasg.

Mitchell.—August 1, Edward Dawson Welbank Mitchell, of Lloyd-street, Greenheys, Manchester, formerly of Newcastle-on-Tyne, Surgeon, aged 64.

Powell.—Recently, Charles Powell, of Haw House, Olveston, Bristol, M.R.C.S. Eng., L.S.A. Lond.

Traill.—July 30, Thomas Stewart Traill, of Rutland-square, Edinburgh, M.D. Univ. Edin., F.R.C.P. Edin., Professor of Medical Jurisprudence in the University of Edinburgh, aged 80.

Wagstaffe.—July 13, at Braunston House, Rugby, Warwickshire, Matthew French Wagstaffe, of Walcot-place West, Kennington, M.R.C.S. Eng., L.S.A. Lond., aged 59.

Williams.—July 23, at Kentish-town, Rowland Williams, Surgeon, aged 61.

LONDON GAZETTE.

August 1.

26th Middlesex Rifle Volunteer Corps.—Walter Dickson, M.D., to be Surgeon, *vice* McWilliam, deceased; dated July 21, 1862.

There are no Medical Appointments in the *London Gazette* of August 5.

Harvard University.—The Graduating Class.—It has been the custom for a few years past to collect many valuable statistics from the graduating class. Some public-spirited member of 1862 has done this service for her, and the record has been published in the *Harvard Magazine*. Of the ninety-six graduating, the average age is 21 years 11·5 months. The average age of classes for several years has been increasing, owing, no doubt, to the higher attainments required for admission. The average height has also increased, that of 1862 being 5 feet 8·35 inches. The average weight this year is 143·5 pounds; the average measurement round the chest, 37·1 inches; round the upper arm, 12·78 inches; and round the forearm, 10·7 inches. Nine of the members of the class are near-sighted, 51 smoke, 65 drink, 47 both drink and smoke, and 20 do neither. 1862 has been a boating and musical class. It has been victorious in every race in which it was represented, and has done much for the Glee Club, Pierian sodality and choir.—*New York Evening Post, July* 18.

The Gorilla Controversy.—M. Du Chaillu, during his late residence in Paris, has brought to the verge of publication a translation of his travels in the Gorilla country, in which the narrative of the voyage is placed in the order of actual events. The work will be published in a few weeks. Stuffed specimens of the red-rumped variety of the female gorilla and of the young male have been placed for some weeks in the large glass case with the old male, in the Zoological Gallery of the British Museum. It is said that the kooloo-kamba and nscheigo m'bouvè varieties of chimpanzee will also be shortly exhibited in a stuffed state. The specimen of *Cynogale* (s.g. *Potamogale*) *velox*, alleged by M. Chaillu to have been a fish-eating carnivore like the otter, but allied to the Maimon (*Cynogale Bennettii*) of Borneo, a conclusion in which that gentleman was supported by many zoologists, both in Europe and America, has been placed by Dr. Gray amongst the musk-rats, and erected into a new genus, described in the *Transactions* of the Zoological Society as *Mystomys*, Gray.

The Late Professor Traill.—Died, at 29, Rutland-square, on July 30, aged 80, Dr. Thomas Stewart Traill, Professor of Medical Jurisprudence in the University of Edinburgh. Another link between the scientific generation of Sir Humphrey Davy and Cuvier and our own, is thus removed. Dr. Traill did not long survive his old colleague, Dr. Alison, and by his death the University has lost its oldest Medical celebrity. Dr. Traill was a native of Kirkwall, in which parish his father was a minister. Having studied at Edinburgh, he took his degree in 1801, and in 1832 he was appointed to the chair of Forensic Medicine. He lectured to within a few days of his death. He was a man of extensive acquirement and considerable versatility. If a gap were created by the illness or resignation of any lecturer, Dr. Traill was always ready to fill it, and we believe, in turn, lectured on nearly every branch of Medical Science taught in the University. The leisure of the last years of his life was spent in editing the eighth edition of the "Encyclopædia Britannica," a task which he lived to finish. He was also the author of a work on Medical Jurisprudence. In politics the deceased professor was a staunch Whig.

The British Medical Association.—The thirtieth anniversary meeting of this Society is now taking place in this Metropolis, in order to allow its country members to visit our International Exhibition, and to receive the courtesies of its metropolitan associates. On Tuesday last they attended, in large numbers, a conversazione, by invitation from the President, Vice-Presidents, and Council of the Royal College of Surgeons of England, on which occasion the whole suite of rooms in that Institution were thrown open; the chief novelty, perhaps, was the brilliant manner in which, for the first time in the annals of the College, the three Museums were lighted up; the great danger attending this has always deterred the College authorities from making the attempt. This danger has happily been got over by the introduction of glass reflecting gas-lights, a discovery made originally, we believe, by a distinguished member of our Profession, the late Mr. Hale Thompson, who expended a large fortune in bringing it to perfection, and made of practical use by Mr. Hulett, of High Holborn, who deserves the greatest credit for the admirable manner in which the College was lighted up. The chief attraction in the Museum was a large plaster cast of the statue of John Hunter, now being executed by Mr. Weekes, A.R.A., for the Museum, and is a most admirable and life-like likeness of the illustrious deceased: the Profession has contributed upwards of one thousand guineas for it. In the Library was the usual large display of microscopes and microscopic objects one is accustomed to see at meetings of this kind, but not exhibiting any particular novelties; the walls were hung with some of the choicest works of Landseer, Millais, Cooke, Corbould, Waterhouse Hawkins, etc. Photography was well represented by charming specimens contributed by Mr. Wordsworth, F.R.C.S., Messrs. Murray

and Heath, Negretti and Zambra, and the London Stereoscopic Company; whilst Dr. Wiblin, F.R.C.S., in order to show its practical use to the Profession, exhibited photographs of a patient upon whom he is about to operate for elephantiasis of the penis and scrotum. In the Council Room were displayed several large medallions by Mr. Timothy Butler, one just executed by him of H.R.H. the late Prince Consort, for the Council of the Statistical, was deservedly admired as a most spirited and admirable likeness of the Prince: two other medallions, executed by this amiable and accomplished artist, attracted great attention from the novel manner in which they were subsequently treated by Dr. Cattell, M.R.C.S., of Euston-square, who, we believe, has a patent for metallising statuary, without in any way detracting from the sharpness of the subject submitted to this beautiful process. The refreshments supplied by Messrs. Gunter, of Berkeley-square, under the superintendence of Mr. Beale and a well organised staff of assistants, gave the greatest satisfaction to the 2000 guests assembled on this very interesting occasion.

Further Discoveries of Flint Implements in the Drift.—In the last published volume of the "Archæologia," John Evans, Esq., F.G.S., F.S.A., gives a paper on the above subject. Flint implements have been found in the Champ de Mars, Paris, at Clichy, and in the Rue de Grenelle, in beds of sand and gravel analogous to those of Menchecourt, near Abbeville; the beds are not disturbed, their average thickness is 20 feet. The implements and flint-flakes were found in a bed at the base of the gravel, from 3 to 5 inches in thickness, associated with bones of *Bos primigenius*, *Elephas primigenius*, deer allied to reindeer, and a large carnivorous animal, probably cave-tiger. These observations have been confirmed by M. Lartet and Mr. Mylne. An implement has also been found, under similar circumstances, in the gravel-pit at Précy, near Creil, in the Valley of the Oise (between Amiens and Paris), with a tooth of an elephant. At Clermont, near the Ariège, there is a deposit of gravel underlying brick-earth, at 540 feet above sea-level, and 33 feet above the stream which now waters the valley. In this gravel, mixed with bones of *Elephas primigenius*, *Rhinoceros tichorhinus*, *Felis spelæa*, *Cervus megaceros*, *Equus*, and *Bos*, have been found manufactured "pieces quartzite." Mr. Evans has picked up, at Swalecliffe, a flint implement; whilst Mr. R. Whitbourn, F.S.A., and Mr. Whittaker, of the Geological Survey, have obtained examples from Peasemarsh, in Surrey, and Horton Kirby, in Kent. Mr. Evans adheres to his original classification of these implements into, 1, flakes; 2, weapons with an acute or rounded point; 3, oval or almond-shaped implements, with a cutting edge all round. He gives a plate of twenty examples, drawn to a scale of one-half linear, as well as figures of the implements from the Valley of the Oise, Swalecliffe, and Reculver. With respect to the human remains found in cave deposits he says:—"The doubts which have been thrown upon the cavern evidence, bearing on the contemporaneity of man with the extinct mammals, are now in a great degree dispelled by similar discoveries having been made under circumstances which preclude the interference of those causes of error which come within the bounds of possibility in the case of caverns. The series of facts brought forward by careful investigators of the ossiferous caves in all countries, have, therefore, a right to a new trial at the hands of scientific inquirers, in which, probably, the verdict that has already been pronounced against them will, on the admission of this fresh corroborative testimony, be set aside."

Testimonial to the Resident Medical Officer of the Guildford Dispensary.—Mr. J. M. Bright, the late Resident Medical Officer of the Guildford Dispensary, has received a substantial proof of public respect, in the shape of a testimonial letter from the clergy and principal inhabitants of the town, enclosing the sum of fifty pounds. The following is a copy of the letter:—"Guildford, July 15, 1862.—Dear Mr. Bright,—We have much pleasure in presenting you with the sum of fifty pounds, 'contributed by a few friends who have had opportunities of observing the unwearied zeal and intelligence with which you have laboured to promote the interests of the West Surrey Dispensary and of the new County Hospital.' We append the names of those who have joined in this work, and we trust that with God's help, and by pursuing the same honourable and useful course, you may attain that position in your Profession which never fails those who give their hearts to their work. You have already experienced this result, which has obtained for you the esteem and regard of all classes, including those Medical friends who can best appreciate your care and skill in tending the sick, as well as of the poor themselves, who have benefited thereby. We wish you God-speed in your new sphere of usefulness, and remain, your very sincere friends, R. J. Shepard, Treasurer of the Surrey County Hospital; Richard Eager, Senior Honorary Medical Officer of the West Surrey Dispensary; Giffard Wells, M.A., Honorary Secretary of the West Surrey Dispensary; T. Goodwin Hatchard, M.A., Rector of St. Nicholas, Guildford; Thomas Luldam, M.A., Rector of St. Mary's and Holy Trinity; Richard Shepherd, M.A., Stoke; R. B. Matthews (Oxon), M.A., Vicar of Shalford; and thirty-five of the principal inhabitants of Guildford." Even more gratifying, if possible, than the above, was the presentation made on the same day from a number of poor persons who have experienced Mr. Bright's skill and kindness. When they heard that Mr. Bright was about to quit Guildford, they determined that they would not be behind-hand in the expressions of their gratitude, and accordingly a subscription was quietly set on foot amongst them, and carried on by persons entirely of their own class. In a very few hours 2*l.* 7s. 3d. was contributed by 91 poor people, in sums varying from 1d. to 1s. With this they purchased a set of three silver spoons, and having had his initials engraved thereon, presented them to him with a suitable address. Mr. Bright has in his possession the little book with the names and subscriptions of all these poor people set down in their own handwriting.

Fund for the Widow and Orphan Children of the late Dr. McWilliam.—We have been requested to publish the following letter. It is unnecessary that we should add one word to support an appeal on behalf of the widow and children of Dr. McWilliam:—"Sir,—We, the undersigned, have formed ourselves into a Sub-Committee to co-operate with a Committee already existing of Medical Officers of the Navy in raising a fund among the Profession generally, for the widow and orphan children of the late Dr. McWilliam, C.B., F.R.S. Dr. McWilliam was so well known as to render it almost superfluous to state that in him were combined in a pre-eminent degree all the most estimable qualities of the Medical character—Professional knowledge and sound judgment, high moral courage, great benevolence and generosity, with indefatigable zeal and industry; and these qualities shone forth during the whole course of a public life marked by many memorable and trying events. Witness his active services, intermitted only by severe attacks of fever, in various ships on the west coast of Africa, his most heroic exertions in the ill-fated expedition to the Niger, and, subsequently, his volunteer labours in investigating with such self-sacrificing zeal the yellow fever at the Cape de Verde Islands, which followed upon the fatal outbreak of that pestilence in H.M.S. *Eclair*. As Medical Inspector of the Customs during the latter years of his life, he displayed the same energy of purpose and devotedness to duty, and won the esteem and gratitude of all with whom he was associated. For his many valuable services he received, in 1858, the distinguished honour of being made Companion of the Bath. His leisure time was unceasingly given up to the advancement of Professional science. From the formation of the Epidemiological Society he discharged with unflagging zeal the duties of Honorary Secretary, and his many contributions to its *Transactions*, as well as his recent researches on the Health of our Merchant Seamen, brought before the National Association for the Promotion of Social Science, must be well known to all. When we find that a man, who thus so honourably and so usefully spent his life, has left his widow and family without anything like adequate provision, we feel that this is no ordinary case, and that in contributing to a fund for the due support, education, and respectable introduction into life of eight young daughters prematurely bereaved of a father's care, the Profession are but doing justice to their feelings of benevolence in a righteous cause. We beg to subscribe ourselves,—B. G. Babington, M.D., F.R.S., *Chairman*, 31, George-street, Hanover-square; J. Copland, M.D., F.R.S., Old Burlington-street; H. Mapleton, M.D., Deputy-Inspector of Hospitals, 6, Whitehall-yard; J. Simon, F.R.S., Privy Council Office, Whitehall; Waller Lewis, M.D., General Post-office; R. D. Grainger, F.R.S., Highgate; Ranald Martin, C.B., F.R.S., Mount-street, Grosvenor-square; J. Propert, 6, New Cavendish-street; William Farr,

M.D., F.R.S., Somerset House; William Cooke, M.D., Trinity-square, E.C.; Gavin Milroy, M.D., *Hon. Sec.*, 149, Strand, or 8, St. John's-villas, Richmond.—July 28, 1862. Subscriptions by cheque or otherwise will be received by all the Members of the Committee, or may be paid to the 'McWilliam Fund,' at the London and Westminster Bank, St. James's-square, S.W."

BOOKS RECEIVED.

Our Domestic Animals in Health and Disease. Second Division.—Organs of Circulation and Respiration. By John Gamgee, Principal of the Now Veterinary College, Edinburgh. With numerous illustrations. Edinburgh: Thomas C. Jack, 92, Princes-street. Pp. 640. 1862.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 2, 1862.

BIRTHS.

Births of Boys, 928; Girls, 866; Total, 1794.
Average of 10 corresponding weeks, 1852-61, 1612·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	610	599	1209
Average of the ten years 1852-61	588·4	570·8	1159 2
Average corrected to increased population..	..	..	1275
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	3	11	1	4	6	15
North ..	618,210	..	7	8	2	9	16	11
Central ..	378,058	..	6	10	2	2	14	6
East	571,158	4	27	16	2	8	21	20
South ..	773,175	..	7	13	4	6	11	25
Total.. ..	2,803,989	4	50	58	11	30	68	77

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·898 in.
Mean temperature	61·3
Highest point of thermometer	79·9
Lowest point of thermometer	46·0
Mean dew-point temperature	50·7
General direction of wind	S.W.
Whole amount of rain in the week	0·03 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Foreign Subscriber.—The Samaritan Free Hospital, 18, Edward's-street, Portman-square, W. The Surgical Home for Diseases of Women, Stanley-terrace, Notting-hill, W.

Society for Relief of Widows and Orphans of Medical Men.—The Management of the *Medical Times and Gazette* is always most ready to do all it can in the service of Charity. No such inducement as that hinted at would have the slightest effect.

Mr. Spencer Wells on Ovariotomy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Mr. Wells, at the close of his paper in your Number for July 26, says:—"If she recovers, which I have no doubt she will, it will give a result of 24 recoveries to 16 deaths,—a proportion exactly of 2 recoveries to 3 operations."

If Mr. Wells will kindly state the process by which he proves twenty-four-fortieths to be equal to two-thirds, he will confer a boon on many of his brethren, who are sometimes a little bothered to make recoverics aud deaths bear a pleasant relationship. I am, &c. Cooker.

[It should have been 3 recoveries to 5 operations,—a slip of the pen.—Ed.]

Pressure in Gout.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your Number for July 19 "An Hospital Physician" has given some very interesting details of the treatment of gout, in his own person, by pressure, using strapping for the purpose. A few months ago I reported a case in *The Lancet*, where I had most successfully employed pressure in acute gout of the great toe. I cased the part affected in wadding, and applied an elastic bandage first round the ankle, passing it under the instep and again round the ankle; then bandaging the foot, gradually approaching the great toe, and finally firmly binding it up in the bandage.

The fears of the patient gradually succumb till he finds such comfort and relief from the pressure that, although, possibly, a stranger to sleep for many nights, he sinks back in his chair, and quickly enjoys a deep and calm repose. "An Hospital Physician" will find bandaging, I think, a better plan of treatment than strapping. I am, &c.

Hastings, July 30. C. B. Garrett, M.D.

The Rev. Hugh Reid again.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Could you, or any of your readers, through the medium of your Journal, give me any information as to the antecedents of the Rev. Hugh Reid?

The rev. gentleman came to this town a few months since as curate, and immediately on his assumption of his clerical duties in this parish he began to quack, heavily dose, and medically advise every person labouring under any ailment that he could prevail upon to accept his officiously-given advice. He particularly, I am told, claims to be a Cancer Doctor; and a poor sufferer from this disease (the wife of a clergyman), having followed Mr. Reid to this town as his patient, has just died under his care.

I shall be glad of any authentic information as to previous doings of the rev. gentleman, as many of the respectable inhabitants of this town consider his conduct here as being inconsistent with the clerical office he holds.

The curate's salary is raised here by voluntary annual subscriptions, being aided by a grant from the Curate's Aid Society.

Leominster, August 1. I am, &c. Quæsitor.

On the Reaction of Ferridcyanide of Potassium on Morphia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In addition to the beautiful method of reduction of silver by morphia, described by me in the *Medical Times and Gazette* for July 12, by which I have coated several glasses with pure silver, I have now to notice another singular peculiarity which I am not aware has ever been observed before; viz., if a few drops of a solution of acetate or hydrochlorate of morphia be mixed with about four or five times its bulk of a solution of ferridcyanide of potassium—red prussiate of potash,—after a few hours it will have assumed a deep cherry-red colour.

I am unable to assign the cause of the discoloratiou, but have repeated the experiments several times with the like result, so that this peculiarity may possibly serve some useful purpose as a means of testing the presence of morphia. To prove that the coloration was not due to oxidisement from the air, one drachm of the plain solution of ferridcyanide was exposed in an open vessel beside another containing a mixture of that reagent and morphia, whilst a similar mixture was placed in a corked phial. In both instances a cherry-red colour was obtained; but the plain solution was unaffected, nor was any change produced with the ferrocyanide.

A few minutes' application of the heat of a steam bath rapidly induced the discoloration which, while warm, was more of brownish-green colour, becoming cherry-red on cooling. I am, &c.

The Laboratory, Cheltenham, August 4. John Horsley.

A Binocular Ophthalmoscope.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have received some communications from my friends Dr. Giraud-Teulon, of Paris, and Dr. Snellen, of Utrecht, which, coupled with some subsequent, more exact, observations of my own, lead me to the conclusion that I was in error in ascribing to my ophthalmoscope a binocular character. I believe that most of the effects I described in your Journal of the 26th ult. were really only seen with one eye at the time, and were principally due to the large reflecting surface of the mirror.

Dr. Giraud-Teulon's instrument, on the contrary, is a binocular one, (and the only one yet invented,) in the truest sense of the word. It is a most ingenious combination, that stamps its author as a man of no ordinary mind to have worked out so complex a problem, as he has done with such excellent effects. I use the instrument myself, and am quite satisfied with its results.

In conclusion, I beg to say that while I regret having too hastily committed myself to an error, I still believe and hope that the form of instrument I have proposed may ultimately acquire all the properties, which I, as it were, have but for a time perhaps only anticipated for it.

I am, &c.

August 4. J. Zachariah Laurence.

COMMUNICATIONS have been received from:—
Professor Gulliver; Dr. Ramsbotham; Quæsitor; Dr. Braithwaite; Foreign Subscriber; Dr. Bushnan; Cocker; Dr. Garrett; Dr. Merriman; Dr. Moore; Rev. Dr. Neebe; Dr. Day; Dr. Burrows; Mr. H. Stanley Gull; Professor Day; Dr. Tanner; Professor Rolleston; Mr. Arbuckle; Mr. J. P. Creswell; Professor Paget; Dr. F. J. Brown; Mr. Gascoyen; "Idiopathicus"; Dr. Moriarty; Executors of late John Medd, Esq.

APPOINTMENTS FOR THE WEEK.

August 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

11. Monday.

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

12. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

13. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

14. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

15. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

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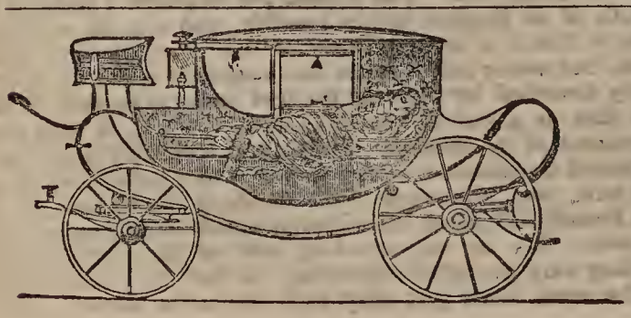
"DAVID EASTON, M.D., Medical Officer Rhins of Galloway Poorhouse, &c., &c., Stranraer, Wigtonshire, Scotland."

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that *it has never failed to have the desired effect* in whatever case it has been administered.

"C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, &c., &c."

"I have had several parcels of your Chlorodyne, and the Medical men who have used it find it equally efficacious with that which is double the price, both having been tried on the same patients with similar results. "W. GRAHAM CARR, Pharmaceutical Chemist, Berwick."



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ORIGINAL LECTURES.

LECTURES ON THE BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE II.—*Shape of the Red Corpuscles of Man — Their Magnitude — Specific Gravity — Pale Cells and Lymph-Globules—Granules or Molecules—Molecular Base of the Chyle —Development—Red Corpuscles as Nuclei of Cells.*

HAVING, in the preceding Lecture, described the structure and analogies of the red corpuscles of man, we come now to a consideration of their

Form or Shape.—This, in the regular or mature corpuscle, is circular and flattened, a disc, as was first clearly proved by Hewson, though the old error of its globular or spheroidal form prevailed for years afterwards. He also discovered that the flatness of the corpuscles is preserved by the saline matter of the serum and destroyed by water, and how the corpuscles are affected by strong and by weak solutions of neutral salts. Yet all his conclusive evidence was rejected by Mr. Hunter, as inconsistent with his own hypothesis and observations, which led him to persist in considering the corpuscles as globular, and also that it was still unknown what were the properties of the serum and of other substances which preserve the natural form of the globules. And this seems the more remarkable, because Hunter by no means rejected the use of the microscope, but employed it carefully, as in his experiments on suppuration.

RED CORPUSCLES OF THE BLOOD OF MAN.

Fig 1

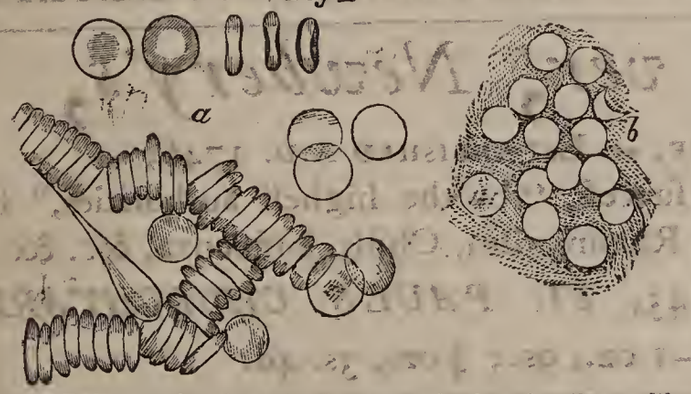

FIG. 1.—Red corpuscles of man (on the same scale of one-four-thousandth of an inch as the other Figures.) At *a*, the corpuscles are seen flat, on edge, and in rolls; the two first corpuscles show the central spot or concavity, dark and light; next are shown the biconcave and concavo-convex forms; among the rolls, one corpuscle is drawn out by virtue of its viscidity, and would resume its circular shape by virtue of its elasticity. At *b*, the pale membranous frames of the corpuscles are shown, completely devoid of any nucleus, and deprived of their coloured viscid part by three days' washing in water, and then treated with sublimate.

This disc (Fig. 1, *a*) is rounded at the margin, either quite flat on the broad surfaces or depressed like a biconcave lens; or even concave on one side and convex on the other, somewhat cup-shaped. But the prevailing form is biconcave, as was inferred by Dr. Young, and proved by Dr. Hodgkin and Mr. Lister; and this it is that produces the central spot which caused so much perplexity to, and discussion among, the earlier observers. Some of them insisted that it was a nucleus, and others that it was a real hole, and the corpuscle consequently a ring. By watching the corpuscles as they appear on edge or roll over in the field of vision, it will be seen that this central spot is nothing but a depression or concavity. It may be destroyed and the corpuscle made convex by the addition of a fluid of less specific gravity than that of the serum or liquor sanguinis. As to the darkness or brightness of the spot, which so much puzzled our forefathers, it merely depends on the focus or light. Thus, if you get a corpuscle in view with a good definition of the circumference and no appearance of the spot, you may instantly see it by so slightly altering the focus as scarcely to diminish the distinctness of the contour of the corpuscle, the spot becoming dark when the focus is lengthened, and bright when the focus is shortened; and when, in a clear light, the spot is not visible at all, it may be produced by simply diminishing the light without altering the focus in the least.

The biconcave, then, is the most prevailing and regular figure. But when we consider how thin, pliant, and elastic, and what a delicate endosmometer the corpuscle is, how it is constantly taking in or giving out fluid according to the relative density of its contents and that of the liquor sanguinis, we might expect considerable variations of form, within certain limits; and such is the fact. You may see the corpuscles quite flat, rather tumid, like a circular or oval cup, stellate, notched, granulated, crescentic, angular, lanceolate, comma-shaped, sigmoidal, fusiform, besides other varieties defying definition. Hence one is often seriously informed how some person has discovered that they are either mulberry-shaped, star-like, indented like a cog-wheel, and so forth; and the authors of such observations are not always satisfied when told—and truly told—that the regular corpuscles may and do change their shape by puckering, shrinking, or becoming corrugated into such figures, or swelling out into others; while some like forms may be produced merely by the action of saline solutions of certain specific gravities, according to the effect desired. Nay, further, you may have the same observer come back again, with the joyful news that his curious shapes have been just described in some German or other foreign book, lately translated into English; and, perhaps, that a few corpuscles have actually been seen further splitting into fragments, described by some hard word like that applied to division in the pollen grains of plants. Whereas the truth is, that these things were generally well noticed by Hewson more than three-quarters of a century since, and the diagrams before you on these special points are from drawings published about twenty years ago. The splitting of the envelope is most plain and common in the dried corpuscles of the amphibia, especially the perennibranchiate subdivision, and in the large corpuscles of certain cartilaginous fishes. The one shown in the last object of the woodcut below (Fig. 4) is from a chelonian reptile, *Gymnopodus Ægyptiacus*. In the blood of certain cervidæ the lanceolate, crescentic, sigmoidal, and angular forms may be seen in unusual abundance, as will be shown when we come to treat of the ruminant order.

Fig. 4

FIG. 4.—Irregular forms of the red corpuscles of human blood; except the last large oval object, which shows the splitting of the cell-wall in the red corpuscle of a reptile.

The manner in which the corpuscles run together into piles or rouleaux (Fig. 1 *a*) was, I believe, first depicted by Della Torré, about three years after Hewson had described them "like a number of coins laid one against another." We shall have to revert to this point, as well as to the viscidity of the corpuscles, when treating of the buffy coat of the blood.

Size or Magnitude.—The human red corpuscle I make to be $\frac{1}{5200}$th of an English inch in breadth, and $\frac{1}{12400}$th in thickness, so that it is between three or four times broader than thick, but nearer four. Thus the corpuscle is not, as incorrectly described by some of the best earlier observers, as flat and thin as a guinea, the thickness of which is only one-nineteenth of its breadth. More than a century ago, Jurin estimated the diameter of the corpuscle at $\frac{1}{5240}$th of an English inch, soon afterwards Senac made it $\frac{1}{3600}$th and $\frac{1}{3300}$th of a French inch; and these measurements closely agree with my own. We are only speaking now of the average size; for they vary like other organisms; so that in a single drop of the same blood you may find corpuscles either a third

larger or a third smaller than the mean size, and even still greater extremes, besides considerable variation in the thickness. My own estimate of the average size has been deduced from numberless measurements, frequently repeated during the course of several years, of corpuscles quite fresh and swimming in the blood, and in various artificial mixtures, as well as in the dry state. In these experiments it was observed that when the corpuscles of man and other mammalia were dried on glass, however quickly, they were usually just appreciably larger than in the liquor sanguinis, as if they were slightly spread out or prevented from as slight a contraction in sticking to the object-plate. And it is remarkable that, in the lower vertebrata, the corpuscles so dried were often, on the contrary, somewhat smaller than when swimming in the blood. We have in the former Lecture described how well their form is preserved by drying, a property in which they differ so remarkably from other soft and free animal cells.

Specific Gravity.—The red corpuscles are the heaviest part of the blood, as was particularly shown by Jurin and his successors, who estimated the specific gravity of the corpuscles at 1·126. Dr. Davy, by immersing them in a saline solution, made their specific gravity 1·132. In my own trials, it was soon evident that a satisfactory result cannot be obtained by this method. The corpuscles are not like glass beads, but will soon become specifically heavier or lighter in fluids of different densities. Parts of the blood, as the fibrin in the state of clot, may at first float and afterwards sink in a strong saline solution, while the solution would become gradually reduced in specific weight by depriving the animal matter of its moisture and replacing it by the heavier saline substance.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, AUGUST 16.

THE COLLEGE OF SURGEONS ON APPRENTICESHIP.

Certainly, the Council of the College of Surgeons has some successes to boast of; and as its latest achievement has trumped the raciest *bon mot* in existence. Who does not recollect the Hogarthian story of the lean and withered wretch imprisoned for debt and of the drunken swearing soldier, who were discussing the horrors of a French invasion? "What will become of our precious liberty?" said the gaol bird. "But, d—— my soul, it's our most holy religion that I fear for," said the soldier. And now the Council of the College of Surgeons professes a pious compunction lest its younger members should neglect the pestle and mortar, and enter practice unskilful in the art of mixing a rhubarb dose; and for this reason, as its apologists assert, it has defied the Medical Council, and brought back discord and confusion when we began to hope for the long-promised uniformity of Medical education.

The College of Surgeons proposes to allow the four years of Medical and Surgical study to begin with a term of apprenticeship, to be passed with a Practitioner. We affirm that Medical study should begin with the severer discipline of the Medical School, and that the residence with a Practitioner and introduction to the *business* part of professional life should come afterwards. As there are three parties concerned, we will take the case of each singly.

First, for the pupil himself, we hold that it is of infinite advantage that there shall be no break in the course of systematic instruction. In an apprenticeship he is necessarily left to pick up information; in a Medical School he would cultivate the faculties by which he may observe accurately. As for "the varied manipulative dexterity necessary for the appliances of Surgical art," there is no question that that can only be got by practice. There is no question, too, that a country Hospital affords the best opportunities for such practice. The point to be decided is, shall the student, or shall he not, add to his knowledge of language and mathematics further knowledge of natural philosophy chemistry and anatomy, before he begins practice? Shall he go on *learning*, or take to *picking up* information? Shall he bandage sore legs, help to set broken bones, witness Surgical operations, and assist in the treatment of cases in Medicine and Midwifery, with or without a knowledge of what he sees and hears of, and with or without a discipline of exactitude in the art of observation and examination of patients? Given one year of practice at the Exeter or Norwich Hospital,—who will benefit most by it, the student who has learned chemistry and anatomy, or he who has not?

The second party concerned is the *master*, the Surgeon in general practice, with or without a public appointment, who receives a youth to train him for practice. It is commonly said that the Council count upon the support of many men who desire to get young apprentices with fees to help them in their surgeries, and are afraid of older students lest they grow bumptious, and do not take kindly to the pestle and mortar. But whilst we steadily maintain the propriety of apprentice fees, we hold that the apprentice will be of infinitely more service when he knows what he is doing. We hope the old lien between master and apprentice will be kept up,—that the youth of 16 or 17 will still be articled to a Practitioner of repute, and that a certain portion of his time will be devoted to the study of the practical working and business details of the Profession in his master's house. But this does not affect the question whether Medical study shall begin at a Medical School.

The third party concerned is one whose claims are seldom represented in discussions of this matter,—the poor population. It must be borne in mind that apprentices are in no small degree Practitioners. It falls to their lot to treat the slighter cases, and visit and report upon the severer ones. We may appeal to the personal experience of any one who has been apprenticed at a good country Hospital. It were ungrateful not to acknowledge the abundance of practical details, of useful methods learned, of instructive cases witnessed. Yet the apprentice would have learned better had he enjoyed a fuller previous training; he would have been more useful to the master; and as for the poor patients, who can count up the mistakes in diagnosis, the medicines, now inert, now violent, the teeth broken in their sockets, and the similar achievements of "prentice hands" amongst the poor?

VARIOLA OVINA.

A few weeks ago the attention of the readers of the *Medical Times and Gazette* was directed to a form of ovine disease which presented points of interest in common to the pathologist and naturalist. We are induced again to transgress the strict limit of human pathology, by the appearance, under somewhat remarkable circumstances, of an epidemic exanthem in a large breeding flock in the West of England. The disease belongs to the same nosological group as vaccinia and variola, but is not identical with either, or, at least, if it be held to originate from the same morbid principle, it is markedly modified by the constitution of the species it affects;

Ovine Variola, the *clavelée* of the French, although frequently epizootic in the flocks of France and Italy, was an unknown disease in England until the year 1847, when it was communicated to a flock at Datchett and to another at Pinner by some Merino sheep from Spain. It lingered for a certain length of time, and found its way into Hampshire and Norfolk, but was ultimately believed to be eradicated; and, until the present time, there has been no other recorded instance of sheep-pox in this country. Its sudden appearance in the flock of Mr. Joseph Parry, of Allington, about a month ago, is at present inexplicable. Neither contagion nor infection can be traced, and unless any new circumstances arise to throw light upon its causation, it must be considered an instance of the origination *de novo* of a malignant type of varioloid disease. The epizootic of 1847 was carefully observed by Professor Simonds, who undertook a series of experiments to determine its nature and affinities, and embodied the results of his observations in an essay which appeared in the following year. From Professor Simonds' description, and that of Mr. Ceely, quoted in the same work, it would appear that variola ovina is essentially a vesicular rather than a pustular disease,—at least, that many sheep pass through an attack without any pustules being formed, although "in the latter stages of extreme or protracted cases a purulent fluid is secreted by the vessels of the inflamed dermis, which becomes mingled with the contents of the vesicles, and virtually changes them into pustules." Ulceration and death of the skin in patches is also a common result in severe cases. The ovine vesicle differs from the vaccine and variolous in being flat on the surface. Central umbilication only occurs in the perfectly developed vesicle when a crust is formed on its middle. If the cuticle dries and produces a scab of the full size of the vesicle, no central depression is present. Numerous experiments have proved beyond doubt that amongst sheep it is both contagious and infectious. Its period of incubation varies from seven to thirteen days. The mortality is rarely less than 25 per cent., and in some instances whole flocks have been swept away. In the majority of fatal cases, death takes place during the early or papular stage of the eruption, or in the stage of suppuration and ulceration. The mucous membrane of the air passages participates in the morbid action, mucous *vari* being found studding the Schneiderian membrane and the inner surface of the larynx, trachea and larger bronchi. The most interesting point to the Medical Profession is the connexion of this disease with vaccinia and variola. In the first place, it would appear, from numerous experiments undertaken by French observers, that vaccination does not protect sheep from ovine variola. Hurtrel D'Arboval states that of 1523 sheep subjected to vaccination, 1341 contracted the vaccine disease; of these, 429 were subsequently exposed to variola ovina, either by direct inoculation or by being placed amongst infected animals, and 308 of them were attacked by the malady. It would seem, however, from the report of a committee of investigation, quoted by M. Vitet, that it is impossible to communicate the vaccine disease to sheep which have passed through variola ovina. In the sheep, variola vaccinia runs through its stages much more quickly than in man or in the cow; lymph forms by the fifth or sixth day, and the affection is terminated by the eighth day after the operation. The want of protection by vaccination in the sheep has been, in this country, proved both by Mr. Ceely and Professor Simonds. There is a great discrepancy in the statements of French and Italian writers as to the effects of ovination on the human subject and on other animals. D'Arboval, in his article on "Clavelisation," in speaking of the attempts to give security against small-pox by substituting ovination for vaccination, asserts that many children have been ovinated several times in succession, but that it has invariably failed. The same children have been afterwards vaccinated with the most perfect success. He also states that efforts to communicate variola ovina by inoculation to horses, oxen, goats, deer, pigs, dogs, monkeys, rabbits, and various birds have likewise failed. Simonds and Ceely endeavoured, unsuccessfully, on various occasions to communicate the sheep-pox to the cow, and the latter observer ovinated twenty-five children, whose ages ranged from three to fifteen years; some twice and thrice over; in none were the number of punctures less than six, but in no one instance did any specific disease follow. On the other, hand it is asserted by Sacco that ovination of the human subject is as prophylactic against small-pox as vaccination, and that by transmitting the disease through the system of man or the cow it is rendered more suitable for the inoculation of sheep, for that it then produces only a local and not a general eruption. To arrest the outbreak which is at present attracting public attention, Professor Simonds has adopted the practice of inoculating with ovine matter the whole of the infected flock. The ovination of sheep was first proposed by Chalette in 1762, and it has since been had recourse to annually in many parts of Italy, Prussia, Austria, and France. All writers agree in ascribing the most beneficial results to the proceeding. At the Alfort Veterinary School only one sheep in 400 died from the inoculated disease; and D'Arboval records "that 32,317 sheep were inoculated, out of which 32,121 took the disease, and 196 escaped; that of the 32,121 infected animals 31,851 recovered, and 270 died,—being at the rate of 3 in every 400. Of the inoculated sheep, 7697 were afterwards exposed to the influence of contagion, and not one of them again took the disease."

On the whole, the balance of evidence seems to prove that variola ovina is essentially a different disease from human variola, and that it is not nearly so closely allied to that malady as vaccinia. That human small-pox is communicable to the order of animals which approaches most nearly to man —the Quadrumana—appears more than probable. In the Lectures on Fever recently published by Dr. Anderson, of Glasgow, is an extract of a letter from a gentleman travelling in the province of Veragua, in New Grenada, in 1841, which gives a curious account of variola in the forest. He writes:—

"I left the town of St. Jago, on the western coast, for David, in Chiriqui, a town in the interior, about sixty or seventy miles to the N.E. (and leeward) of St. Jago. The small-pox was raging with great violence in St. Jago, but there was no appearance of it in David. A few days after my arrival there, taking my customary ride in the forest, which teems with animal life, I was struck by observing one or two sick and apparently dying monkeys on the ground under the trees. The next morning I was struck by the same singular appearance (for it is very unusual to find a wild animal sick—they instinctively hide themselves), and by thinking that I perceived several on the trees, moping or moving about in a very languid and sickly manner. I consequently dismounted and examined two, which were on the ground—one dead and the other apparently dying; and after careful examination, no doubt remained on my mind that they were suffering and had died from small-pox. They presented every evidence of the disease, the pustules were perfectly formed, and, in one instance (that of the dying one), the animal was nearly quite blind from the effects. A few days afterwards (I think about four or five days), the first case of small-pox appeared amongst the inhabitants of David, and in the course of a fortnight, one-half of the population was stricken."

It only remains to observe that the present outbreak of ovine disease should make the Inspectors of Meat Markets doubly on the alert. Numerous instances of the slaughter and sale of infected sheep were brought to light during the epizootic of 1847.

MEDICAL EDUCATION IN LIVERPOOL.

(*From a Correspondent.*)

If I, for once, leave the ordinary subjects of my letters in order to give your readers some account of this town as a place of Medical education, I hope that what I have to say may not prove without value. Supposing

that one of your readers wishes to know from your own correspondent here what kind of an *alma mater* Liverpool is likely to prove to his son, what sort of a place this is to live in and to study in, I should say to him that I believe he will find Liverpool to be in her *alma-maternal* capacity eminently trustworthy, and that if a man has any ideas in his head as to how the two important functions of living and studying are to be performed, he may accomplish both of them here in a highly satisfactory manner.

A student may get good lodgings within an easy distance of the School of Medicine at from 14s. to 16s. per week for two rooms; and if he does not mind a walk towards the outskirts of the town, he may obtain still cheaper accommodation and still purer air. With regard to the healthiness of the town, excepting only those parts which skirt the docks and lie on a low level, all recent reports of our sanitary condition show that it may compare advantageously with any town in the Kingdom.

The cost of living is about the same as in London, certainly not more. We cannot boast of any very inviting scenery in the immediate environs of the town. We have, however, two good parks, that at Wavertree, to which adjoin the Botanical Gardens; and the Prince's Park; while any amount of fresh air and change of scene may be had on the river at a cost of a few pence invested in a trip up to Eastham or down to New Brighton, and many picturesque places in Lancashire, Cheshire, and North Wales are attainable by an hour or two of railway or steamboat travelling. Now, with regard to the facilities for Medical study, I am not going to be so rash as to attempt to place this or any Provincial School in antagonism to those of the Metropolis; but I may say this, that there is not the same amount of risk in a Provincial School that there is in a Metropolitan one, of the individual student being lost in a crowd as it were; and seeing that the goodness of the education to be got depends much more upon the brains of the man who is to get it than upon the special educational regimen upon which he may be put, I can promise any one who has a real appetite for Medical knowledge, that he will find very sufficient food for it here.

With regard to the Royal Infirmary School of Medicine, I need not give the details which your readers will find in the advertisements and prospectuses of the School; but I may just mention in reference to the question of expense that all the fees for the lectures required by the Colleges of Physicians, Surgeons, etc., may be included in one sum of £45, if this be paid in advance. The facilities afforded for the study of Practical Anatomy are considerable, for in consequence of the large size of the Workhouse and the number of the poor "waifs and strays" of society, homeless and friendless, who drift into it and die in it, there is usually a free supply of unclaimed dead who are sent for dissection to the School; and if at any time this supply runs short, it may be supplemented by the Hospitals. The only expense attending this department of study is the price of the parts. The division made of the body is into head and neck, thorax, abdomen, and extremities, each part being charged 7s.

Next, as to the facilities for Hospital Practice. The student may make his choice between attending the Royal Infirmary or the Northern Hospital. The Southern has not at present the full amount of beds required by the Licensing Bodies. At the Infirmary there are 226 beds. The cases admitted include a large proportion of acute diseases, accidents, and other important Surgical cases; and scarcely any operating-day passes without some serious operations. One great improvement has lately taken place in the introduction of really scientific nursing, under the superintendence of a lady who has been trained to this work, and whose whole time will be devoted to it; all the domestic arrangements of the house being now, as heretofore, under the control of the matron. The building for the training school and home for nurses, which stands on the Infirmary grounds, is now rapidly advancing; and I have no doubt that the improvement in the nursing will render even more valuable than now the clinical instruction given here. A department for the special diseases of women is also shortly to be commenced; and as the sum of £10,000 has been given for this purpose, I feel no doubt that this will prove another valuable addition to the clinical advantages of the Infirmary. The cost of the practice is as follows:—Six months, £10 10s.; first year, £18 18s.; second, £12 12s.; third, £13 10s.; or for three years, £36 15s. Gentlemen who wish to reside in the Infirmary may become apprentices, if for the full term of five years, at the very moderate rate of £63 per annum; this payment including all the fees for lectures, though not those for Hospital Practice. If a gentleman wishes to remain only one, two, or three years, he may do so on payment of £73 10s., £136 10s., or £199 10s. Dresserships and clerkships are given to pupils quarterly without extra charge; and there are five Exhibitions offered for competition annually at the School:—Firstly, the Royal Infirmary Scholarship, which is a prize for proficiency in all the subjects taught in the School—consisting of a gold medal and six months' free board and residence, with dressership and clerkship in the Infirmary. The other four Exhibitions, for each of which an examination in three distinct branches of Medical Science is held, are the same as the above, minus the gold medal.

The Northern Hospital, with 130 beds, affords a good field for the observation especially of accidents, which it receives in large numbers from the docks and from the railways near the north end of the town. In the Medical wards a considerable amount of acute disease may be found, the patients being in large proportion sailors, and including a large number of foreigners. The fees for the Medical and Surgical Practice are as follow:—Six months, £9 9s.; one year, £12 12s.; perpetual, £31 10s.

At the Southern Hospital there are many interesting cases and many important operations, to which admission is most readily afforded for all who are disposed to take the trouble to inquire after them; and I believe that, as soon as the funds admit of its being done, the number of beds will be raised from the present average of 70 to 90, to the full number of 100. There is, lastly, the largest clinical field in Liverpool—the Hospital wards of the Workhouse and the Fever Hospital, founded by Dr. Currie, in which, among a number of patients averaging about 600, almost every possible form of disease is to be found, and in which about 400 Midwifery cases occur every year. This is still, I am sorry to say, not open to students. There is no difficulty as regards admission to any operations or to see any particular cases; but it is much to be regretted that the prejudices of the Select Vestry have led to the rejection of the proposals made by the Medical officers for the admission of students in the same way as to any other Hospital.

So much for the general Hospitals of this town; and now a few words in reference to those that deal with special classes of cases.

One of the most important of these, the Lying-in-Hospital, has just been transferred from its old quarters in Pembroke-place to the new building in Myrtle-street, which was opened formally by the Bishop of Chester on Thursday, July 24. The Institution will accommodate 30 patients. Students are at present admitted without any charge.

For the special study of Eye and Ear diseases, a student may avail himself of the practice of the Eye and Ear Infirmary, the fee for which is £3 3s. for each three months of attendance. The number of beds is now to be 25, and the number of patients of all classes amounts to over 6000 a-year. If he wishes to attend particularly to the diseases of children he may find plenty of infantine patients at the Children's Hospital in Hope-street, to the practice of which he may be admitted at a cost of £3 3s. for six months,

or of £5 5s. for perpetual attendance. Syphilitic cases of all kinds may be found in the Lock Hospital, with 50 beds, attached to the Infirmary; this is now open to students, the fee being £3 3s. per annum; and lastly, he may study Lunacy on a large scale at the County Asylum at Rainhill, which is very easily reached by the London and North-Western line, the fee charged at this Institution being £4 4s. for each three months.

I have thus given an outline of the Medical opportunities which are offered here, which I hope will justify the statement that Liverpool is not only a place devoted, in the words of the old toast, to "ships, colonies, and commerce," but one which offers no mean advantages for the study of Medicine as well.

THE WEEK.

THE INTERNATIONAL CONGRESS FOR THE DISCUSSION OF EXPERIMENTS ON ANIMALS.

An international congress, under the auspices of the Royal Society for the Prevention of Cruelty to Animals, in co-operation with the Société Protectrice des Animaux of Paris, has been held during the present week at the Crystal Palace. The purpose of the meeting has been to discuss the propriety of experiments on living animals undertaken with the intention of adding to physiological or surgical knowledge. Had it been really the desire of the projectors to obtain the attendance of persons best capable of giving an opinion on the subject, the terms of the advertisement by which this meeting was convened could not have been more unfortunate. The advertisers characterise the method of investigation they wish to discuss as "vivisection, or the practice of cutting up live animals for scientific purposes." Such language addressed to men of science carries with it its correction. The class appealed to would be at once aware of its false colour and injustice, and from ordinary defensive self-respect would be cautious how they exposed themselves to the prejudice and wrong construction of its authors. The general public, however, to whom, there can be no doubt, the advertisement is principally addressed, are not so capable of comparing the thing referred to with the description given, and will be led to form an utterly mistaken notion of physiological experiments. Grave exception may also be taken to the discussion of such a question at all in a self-constituted assembly like the Society for the Prevention of Cruelty. To decide justly in the matter requires not only a thorough comprehension of the ends for which the proceedings canvassed are undertaken, but also a larger mental scope and more philosophical temper than are usually the characteristics of a promiscuous assembly. That the abuse of a thing is no warrant for its condemnation, is one of the oldest lessons taught the world, but there is none which it more easily forgets. No person, whose moral nature is raised above that of the savage, would defend the practices which lately disgraced the Veterinary Schools of France, or in past years the Theatre of Magendie. Professor Sharpey, in his address to the British Medical Association, has accurately drawn the required limits, by asserting that when the result of an experiment has been fully obtained and confirmed, its repetition is indefensible, and that as the art of operating may be learned equally on the dead as on the living body, operations on the latter for the purpose of Surgical instruction are reprehensible and unnecessary. The whole argument has been so admirably stated by Professor Sharpey that nothing we can say could add to its cogency. To assert that experiments on living animals have been useless to science, and of no avail in promoting the interests of mankind, as was done by Mr. George Macilwain and other speakers at the Crystal Palace, is simply to ignore the whole history of physiological science. We recommend these gentlemen to study the literature of the physiology of the circulation, commencing with Harvey's "Anatomical Disquisition on the Motion of the Heart and Blood in Animals," down to the writings of physiologists of our own time, and then to digress into the history of the treatment of hæmorrhage and arterial aneurisms. We would especially direct their attention to the chapter in Harvey's work, "On the Author's Motives for Writing," where he says, "by using greater and daily diligence, having frequent recourse to vivisections, employing a variety of animals for the purpose, and collating numerous observations, I thought that I had attained to the truth, that I should extricate myself and escape from this labyrinth, and that I had discovered what I so much desired, both the motion and use of the heart and arteries." We would ask whether the attainment of what Harvey desired—of a knowledge which has revolutionised Medicine, and been the foundation of every improvement in Surgery, which has saved thousands of human lives, and is destined to save thousands more—would not have been cheaply purchased by the sacrifice of a hecatomb of brute existences? Of how much more value is Man than many sparrows?

SCOTT *v.* WAKEM.

A curious case was tried before Baron Bramwell, at Guildford, on Tuesday. The plaintiff, a man possessed of some property, was one day last February in a state of intoxication; he was attended by a Surgeon in the neighbourhood, who engaged a man to stay with him, and keep him under restraint, for the night. For this act he now brought an action of false imprisonment against the Surgeon. The defence was, that the Surgeon was sent for by the wife and sister, and that the man was placed in attendance at their urgent request. The wife and sister, when examined, positively stated that they did not call in the defendant at all, nor was there any need for his interference. In addition to Mr. Wakem's evidence, that Mrs. Scott was in a state of great alarm and said that her husband had threatened to shoot her, a police-sergeant deposed that on the same afternoon a servant of the plaintiff had come to the police-station, and begged that a policeman might be sent to the plaintiff's house, for that he was mad, and had threatened to murder his wife. Mr. Wakem also gave evidence of former attacks, in which the plaintiff had laboured under the delusion that persons were following him about, and he carried loaded pistols to shoot his pursuers. The jury found a verdict for the plaintiff, with one farthing damages. A striking example this of the injustice Medical men frequently meet at the hands of the public, and the risks they incur. Had Mr. Wakem put Mr. Scott to the additional expense of a second opinion, he would have protected himself against his patient's ingratitude.

THE SEAMEN'S HOSPITAL.—His Highness the Viceroy of Egypt has sent a donation of £100 to the Seamen's Hospital, established on board the *Dreadnought*.

MEDICAL MISSIONS.—For the last twenty years a society of Medical men in Edinburgh has been engaged in educating and sending forth Medical missionaries to foreign parts, but no organisation for a similar purpose has existed in England. The recent session of the British Medical Association in London has furnished an opportunity of laying before English members of the Profession the claims of Christian missions among the heathen upon Medical men. With this view, a meeting of the Christian Medical Association was held at the St. James's Hall, on Thursday, the 7th inst., at 9.30 a.m., under the presidency of the Treasurer, R. D. Grainger, F.R.S., and the members of the British Medical Association were invited to be present. The supremely beneficent character of such missions to the ignorant and sick poor in heathen countries, and their influence in disposing the people to receive the facts and doctrines of Christianity, were shown in a brief address by David Paterson, Esq., a Medical missionary at Madras. At the close of the meeting a committee was directed to arrange and carry out a plan by which the Profession in England might contribute to the spread of Christianity by means of Medical missions.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THURSDAY.

In accordance with the recommendation of the Council, Dr. Waters proposed that the next annual meeting should be held at Bristol, that Dr. Symonds be appointed President elect, and that the Committee of Council be requested to make the necessary arrangements, and nominate the reader of addresses. This was seconded by Dr. Budd, of Bristol, and carried unanimously.

A Paper, by J. V. Solomon, F.R.C.S., was read, on

THE RELIEF OF NEAR SIGHT WITHOUT SPECTACLES.

The paper commenced with some remarks on the accommodation of the normal eye. It was argued, on the method of exclusion, that the ciliary muscle must be the chief factor of those changes which produce the highest state of refraction. In myopia, or near sight, the Author said the refraction of the dioptric media was too great; a condition which he reduced by performing an intraocular myotomy of the ciliary muscle. Mr. Solomon then noticed the serious structural changes which the ophthalmoscope and dissection after death prove to take place in the optic nerve, retina, choroid, sclerotica, etc. An acquaintance with these pathological phenomena, he said, explained the great uncertainty which myopic persons experience in their powers of vision, and the subjective symptoms of congestion to which they are prone; also the not infrequent occurrence of amblyopia, and sometimes of amaurosis. The Author contended that the infrequency of non-hereditary staphyloma posticum, unattended by atrophy of the choroid pigment, favoured the opinion that the choroid, and not the sclerotica, was primarily affected in the production of elongation of the antero-posterior axis of the globe. It was evident, he remarked, from all we know of the pathology of myopia, that whatever Surgical operation we may adopt for the relief of near sight, it must be one containing within it not only the power of decreasing the excess of refraction of the dioptric media, but of removing intraocular congestion, which is commonly connected with that state. Observations made at one of the most numerously attended provincial Ophthalmic Hospitals, and which had extended over a period of nearly two years and a-half, and embraced an experience of upwards of forty operations, had led the Author to the conviction that the said desiderata are more completely supplied by intraocular myotomy than by any other method. Indeed, he knew of no treatment which is equally safe and easy of execution, that exerts the same amount of curative power in cases of subacute and chronic posterior choroiditis. After describing the ciliary muscle and his method of dividing it, Mr. Solomon said the most striking results from his plan of treatment were afforded by patients under the age of puberty. The operation enabled children to see features with as much distinctness, and at the same distance, as persons whose accommodation was normal. It prevented their acquiring the habit of dropping the lids, and of that *distrait* demeanour which myopics commonly exhibit. It also enabled them to thread a needle, pick a pin from the floor, and read a book at a moderate distance from the eye. A boy of eleven years, who could see features with distinctness at six yards only, in two years after the operation saw them with clearness at forty yards, and the figure of a man and all his movements at 500. He read small pica at thirty-three inches, instead of at six, as before operation. In adults whose eyeballs are not very wide in their transverse diameters, or their optic nerve completely encircled by a wide horned staphyloma posticum, or their choroids spoiled by extensive atrophy, a normal range for features was frequently acquired. A man who two years ago could read small pica at nine inches and a-half only, and see features distinctly at five yards, now reads at twenty-four inches, sees features at thirty yards, and trees with distinctness at a mile and a-quarter. The paper was illustrated by diagrams of the ciliary muscle, coloured drawings, and mathematical formulæ, illustrative of the value of the operation in the accommodation of eyes which had been treated upwards of one or two years.

Mr. Soelberg Wells was sorry that Mr. Solomon had not carried out his investigations in a more scientific manner. Indeed he had not even proved that the cases he had brought before the meeting were cases of myopia at all, for no examination with concave glasses had been instituted in order to determine the presence and degree of myopia. He was the more surprised at this as he had, about a year ago, pointed out to Mr. Solomon that as long as he contented himself with such tests as features, etc., he would always lay himself open to the charge of a want of accuracy in his investigations, and had, therefore, strongly advised him to examine his patients according to Donders' method; to determine the amount of myopia, and then to try what concave glasses were required to enable the patient to read No. 16 or 18 (Jäger) at a distance of twenty feet—what glasses, in fact, would neutralise the myopia. Mr. Solomon had urged that Jäger's test types were not in common use, whereas features, etc., were of more practical utility as objects. Mr. Wells thought, however, too great accuracy and scientific exactitude could not be exercised when investigations were instituted for the purpose of testing the value of a new operation, more particularly when these investigations were to be submitted to the consideration of so learned a body as the British Medical Association. Mr. Solomon had, moreover, made use of No. 8 of Jäger's types, and he could not therefore understand his non-employment of the large types for testing distant vision; indeed the choice of No. 8 as a near object was peculiarly unfortunate, for the type was too large, the point being to test the vision with the very finest print (No. 1), in order at once to detect the co-existence of any amblyopia; if the latter is not present the finest print can be easily read, even by children. Had Mr. Solomon, prior to his operation of intra-ocular myotomy, tested the sight of his patient with accuracy, had he tried what concave glasses were required to enable the patient to see No. 16 or 18 of Jäger at a distance of twenty feet, and had he then, after the operation, been able to prove that the patient could now see almost as well without glasses as the normal eye, could for instance read No. 19 or 20 at a distance of twenty feet, then, indeed, his operation would have deserved the careful attention of all ophthalmologists. As, however, no such scientific data have at present been given by him, Mr. Solomon cannot be surprised if we hesitate to adopt intra-ocular myotomy as a substitute for spectacles in the relief of myopia.

Mr. Solomon, in reply, said that the cases he had brought forward were treated during a period of only two and a-half years, and that during a greater part of this time Jäger's test types were not in use in this country. Although he was grateful for help from any quarter, he had no Germanophobia. The reason why he did not use the smallest type was because most of the patients were very young. How few children with perfect sight who could easily read No. 8, would be able to read brilliant. Again, he thought that it was much simpler to test a child's sight by features than by large types at a distance. He admitted that it would, if practicable, have been better to have tested the sight by smaller type; and if he had done so he would probably have discovered amblyopia in some of the cases, and his results would then have been all the better.

A Paper, by Dr. Farr, was then read, on

A METHOD OF DETERMINING THE EFFECTS OF SYSTEMS OF TREATMENT IN CERTAIN DISEASES.

After some introductory remarks, in which he remarked on the difference between empirical and scientific knowledge, the Author spoke of diseases in which there was clear evidence of the value of Medical treatment. He mentioned the treatment of drowning by the Marshall Hall method; the relief of pain by chloroform; the treatment of ague by quinine; scurvy by lemon-juice; and many other incontrovertible instances of benefit from medicines. In another class of cases, however, the effects of Medical treatment were not so evidently beneficial; *e.g.*, in fever, the exanthemata, etc. A certain number of these cases are fatal under any treatment. In these there must necessarily be a good deal of uncertainty; so much so, that the expectant does nothing, the empiric boasts of his cures, and the conscientious man is puzzled by the many kinds of treatment each of which, in its turn, is lauded or despised. Some believe that recovery after a certain line of treatment is due to that treatment, and on this fallacy quacks found their reputation. He endeavoured to show that, by taking cases of which the correct diagnosis is possible under ordinary circumstances, we are able to get more certain information as to the influence of treatment on disease. In order to test the relative value of two kinds of treatment, it is necessary to note an equal number of cases, treated accord-

ing to the two methods. The length of the illness under each method of treatment will guide us in ascertaining which is the better. If in one series of cases the average duration of the illness is very much shorter, we shall have no hesitation in deciding. But in some cases, as in small-pox, the disease cannot be cut short. In these we can note the proportion of recoveries and also the quickness of cure. General impressions cannot be trusted, so that it is necessary, as it were, to measure the results obtained by tabulating the cases, ascertaining thus the per-centage of recovery, the duration of the disease, and its fatality at different stages. Then, again, we shall also be able to note the value of the same treatment in disease according to the stage at which it was commenced, and to calculate also the chances of a patient's recovery during, *e.g.*, each week of his illness. The Author here showed a table in which numerous cases of small-pox had been tabulated, so as to show the proportion of recoveries, average duration of illness, etc. He then alluded to other points of more special injury—the results of treatment in Hospitals and in the homes of the poor, the influence of age, sex, etc. In conclusion, he said that the great progress of pathology since the time of Hunter had laid a solid foundation on which to build a better and more certain system of therapeutics. He hoped to see a Therapeutical Society as well as a Pathological one. He trusted also that the College of Physicians would take up the question, and, with the assistance of the general body of Practitioners, attempt to, by a combined system of observation, determine accurately the value of different methods of treatment in many diseases.

Mr. Rumsey brought forward the following resolutions with reference to the Act for the Registration of Births, Deaths, and Disease in Ireland:—

"1. That in any measure of legislation for the registration of births and deaths in Ireland, this Association deems it highly important that the local machinery for such registration should be altogether distinct from that for the registration of marriages, and is happy to perceive that this principle has been recognised in the Bills introduced into the House of Commons during this and the preceding sessions of Parliament.

"2. That it is most desirable to introduce into any such measure the principle of local scientific supervision of the return of births and deaths.

"3. That the office of Superintendent Registrar of Births and Deaths ought to be held by persons well acquainted with physical and biological sciences, versed in sanitary and vital statistics, and accustomed to make legal investigations.

"4. That it is desirable to combine with the superintendence of the registration of births and deaths the registration of all sickness attended in public institutions, or at the public expense.

"5. That each Superintendent Registrar should be required to publish, for the information of the local administrative authorities, and the instruction of the inhabitants of the district, an annual report of the results of jurisdiction, as also a quarterly summary of the deaths and diseases, with their causes, according to forms to be determined by the Registrar General for Ireland.

"6. That in the local reports of mortality and sickness it is important to specify age and occupation, to record meteorological observations, and to note local events and circumstances affecting the public health.

"7. That it is desirable to require the authentication of the cause or mode of death by a certificate from a legally qualified Medical Practitioner; and that where no such certificate is delivered the sub-registrar be required to inform the superintendent, who should forthwith make inquiry into the case.

"8. That the registration of births should be compulsory, and that still-births after the sixth month of utero-gestation, when not certified by a legally qualified Medical Practitioner, should be subject to the regulations stated in the last resolution.

"9. That the boundaries of registration districts and sub-districts ought, as nearly as possible, to conform to the limits of existing districts for the relief of the poor and for the administration of Medical aid, having due regard to the jurisdictions of local sanitary authorities.

"10. That the proposed scientific superintendents, as statistical inquirers and reporters for national purposes, should be made independent of local and party influences, debarred from private Medical practice, and paid out of the national funds.

"11. That the Council of this Association be requested to open communications with the Government and with the Poor-law Commissioners of Ireland, for the purpose of laying before them the suggestions of the Association, and of conferring with them as to the best mode of embodying them in a legislative enactment."

The resolutions were seconded by Dr Richardson, and unanimously adopted.

A Paper, by Dr. William Budd, of Bristol, was read on

THE OCCURRENCE (HITHERTO UNNOTICED) OF MALIGNANT PUSTULE IN ENGLAND.

The Paper was illustrated by a drawing, and several fatal cases were narrated. The disease, the Author said, was common in France and Germany, and had been much studied by the Continental Physicians, but in this country it had received little or no attention. In two English works only was it mentioned—in Dr. Druitt's "Surgeon's Vade Mecum," and in Dr. Copland's "Medical Dictionary"; but these authors speak of it as being all but unknown in England, and both professedly derived their account of it from the French. The Continental Physicians seem to have concluded,—1. That malignant pustule is identical with the fatal and very contagious disease called in oxen "charbon," and in sheep "sang." (This disease is common, and very fatal also, in oxen and sheep in England. It is called "joint murrain," "black quarter," or "quarter evil.") 2. That the disease is communicable to man by direct inoculation, and also by eating the flesh of animals killed while affected by "charbon." It appears, also, to have been demonstrated that the disease may be conveyed by the bite of insects. 3. That the disease may be recommunicated from man to animals. Dr. Budd then briefly related cases (of which he had collected nine) to show that the disease was not so uncommon in England as had been supposed. He next described the onset and progress of the disease. In all the cases it begins merely as a small and apparently harmless pimple on some uncovered part. For several days the disease is a purely local one, and by excision of the part it has been found, in the practice of foreign Physicians, that general infection is prevented. If, however, the disease be left to run its own course, general constitutional disturbance and well-marked symptoms of septic poisoning set in. The local symptoms are great swelling and blackening of the surface; the tissues also become very hard, and in one instance, on incising a lip affected with the disease, it cut with a creaking noise. All the cases he related terminated fatally within a period ranging from the fourth to the eighth day. Dr. Budd had obtained particulars of fourteen other cases. In two of the series the disease seemed to have resulted from the bite of a gnat; in another from contact with a diseased carcase of a sheep. In three others it occurred in persons whose occupation brought them in contact with sheep and bullocks. In the other instances nothing was made out as to the possible origin of the disorder. The Author then dwelt on the necessity of more stringent measures to prevent the sale of diseased meat. The flesh of animals killed whilst suffering from "quarter evil" is often sold. By experiments the Author had found that the temperature at which meat is cooked is not high enough to destroy animal poisons.

ADDRESS IN SURGERY,

BY J. PAGET, F.R.S.

Mr. President and Gentlemen,—I have chosen as the subject of my address, "The Treatment of Patients after Surgical Operations," and I venture to think that I shall best discharge my duty if I deal with this subject, not merely in retrospect, as if there were only some great achievements over which we might rejoice, but rather with the view of indicating some of the things which yet remain to be done, and which may be done if the members of this great Association will make it their chief business to do them. There is, indeed, nothing in the retrospect from which we need avert; rather there are many things over which we might boast as good work achieved; and if I had to name them all, or to illustrate the chief of them by one, I would take the security and soundness of our practice, founded on a wider recognition of the principle that the recovery from an operation, as from any other injury, is so natural a process that, except in certain exceptional cases, it should not be at any time or in any way interfered with; for we are so constructed that injuries by violence, from whatever source, do

of themselves, and naturally, bring about the processes for their own amendment. We are fitted, not only for the calm of life, but for the storms of it; not only for the things which are certain, but for those which are probable; nay, almost for all that are possible as events that occur in our life; and among these probable events are injuries by violence. Amon these, and not widely different from them, except in regard to some of the conditions in which patients come before us, are the injuries inflicted by Surgical operations.

Nevertheless, whatever be our faith in the natural process of recovery from injuries, there are certain things left for us to do or to watch, or in some respects to guide. And first of all we have to decide in every case the method by which the Surgical injury shall be healed. We have long been settled in a just preference for the most speedy mode of union, that is for union by the first intention, whether by immediate union or by the union by adhesion. And there are many obvious reasons for this; but the most potent of them, to my mind, is that so long as a wound is unhealed there is some risk, however small, that the patient may fall into pyæmia or erysipelas, or some other of the sore plagues of Surgery. But the manner of healing the wound being decided, there yet remain many things to be done, even by those that have the most full faith in the natural processes of recovery. They may, however, perhaps be summed up in comparatively very few words,—namely, repose and cleanliness. But both of these leave much still to be done. For repose there must be not only perfect quietude of the wounded part and the parts of the wound itself, but of all the circumstances that surround the patient; and for cleanliness the most complete purity of the air, the water, and everything that may come near the wound.

And repose requires much more than this. It requires the absolute non-interference, except on express occasions, of the Surgeon himself. There must be no rough contacts, no searchings, no pressures, no touchings of the wound except with the softest things, and in the softest ways, such as soft streams of water. More than this will spoil many a good day of Nature's work. And for cleanliness, there must be not only those things which are commonly provided, but much more—things on a larger scale—baths, either general or local baths, the frequent changing of dressings, if there are to be any dressings at all, and the frequent changes, not only of bed linen, but of beds, and, even in Hospitals, the frequent change of wards, or places in wards, or, in private houses, frequent changes of the rooms that the patient must at each time occupy; and in all these things the Surgeon has to set before himself to be done a great many things that do not lie commonly enumerated amongst the general rules of Surgery. And simple as the rules may seem, they include yet many things, but I can speak of them only in very general terms. Nevertheless, the very generality of the terms may imply a largeness of the rule that may be now laid down, that for all the ordinary management of patients after operations, repose and cleanliness are the only two things that need to be observed, and this not only for the local management of the wound, but even for those things which accompany it, namely, the shock and the reaction, that are either associated with or follow after other more important operations; for deaths from mere shock are certainly very rare, and the results of reaction are, I believe, never fatal, even when it runs up into the condition of acute traumatic fever. The discomfort of a sharp reaction after a shock is perhaps too apt to make us look upon it as a kind of disease; and yet if we would judge it more truly it is really only an example of the higher and more peculiar power of organic bodies. In inorganic matter the axiom is that action and reaction are opposite and equal. In organic bodies it is not so; the reaction is always, in health, stronger than the action.

The heart, for example, if it be depressed in its action, suppose by the shock of a sudden shower of water, recovers, not the condition which it had before, but something beyond it. The spring recoils with the same force as that which depressed it: the pendulum swings equal distances this way and that; but the heart with vital force recovers to something more than the force which depressed it. So a muscle which is gradually wasted by exercise recovers not only from the waste, but to something more of power, and becomes hypertrophied. In a similar manner, after a shock, all the parts which have been depressed in their vital functions, suspended, or brought to their lowest mark, recover not merely to the normal standard in which they worked before, but to something beyond that standard; they react with more force than they had even before they were depressed. I repeat, therefore, that however much the phenomena of reaction, even in sharpest form, may simulate disease, they must be regarded and dealt with as those which are the most manifest indications of perfect and strong health; hypertrophies, as we call them—diseases that indicate only the perfection of the vital power in that, being depressed, it does not recover like an inorganic spring or pendulum, but rises to something more than the force which it exercised at some previous time. In this way, however much we may regard the forces of the natural process of recovery, and that they leave us really with comparatively very little to do in the ordinary progress of our Surgical cases, yet there is enough left for us to be done in the cases that pass beyond these; for in regard even to the management of the general phenomena, questions continually arise as to what must be done to meet this or that condition. I think the distinction may be drawn safely according to the question of whether they be events that are natural to the body, and not avertable, or such as come to the body from without, or are bred in it by error from within, and which need, therefore, our more careful search. For with regard to the questions of general management, the single fact of cleanliness, if we take it in its largest sense, will shut out nearly all the mischiefs that come from without; but that cleanliness must be cleanliness of person, of air, of water, and of everything that comes near. And so with diet. On this there may be more question, at least there has been more question; and I venture to think that if all are not agreed, yet all will be soon completely agreed, for the pendulum of general opinion which swung to one extreme some thirty years ago, and very nearly swung to the opposite extreme some three or four years ago, is now setting back into the more just medium of moderation. I remember that one of the first cases I ever took, some thirty years ago, was that of a man who had the greater part of the lower jaw removed for a fibrous tumour. It was long before the days of chloroform. The cutting part of the operation occupied upwards of an hour; the patient remained on the table more than a hour and a-half, and he left at the close of the operation greatly exhausted, though he was a young and very healthy man. For the three days following the operation he received three tablespoonfuls of milk per diem, and about a pint of milk-and-water was in each day injected into the rectum. The rest of the diet for the remainder of the case was after the same scale. He recovered with remarkable quickness, and without one hindrance to his good progress; and I remember that the operator, in a clinical lecture upon the subject, said he ascribed so remarkable a recovery to the great abstinence that was used. The diet in such cases, he said, could not be too low. At the present time, perhaps, in some places, certainly in many places not long ago, the same patient would have been plied with wine or brandy, and with all manner of food; and I have little doubt that he would have recovered as well, as speedily, and as perfectly, for I have seen the same oppositions of practice carried out without mischief in the last few years.

But then, what is the reason of this apparently equal success of two opposite methods of treatment? Certainly not that they are adapted to different times or different types of disease; for I repeat that I have within my own experience the last few years seen or practised them both without damage; but that between the two there runs the natural process of recovery, which is, in health, in all persons not already tainted with great disease, so certain, that neither excess nor deficiency of diet, nor surfeit nor starvation, can always avert it. Let me not seem to be indifferent as to how a patient should be fed after surgical operation. I cite these apparently equal successes of different modes of treatment, not for the praise of either. I have no doubt that either of them, always adopted, would sometimes do great mischief; but taken together, and with the evidence afforded by cases that are left alone, they are very strong tests and very strong proofs of the sufficiency of the natural process of recovery; that if they be left only with such rules of prudence, of personal cleanliness, of sufficient, even of liberal, mixed diet, it is, for all the ordinary cases that will come within our charge, amply sufficient not only for the repair of the wound, but for the recovery from those general injuries which patients sustain by operation.

I think, therefore, we may boast—it may be we have to regret that the boast could not come sooner—we have to boast that we can now treat our patients, after operation, in a natural and reasonable way, in full reliance on that which is one of the first principles of our construction—that we are

made to bear, not only the stress of all the ordinary events of life, but the stress of injuries; prepared, as I said before, not only for the calm but for the storms of life. And herein I think that Surgery has made a considerable contribution to that study of the natural history of disease which is becoming one of the most pressing wants of our time. What will happen if this or that disease be left to itself, or only just so managed as the comfort of the patient, or his obvious means may suggest? The question has been asked very often, but it is very rarely answered; and yet it must be answered before we can judge rightly of the value of any Medical or Surgical treatment. Till we have made our standards of what the progress of disease is if left alone, we cannot judge of our own power in controlling, or amending, or remedying it. Surgery has done this in regard to injuries. And let it not be thought that, by thus reducing the practice of Surgery, in ordinary cases of operations, to the mere watching and guarding of the mischiefs that may happen, we thereby diminish the value of the Profession, or degrade it. The Obstetrician has not done so by giving up the meddlesome midwifery of former ages, and, certainly, that branch of our Profession was never more honoured nor more useful than it is now, when it confines itself in all ordinary cases to the watching of the perfect ways of nature.

So let the Surgeon stand by and watch; let him be content if he can keep out mischief—always a very difficult task. Let him be well content if he can do that which is much more difficult—control the restlessness of popular or half-informed ignorance, which would be perpetually, either in its audacity or its fright, endeavouring to amend the perfect ways of nature. Or if he be ambitious of more than this, he need not wait long, for easy as our course may seem when all runs smooth, we soon find that the whole grasp of our knowledge and the whole strain of our mental power is not more than enough to meet the difficulties of the case when anything runs counter to the common course of nature. Now let me speak of some of these, and chiefly with the view of indicating what may be the chief subjects and the chief course of our future study of them. I mean, namely, those cases which do not proceed thus smoothly and quietly according to the common course of things, in which every patient submitted to an operation should recover, as our common expression is, without one bad symptom. And here I must say generally, that it seems to me that what we chiefly need is a more minute and exact record of all our cases—of cases, namely, not only where the operation ends in death, but of those in which it brings in any mischief—even some of the smallest.

There has been excellent work and most laborious done in tabulating the cases of the mortalities after operations, and it has been done so well that it seems ungracious to say that it is time now we should be doing something more or something better. And yet it is certain that we do want to know now, not merely the total mortalities of any considerable operation, but in each Hospital, in each private practice, in each place, and after each mode of treatment, not only the whole amount of the mortality, but the particular causes which have led to it; nor only so—the particular causes, if we can ascertain them, which have led to hindrance in the ordinary process of recovery. Now, first there are certain cases which confuse our records in that they ought never to be mixed up with the results of operations as being in any sense due to them—namely, cases of hernia, tracheotomy, and trephining; for of all these we may say the operation itself does not cause death; the only fault to be ascribed to it is that it does not always save the life.

But we have no right to reckon these as cases due to operations. Every Surgeon who has performed these operations has had to regret a very large mortality from them; but mortality has not been because of anything that he has done, but because solely of the insufficiency of his means. For myself, among all the cases of this description that I have operated upon, I am not sure that I have ever lost a patient directly and truly as a consequence of the operation; yet nearly half of those upon whom I have operated for hernia have died, and more than half of those for tracheotomy, and nearly all after trephining. But all those were cases after the operation, not in consequence of it. They were vain, yet quite justifiable, attempts to save lives that, but for the operation, were only yet more certainly lost than they were lost afterwards. These cases, therefore, should not be allowed to swell our tables of mortality. They may be studied most carefully, but they must be studied as special cases where the history of the disease cannot be altogether separated from the history of the operation. And there is yet another class of cases; those, namely, in which patients after operations die of diseases that, as it were, fall casually upon them; the deaths, for example, from typhus or typhoid fever, from scarlet fever, from scurvy, and the rest; these should not properly, or without explanation, swell our tables of mortality. Only in dealing with these we need to be very honest.

Sir Astley Cooper used to tell that in going over the wards of a foreign Hospital with one of its most distinguished Surgeons, the Surgeon told him that in his practice amputation of the shoulder-joint, which he had often performed, had never proved fatal. In the course of the same morning Sir Astley Cooper found in the dead-house the body of a man whose arm had recently been amputated by that Surgeon at the shoulder-joint with the wound unhealed, and he asked the reason of it. The answer was, "He did not die of the amputation, he died of pneumonia," that is, as we should say now, he died of pyæmia, one of the symptoms of which was the pneumonia, which never would have happened to him but for the operation by which his arm was removed. We need therefore be very honest in these cases, the more honest because there is so great a temptation to be the reverse, and the fraud is so easy, to assign a death to that which looks as if it were the consequence of something failing by accident upon the patient, although that accident, but for the operation, would never have befallen him. But, setting aside these cases, let us look at those which do really belong to the history of the operation, which it is our chief business to avert; and first of all respecting deaths from shock. My impression is that they are extremely rare. I can scarcely remember to have seen one that could be fairly assigned only to the shock of an operation, and my supposition is that these become much more rare now than they were in former times, partly by the influence of anæsthetics, and partly also by the more liberal and more natural way in which we treat our patients before the operation, so that they can come to face the difficulty, not with the least but with the most strength we can give them.

Nevertheless, such cases do happen, and it would be well if we could so analyse as to be able to assign in each case which particular constituent of a shock was the cause of death; for example, the loss of blood, the great impression of alarm and terror on the mind, the influence of an anæsthetic, the great violence done and impressed, whether consciously or not, on the nervous centres, and from them reflected not upon the heart alone, but upon every organ of organic life—how does each of these contribute to the general total of a shock? Cases could be adduced where each of them alone has been fatal; but when all concur, as they do in almost every Surgical operation, it may be very difficult, and may seem almost impossible to assign to each its proper share in the general result of great danger or death from shock. Yet it is very necessary to study them as if we could decide which has contributed most largely or which has been alone sufficient, for clearly we have to deal, not with shock as a total result of an operation, but with each shock standing alone. According to its source, so must be the measure of its treatment. My impression is, that in recent times it has become too customary to regard the loss of blood as the greatest mischief done in producing the shock, and to consider too little the impression upon the nervous system, which being not consciously perceived, through the influence of anæsthetics, is apt to be overlooked.

I would indeed spare blood with all caution; but not so much from the fear of any immediate consequences, as because a large loss of blood seems to make a patient more liable to erysipelas and pyæmia, and the other subsequent mischiefs of an operation, and certainly makes him less capable of recovering from them if they do befall him. But it is still my belief that that which we have most to study in regard to the phenomena of shock are the results produced by great violence done on the nervous system, of which I observe that they are less considered in the present day only because we are not aware of them, through not being aware of the amount of suffering endured by the patient under the influence of an anæsthetic. I know no case in which the courage to do little is more necessary than in watching the patient after a shock of an operation; for great energy in treatment may certainly do great mischief. It is quite enough, from whatever source the shock may come, if we can maintain life for a time at a very low

level, and if we can do this by the smallest sufficient quantity of stimulants, especially, in these cases, of brandy; for if we can do this, then time and the natural process of events work quietly for the recovery of the patient; and we may be nearly sure that if he can be so maintained, then reaction will of itself, and almost necessarily, ensue; and we may believe this, notwithstanding a temporary deepening of the influence of shock, for I think, if others will watch it, as I have done, sitting by and noticing the case almost minute by minute, they will find —and it may be of some interest even in a physiological inquiry—that the recovery from shock is not a direct and continuous ascent from the deepest depression to the most complete reaction, but rather a vibrating and undulating one.

The patient is now better, and then again without interference becomes of himself worse; and as we watch it thus it is rather like the rising of waves in a flood-tide; each one is a little higher than the one that preceded it, until at last there comes the full sweep, and reaction is fully accomplished. And sure I am that a great deal too much interference takes place with shock by those who do thus even minutely watch it, in the fear that the least depression is perilous, and must lead to a yet lower and lower depression still. I have said, too, that the deaths from reaction are probably even less numerous than those from shock. I doubt if I have ever yet seen one of them; and I doubt very much whether genuine reaction, even if it runs up into an acute traumatic fever, needs to be in any way interfered with, or is at all prone to lead into fevers of worse or more perilous type. The larger risks are in those in which reaction is not complete. There are some patients, it will be found, who never rise into a reaction—never rise, that is, after an operation, to anything more than the natural level of health. Now, I am not prepared to say that this is dangerous. I always watch them with great and scrupulous care; for there is, as every Surgeon knows, a certain condition in which it may be said that the patient is too well after an operation. He has not recovered even to that discomfort which consists in full reaction.

But many of these will pass by, and may, perhaps, for aught I know, illustrate the most perfect method of recovery, where only health is regained. But certainly there is peril when in some patients the reaction is too faltering, faltering more than it should, not only undulating, but each of its waves falling a little more than it rises. Again, there is great peril in reaction that is too long delayed, for certainly the more reaction is delayed the more likely it is to slope into a greater mischief; and certainly these are not cases to be left alone; in all of these reaction need be accelerated by stimulants, and brought more nearly to the time at which it should of itself and spontaneously recover. And more perilous still are the reactions that are attended with hurry and confusion, with disorder, and restlessness, and delirium or convulsions, or with great expenditure of any kind of force—all these are perilous; they are cases of what has been described as action without power. They are difficult to explain physiologically; and yet I suspect most of them would be found to occur in those who have, if I may so speak, a natural instability of constitution; for in all these, as soon as the natural balance and stability of life are disturbed, there seems to ensue a rapid waste of structure, and with that a rapid and purposeless production of force.

For all these there seems to be one great remedy, namely, opium, which acts, I suppose, not merely as an anodyne, but by the singular power which it possesses of hindering waste, and thereby preventing the production of purposeless force, which is certainly the consequence of accelerated waste. Now, the reactions that I have spoken of have been general. As the shock falls directly or by reflection upon every part of the body, not on the heart alone, observe, but upon every part of the organic life, so, commonly, is the reaction general, and every part has its due of just work in it. But chiefly and especially the force, both of shock and reaction, falls upon the part which is the very seat of injury, the very seat of the operation. Or if great violence be inflicted, there may be for a time a total suspension of all nutritive processes, and the part may die; primary gangrene may ensue, or escaping this, after the suspense there may come a much more than normal reaction, a much more than normal exercise of organic force, an acute inflammation; nevertheless, this acute inflammation is never, so far as I have seen in any of the external parts, the consequence of more than local mischief.

We see, for example, after an amputation, or an operation on the face, that great and active inflammation ensues, but it does no other than a local harm. It may spoil the healing of a wound; it may give rise to a recurrent hæmorrhage; it may produce too great suppuration; it may even produce a primary local gangrene; but with this it stops, and never, so far as I have seen, leads to death, or to any more than a local calamity. But sometimes when the operation has been performed upon parts of great extent or of great importance to life, this local reaction, which may be observed completely independent of the general one, may be fatal. Thus, for example, patients die rapidly sometimes after ovariotomy, of a suddenly fast-setting-in peritonitis; and this, although the phenomena of a general reaction may not have been clearly established; and it is to be observed that they die as patients die with peritonitis after perforation, or as they die sometimes with rupture of the intestines; they die as if with shock, with a sudden setting-in of extensive and acute disease. Deaths of this kind are growing more rare still than they used to be, for I think we know better now how to treat them. Deaths of the same kind used to occur more often than they do now from lithotomy; patients died then within one or two or three days after the operation, from some sweeping inflammation of the peritoneum or pelvic cellular tissue; and I think they died more commonly then than they do now, when they were treated with bleeding or with other antiphlogistic treatment; for the things to be met are not merely the phenomena of acute inflammation, but the shock which the setting in of such inflammation produces, or, if I may so speak, reproduces. Before they have recovered from one there comes in another shock, and that shock proves fatal. The treatment for them should be, not by bleeding, but stimulants. Although these cases may have about them even the signs of an acute peritonitis, stimulants and opium must be given till the shock is completely gone by. Now these cases of which I have spoken—and I might mention some more, especially those of primary and recurrent hæmorrhage, as sources of danger or of death—these all might, in the more accurate and minute records to which I wish to move the Society, form a group as it were by themselves, for they all are the results of mischiefs which are, so to speak, the more or less of natural things—of things which we cannot altogether avert; and with these I would class one which comes sometimes in one group and sometimes in another, namely, the use of chloroform. I could not find terms strong enough to speak of the value of anæsthetics for Surgical operations; and let me say, not only for their mercy's sake, not only for the saving of pain, but for the abundant good that follows afterwards—the loss of that impression with which patients awake every morning from a disturbed night's sleep, the loss of the reflection and memory of the operation, the great diminution of all that shock that was dependent upon absolute pain, whether the pain were reflected from the nervous system or not.

All these things are so great blessings, that one seems to be ashamed to detract in the least measure from the influence of anæsthetics, and yet I must mention one. I have said that great energy of treatment may be a great mischief in the treatment of a shock after an operation. I mean that it is so if after the profuse giving of stimulants or of food of any kind sickness be produced; for amongst all things which can complicate the depression of a shock vomiting seems to be the worst, and unquestionably this will sometimes follow the influence of anæsthetics, and when it does follow, I know nothing except time by which it can be averted. I know it can be prevented commonly by giving the patient only the most light and digestible food some two or three hours after the administration of the anæsthetic, and by great care over the digestive organs. But notwithstanding these, it will sometimes happen, and it complicates with great severity the occurrence of a shock; for when it begins, so far as I know, medicine has no control whatever over what we call chloroform sickness. I know nothing that will stop it.

It will stop in time; after a few hours in some; after a few days in others. It is of no mischief to all the cases of minor shock; but for all the larger ones it is, unquestionably, a great addition to the peril, and I cannot doubt that it has sometimes been a fatal one. It deserves, therefore, the most careful study of all the members of the Association, and of all that can contribute to its remedy. But when I say this, let me also say that this is the only mischief that I know of it. There are never wanting those who will ascribe to anæsthetics certain deaths which ensue after operations in which the shock inflicted has been comparatively small. Patients have submitted to minor operations, and in a few hours they

have been in great peril, and in a day they have died; and it seems to be forgotten entirely that cases of this kind not only occurred, but were, as I believe, much more frequent, before the introduction of anæsthetics. There is an admirable work, which is familiar, I am sure, to all the older members of the Association—Mr. Travers on "Constitutional Irritation;" and there they will find abundant instances of this—where patients, after comparatively the most trivial operations, have died, as we must believe, under the influences of shock; the only singularity of their case was that the cause was apparently so trivial; but if those cases be referred to, it will be evident that the influence of anæsthetics is excellent in preventing deaths such as these by diminishing what in all probability was the chief cause of shock here—namely, the great mental alarm, pain, and dread of the consequences of the operation.

Now let me pass to another set of cases, which come in larger number, as the results of operations, and which are different from all that I have spoken of hitherto, in that they are not strictly to be called inevitable; they are not in any sense the more or less of the necessary consequences of the operation; rather, they come from those things which, it seems to us, if we can be bold enough to cast our eyes forward, it is not only our plain duty, but within our ability to avert,—those, namely, I mean, which partake more of the characters of diseases, and which we may believe are severally due to specific morbid alterations in the blood, whether due to mischiefs coming to the patient from without, or to those that are bred within him by the results of the operation. It seems to me very important that we should be quite clear in recognising all these cases of erysipelas, of pyæmia, of phlebitis, or nearly all of them, of secondary gangrene, of tetanus, and the rest, as really, and from their beginning, constitutional; as general, that is, before they are local; for if we might do so, then we might study them by the light of those which are the very types of these diseases, these acute morbid affections of the blood, namely eruptive fevers, and study them by the light not only of their pathology, but by that which we have already learned to do in their management or their treatment. It is quite true that erysipelas or phlebitis is most apt to appear at the seat of the operation, and to look, therefore, like a disease of purely local origin, but the same will happen with the truest eruptive fevers.

Some few years ago I cut a boy for the stone; three days afterwards he seemed to be in great peril of his life, with general disturbance of his system; the day after there appeared a brilliant red eruption at the wound. That was measles—earliest, most intense, at the seat of injury, and thence it spread over the whole body, and passed by without doing damage. I have known the same case occur with scarlet fever after an injury to the knee-joint. Dr. William Budd has recorded a similar case of small-pox after a bruise upon the nates. So that really this local occurrence of erysipelas or other diseases at the seat of operation is no more proof of their true local origin than in these cases. Measles was not proved to have a local origin because it occurred first and most intensely at the wound of lithotomy. And there is another character, one which seems to me very important in relation to the diagnosis between these diseases that are of true traumatic origin and purely local, and those which, although they occur at the seat of injury, are yet truly specific and of blood origin—namely, the difference of time at which the local inflammation will, in the several cases, set in.

A true local and traumatic inflammation comes in either before, or with, or very little after the time of general reaction; so that within one or two days, usually, we find it at the wound, or it may be later—three or four, or in some cases even five days, when the general reaction has been long delayed. The later it is the worse. On the other side, that which is a specific blood-disease comes in after the reaction, and commonly even with considerable interval of time between the two. Thus, for example, we may find not unfrequently after an operation on the face, where these phenomena are best shown, or after amputation, the next day or two days later, the parts around the wound may be swollen, œdematous, painful, and ruddy, the seats of active inflammation. But this is not erysipelas, nor a disease of any great moment, nor one that will tend to more than local troubles. I have never seen a case of that kind which required any active treatment. But after it is passed, if it has ever occurred—and it may be even many days later—there may set in another inflammation, looking, it may be, very like it, with similar swelling, redness, tension, and pain, but the later inflammation is sure to be one of erysipelatous or pyæmial origin, or in some other form specific. So, too, with phlebitis. On the day after the amputation the femoral vein, for example, may be sharply inflamed, tender, and painful, and with some constitutional disturbance; but this is never a disease of great moment; it passes by without treatment. But in that respect it is very different from the phlebitis which may ensue a number of days later, and which is quite surely pyæmial, or connected with some grave affection of the blood. I know, therefore, in these respects, nothing more important than studying the very time at which these inflammations set in. If they be early and only traumatic, they pass by without damage; if they be late, whatever the result, they must be regarded minutely as cases of general pyæmial or erysipelatous origin, indicating something wrong about the patient or within him—something to be amended.

There is yet another character, namely, that inflammations, of however acute a kind, which are traumatic, are very seldom preceded by any appropriate constitutional disturbance. It is remarkable that it should not be, but we never see them thus preceded. On the other side, those that are of general or blood origin very rarely ensue without rigors, or some profound affection of the nervous system. In speaking of rigors, if I may diverge so far, I wish I could provoke some one to the more minute study of them, to see what their true physiology is. What is the meaning of that strange shuddering which we see as the precursor of some of the most formidable diseases that we have to deal with? so strange as it is, too, in its relation to the urinary organs, so often the precursor of great mischiefs; so strange in its relations to an accumulation of pus that cannot be discharged. I fear that we are as yet almost wholly ignorant of its physiology; but I would suggest—and let it be my contribution to the study I should like to incite some one to—that we are too much in the habit of thinking that its most important indication is in the sensation of cold which most patients endure with it. Yet this is really only a sensation; and, moreover, only a subjective one; for it is certain that, even before the rigor ensues, the temperature of the surface of the body is increasing, and that it continues to increase during the whole course of the rigor. I would suggest that they should be studied rather in relation to convulsive diseases; and my reason is, that they not only in a thorough rigor have all the essential characters of convulsion, but may also, as Surgery sometimes unhappily shows, be replaced by convulsions.

Three years ago I operated on a gentleman for stone. Two or three days after the operation he had a terrible rigor, and that was followed by great heat, profuse sweatings, and then by extensive suppuration over the surface of the chest. A few days later, another rigor ensued with similar phenomena subsequent to it, and with other characters of pyæmia, and with a second great suppuration. Some days later than that he had a severe epileptic seizure, and that was followed in the same way with a profuse suppuration, again in another part of the walls of his chest, and then with various signs of phlebitis he gradually recovered.

Not long ago a woman was under my care in St. Bartholomew's Hospital with relapsing erysipelas. All the previous attacks of erysipelas were preceded with definite rigors. A rigor regularly told of the coming relapse of erysipelas, but the last attack was preceded by severe convulsions, and they were followed by three days' coma, and the coma was not relieved until the erysipelas appeared. For the rest of her life she had no further cerebral symptoms, and after her death we found no indication of disease in the brain. She had died only exhausted.

This case has been told me. A member of our Profession had chronic pyæmia; in all the earlier parts of his illness each suppuration characteristic of it was preceded by a rigor; in the latter part tetanic convulsions preceded each suppuration. I could mention, I think, other instances in which convulsions do thus replace and substitute the ordinary phenomena of a rigor. I imagine, indeed, that those that are familiar to many members of the Association, convulsions that precede eruptive fevers in children, are of the same kind. But this must suffice for the suggestion I have made, and I am diverging too far from the subject that I began with, which was, namely, to indicate by those precursory constitutional symptoms the necessity of distinguishing clearly between those inflammations that are truly local, and those that are pyæmial or of erysipelatic origin, and by that to tell what seems to be a

greater need, that we should study all these diseases by the light of the true eruptive fevers; I mean, namely, all cases of erysipelas, of pyæmia, of secondary gangrene, of secondary phlebitis, and even, I would add, of tetanus, and all others that we have to class together as the great source of our mortalities after operation.

But the mere enumeration of these cases must be sufficient to tell that I cannot speak of them all now; only let me take the liberty of mentioning one or two things that have been most upon my mind, as most worthy to be told to those that have a large and widely-extended practice, and who might, with their contributions, bring in such a mass of evidence upon the point as has never yet been accumulated. First of all, in regard to the causes of these things. We know very well that among the general external causes for all these mischiefs, there are the crowding of patients into too limited a space, that is, into spaces where they have too limited a supply of air, uncleanliness—in a word, if I might sum it up quickly—dirt of all kinds, within or without; and for internal conditions, we know very well that those patients are most prone to them who are, as we may believe, most unstable in their composition—namely, those whose tissues are disordered, either by defective food, or by intemperance, or by excess of animal food, or those who retain in their frames too large a quantity of refuse—matter not sufficiently excreted—as the gouty, and above all, those that suffer with granular degeneration of the kidneys. We know well enough that in any of these the ordinary consequences of a Surgical operation are sufficient to bring in that morbid condition of the blood, which manifests itself in erysipelas, pyæmia, gangrene, or some other source of fatality. But my impression is, that there are yet some other causes to be sought for; for where even we may believe that all these are absent, yet these plagues come in. For example, I do not know that we can assign any one of these diseases to be a product solely of Hospital practice. I must say for myself that I have never seen one of them more intense or more fatal than I had seen it in single cases amongst the best and most well-ordered houses of the Metropolis; certainly not one that I could mention which has been worse in St. Bartholomew's Hospital, than I have seen it in a house, in a room, and under a charge with which I could find no distinct fault. It may be said that in Hospitals we can never altogether exclude the sources of foulness and infection. I am not prepared to say, I am only prepared to doubt, whether they may not exist also even in our best houses; whether our sanitary arrangements are anywhere so perfect as to shut out the sources of even the worst form of zymotic disease.

I can only suspect that there are yet some things hidden. I cannot yet profess myself prepared to believe that there is no one of us living in such conditions of external health, but that after an operation there is that lying at his bedside which will breed some dire calamity to him. But I would suggest here,—not only to Hospital Practitioners, upon whom, most unjustly, as it seems to me, the whole burden of proof of these cases has been hitherto cast, but to those who practise also in private,—that in every case where any one of these diseases occurs, we should most conscientiously try, and that we should look for its source to the Hospital or the private house, or the practice should be brought to a strict trial,—a private trial, if you will,—but a just and a true trial before our conscience; and if the Hospital, or the house, or the practice be found faulty, let it be condemned and be at once amended. Another point I would suggest is, that it is not enough for us to study these things only in their worst forms, in those in which they are deadly, for we can never know the true extent of a mischief if we know none but those whom it kills. If a patient barely escapes with his life, or even in the process after an operation he passes through any peril, even of the least, he may indicate as great a necessity for amendment of the conditions in which he has been placed, as if he had died. This is true of erysipelas; and there is a thing to be considered, that, seeing how vast are the differences between the worst and best cases, it may be quite within our power to reduce the whole of the cases that do occur to the condition of the lowest peril.

But much more, it seems to me, is this the case with pyæmia, or rather with the group of diseases which we have to include under the most inappropriate of all terms, a term not only insufficient, but altogether false: for the one thing there is not in pyæmia is pus in the blood. Look only at the number of cases that are included in this disease, and the number which altogether elude not our observation but our record. There are, first, cases of acute pyæmia, well marked by rigors, by profuse sweatings, by rapid exhaustion, by articular suppurations, by pneumonia, deposits of pus here or there, and rapidly fatal. These are the cases that swell up our records of mortality; but there are others which ought to be recorded and studied with equal care,—namely, the chronic, where the same series of phenomena ensue, occupying only a longer time for their occurrence; and again there are yet others as truly pyæmial, those which are seldom recorded at all,—namely, those in which there are but threatenings of these conditions. Patients that have repeated rigors, slight pains about the joints, and abscess at some distant interval of time, pass through their course with that which looks scarcely like peril, and yet it may be the very same disease which, overlooked in the Hospital, may cause the deaths of all patients that next come under operation; and again, there are yet others, cases that after an operation pass on with one abscess after another. All are familiar with these, but they are not reckoned commonly as pyæmial. The whole history of their occurrence, and the most accurate comparison of them with others of the same acute type, shows their identity, and there are yet others, where patients after operations are attacked with inflammation, first in one vein and then in another, then with induration of the subcutaneous cellular tissue, then with a small deposit of pus that is soon discharged and healed up. These again are cases that we need minute record of, that in all Hospital practice should be recorded, in regard to the grave question whether these might be avoided; for I venture to say, if we can avoid these more local manifestations of the poison, so surely we can avoid the more principal ones.

I have said that one advantage of studying these cases by the light which we have from those that are the express and typical examples of blood disease of the acute form, is that you have to treat them after the same method as we now deal with the eruptive fevers. I know, indeed, that with regard to these our Medical power can scarcely be spoken of as in any strict sense curative—we manage them.

I wish Surgeons could manage pyæmia as well as Physicians and General Practitioners can manage scarlet fever or eruptive fevers that they have to deal with; but still even they do manage more than cure them. And yet let me suggest that there is great hope that we may discover absolute specifics for these things, when we see that some cases or some symptoms may be cured with apparently a true specific power; for example, the recovery of certain patients from erysipelas under the influence of large doses of iron, so definite that one must surely speak of it as a true specific for the disease in those cases. No one, I think, has been more disappointed than myself in the endeavour to make iron useful in all cases; but no one can be more convinced that there are certain cases in which iron is a direct and distinct cure for erysipelas. Quinine has in some cases a power of the same kind. It cures, as Dr. Latham says, outright, and in the strictest sense. And having occasion to mention that honoured name, let me congratulate the members of the Association on the rich treasury of knowledge which he has lately contributed to the Profession—knowledge which shows him so old in experience, so fresh in intellect, so strong, as he has always been, both in the power of thinking and in the art of telling others what he thinks.

And there is another remedy of this kind. Quinine in large doses will cure the rigors of an acute pyæmia almost as certainly and as swiftly as it will cure ague; and curing these by what seems to me a distinct and specific power, it will sometimes help materially to the final recovery. But I cannot profess that I have seen it do more than thus help; and if I look back to the records of the many trials and many disappointments I have endured, I think there is but one thing that I have ever seen have such as I should call fair remedial power over pyæmia: that is, a profusion of fresh air. The most remarkable recoveries from pyæmia—they are three—that I have seen, were those in which the patients may be said to have lain day and night in the wind. They lay with the wind blowing all round about them through the room. They so lay, that I have said that I wished they could hang our patients in beds outside of the Hospital, rather than within the walls. But it is time I should have done; and though out of the abundance of my ignorance I could go on for a length of time, telling of things that I think require our most careful study, let me only end by impressing on you some of the great motives that we have to make this the chief

subject of our study: I mean the means by which we may reduce the mortality after our Surgical operations.

I need not dwell upon our selfish interest in the matter; I need not speak of the disappointments and deep regrets that we should save ourselves, if we could only, by some measure, reduce the mortalities of these things; but rather, see that the whole course of surgery of late years has been such as to render the performance of Surgical operations more and more feasible if only we could greatly reduce their mortality. They can be done without pain. The after-treatment may be now conducted with so little pain, that I should count it as a matter of mismanagement if, in any ordinary cases, a patient complained at all after the first or second day.

The rules for operations are every year improving; the education of students in them is every year advancing; constantly our mechanical appliances are improving and drawing more near to perfection; and witnessing the cases of ovariotomy and resections of joints and others, we may safely say every year adds to the number of those things that should be done to save life. Yet over all this, which might be so bright, there hangs a cloud—as it were, a dark pall.

We cannot do these things without risk, and often without too great risk to life. Our risks in amputation are counted by the mortalities of from fifteen to fifty per cent.; after amputations of the breast, from five to ten per cent.; after lithotomy in the adult, twenty, forty, or fifty per cent.; and even after minor operations the mortality ranges in every one's practice, I suspect, to two, or three, or sometimes even more than that per cent.; and it is because of these things that we are driven sometimes to tedious and painful substitutes—to caustics, to the écraseur, and lithotrity; and we learn from abroad of tolerated barbarisms, of practices which might lead us to think that the whole art of dexterous surgery was lost. We learn of limbs amputated and of eyes extracted by caustics—of limbs wrenched off, after crushing of bones and crushing through their flesh; and this is justified in the minds of the Surgeons—for they are Surgeons by whom these things are done—on the plea that a cutting operation is of so great risk that there is no substitute too bad for it.

To amend this is the task that we have before us; and with what heart may we go to the work? Why, surely, with very good heart, if we see what is done in some places and under the best care, and contrast the results of the best circumstances with those of the worst. Let me cite only three cases. A very distinguished member of our Association, Mr. Hussey, records from Radcliffe Infirmary, Oxford, that the total mortality after amputation is only thirteen per cent., and the mortality in the Parisian Hospitals is upwards of fifty per cent.; and he states that of fifty cases of amputation performed in that same Infirmary below the knee there was but one death. Mr. James records from the Exeter Hospital that the total mortality of all amputations is only fourteen per cent., and amputations after disease have a mortality of less than nine per cent. So Dr. Humphry, again, records from an Hospital in Cambridge, that the total mortality of amputations of the lower extremities, observe, is only sixteen per cent.—a mortality which rises in the Parisian Hospitals, which are far from being the worst in Europe, to upwards of sixty per cent.

These are the things that have been achieved, and these are the things which it is the express duty of every Hospital and private Surgeon to see that he achieves in his own practice; for we should go to the study of these things with the consciousness that a great part of the deaths that still remain are not inevitable; that by more care and scrupulous attention, not perhaps in our own practice on the very patient himself, but in all that surrounds him, these mortalities might be reduced. Even in Paris, within the last twenty years, the mortalities from great operations have been reduced by at least ten per cent.

Now, so much, and more than that, must be done in England; and so much, and much more than that will be done, if the members of this Association will say that it shall be done, and will act vigorously on the decision.

The Chairman then read a letter from Dr. William Ogle, proposing the following resolution:—"That a Divine service held at the commencement of the anniversary meetings of an association for the advancement of science involves a principle which is sound and most important, and that this meeting cordially assents to the proposal, that the British Medical Association shall act upon this principle at its future meetings;" also a letter from Dr. Hodgkin, recommending for consideration the subject of the weights and measures to be used in medicines.

Discussion on those subjects was deferred till the following day.

The following paper was then read:—

Suggestions for Inquiry into the Action of Medicines. By C. Handfield Jones, M.B., F.R.S.

Dr. G. Webster proposed; Dr. Farr seconded, and it was resolved:—

"That a small committee be appointed to inquire into the action of medicines; that Dr Handfield Jones, Dr. Acland, Dr. Fleming, Dr. Farr, Mr. Crompton, Dr. Hughes Bennett, Mr. Hodson, Dr. Webster, and Dr. Harley, be the committee, with power to add to their number."

Dr Brown-Séquard related a

CASE OF INJURY TO THE SPINAL CORD.

Owing to want of time, the Author was unable to do more than make a few remarks on the case. A man, in 1853, was stabbed in the back of the neck. The interest of the case consists in this, that the patient had the same symptoms as result from section of one lateral half of the cord in animals, viz., paralysis of motion on one side of the body, and of sensation on the other. The case is a valuable one, in illustrating the views deduced by the Author from experiments on animals.

The following papers were then read:—

The Use of Iodine in the Treatment of Affections of the Head in Children. By R. T. Evanson, M.D.

Some Account of a Case in which Internal Cancer was Removed from the Orbit. By C. H. Moore, Esq. [The patient was brought by Mr. Moore to an adjoining room for examination by the members.]

On the Question—Is Alcohol Food? By T. Inman, M.D.

On the Non-Alcoholic Treatment of Disease. By H. Higginbottom, Esq., F.R.S.

REPORT OF COUNCIL.

Dr. Williams read the following Report:—

"It affords your Council sincere pleasure to meet the members of the British Medical Association in the Royal College of Physicians in London, and to feel assured that the cordiality which characterises the welcome given by so many eminent Physicians and Surgeons residing in the Metropolis is thoroughly reciprocated by their brethren from the Provinces. Your Council congratulate the Society on having a programme that promises so great an intellectual feast; and they entertain no doubt that the present occasion will be attended by the happiest results both in a scientific and social point of view.

"The Committee of Council elected at Canterbury have conducted the general business of the Association, at their quarterly meetings, held in Birmingham; and beg to acknowledge their obligations to Sir Charles Hastings, who has uniformly acted as their Chairman.

"During the present year, 130 new members have been enrolled. Since the annual meeting in 1861, there have been seventy-five resignations, thirty deaths, and twenty-five erasures; making a total number on the books 2120.

"*District Branches.*—The district branches continue to prosper, forming very important elements in the stability and welfare of the Parent Association. Your Council desire to bear testimony to the zealous discharge of the arduous duties of the Honorary Secretaries, and again to thank them for their very valuable co-operation.

"*The Journal.*—Your Council have great pleasure in stating that the Journal continues to be highly appreciated under the editorship of Dr. Markham. They would still urge members to place the valuable materials constantly in their possession at the disposal of the editor, as it is impossible for him to do justice to himself or others if associates fail to contribute the results of their study and observation to the pages of their own periodical.

"*Finances.*—The following is the Financial Report for the year 1861, published in the Journal, in accordance with Law 23, the accounts having been duly audited by Dr. Melson and Mr. Hadley, of Birmingham.

"Sums received and paid by the Treasurer from January 1 to December 31, 1861.

RECEIPTS.	£	s.	d.
Due from Treasurer	27	18	0½
Subscriptions and Arrears	2050	0	6
Voluntary Contributions	6	10	0
Advertisements, etc.	736	7	3
Total Receipts	2820	15	9½

EXPENDITURE.	£	s.	d.
JOURNAL EXPENSES:			
Mr. Richards (Printing)	1736	8	6
Mr. Honeyman (Sundries)	74	7	0
Mr. Davidson (Commission)	73	10	0
Mr. Orrin Smith (Engraving)	5	4	0
Salaries:—Dr. Wynter, Dr. Markham, and Dr. Henry	325	0	0
Contributors to Journal	306	0	6
Interest and Commission at Bankers	7	3	10
EXECUTIVE EXPENSES:			
Secretary and Clerk	117	0	0
Secretary's Sundries	49	14	6
Error in Secretary's Account	5	0	0
District Expenses; Envelopes; Post-office Orders; and Collecting	14	2	3
	2713	10	7
Balance	107	5	2½
	2820	15	9½

"The following were the Assets and Liabilities on January 1, 1862:—

ASSETS.	£	s.	d.
Subscriptions due	500	0	0
Advertisements	309	0	0
Balance due from Treasurer	107	5	2½
	907	5	2½

LIABILITIES.	£	s.	d.
Mr. Richards for Printing, due December 31	420	16	0
Mr. Richards' old account	116	16	0
Mr. Richards' Publishing Account for 1861	50	0	0
Mr. Honeyman (Sundries)	79	5	2
	666	17	2½
Balance in favour of the Association, Dec. 31	240	8	0½

"It affords your Committee much pleasure to be enabled to present so favourable a financial report; and they feel assured it will be considered very satisfactory by the members of the Association.

"In the financial statement of last year, the Committee were induced to say: 'Altogether, the prospect is encouraging, as there is reason to believe that by the exercise of a prudent economy, the Association will, at the commencement of the year 1862, be free from the old debt.'

"Your Committee are glad to find that the above prophecy will now be fulfilled, as the increased balance in the hands of the Treasurer will enable him to pay off the remainder of the old debt due to Mr. Richards, which has for some time past been a burthen upon the funds of the Association.

"The income of the Society is greater than in the previous year; and this increase of income not only arises from the increased amount of subscriptions paid, but also from the advertisements and sales having been more productive.

"The expenditure has been rather higher. This increase is partly owing to the Association having spent more upon the editorial department of the Journal, of which, no doubt, the members generally will approve.

"With regard to the assets and liabilities, there is very little alteration in them. Both of these items will be found rather more than they were last year.

"Your Committee are well aware, that it will be necessary still to exercise great care in the administration of the funds entrusted to their charge, for the income is but slightly in excess of the expenditure.

"Still, if members will pay their subscriptions with regularity, and the income from advertisements shall continue to increase, there is a fair prospect of the year upon which we have entered showing a satisfactory result.

"Your Council have much pleasure in laying before you the Financial Report and comments of the Committee of Council, and are glad to state that the debt due from the Association to Mr. Richards has been paid off since the report was published in the Journal. They would, however, direct the attention of the Association to the arrears of subscriptions which have been reported from year to year, by which a great loss is entailed upon its funds, and trust that the incoming Council will take steps to secure a more regular payment of the annual subscriptions.

"*Medical Legislation.*—Your Council beg to call attention to the resolution passed at the Torquay meeting, relative to the representation of the Medical Profession in Parliament, which declared that considering the numbers, respectability, and special acquirements of the members of the Medical Profession in these kingdoms, neither are their interests fully attended to, nor their views on sanitary arrangements adequately represented in Parliament.

"The object of the promoters of the above resolution was to impress on the Profession the desirability of the Medical Profession being represented in Parliament. It is, however, clear that we are not now in a position to take any action in this matter, but the Council cannot avoid remarking that the Act of 24th and 25th of Victoria, which provides that votes at the elections for the Universities may be recorded by means of voting papers is a very important measure, as it points out a means by which the registered members of the Medical Profession may record their votes if the time arrive when they may be called upon to return members of their own body to the House of Commons.

"*Poor-law Medical Reform.*—A memorial has been presented by the Committee of Council to the Select Committee of the House of Commons, based to a considerable extent upon the propositions made by Mr. Griffin. The Select Committee has not yet reported on the subject, so that your Council are not able to give any definite additional information.

"*Benevolent Fund.*—A report of the progress of this excellent Institution will be read at the meeting, by which your Council believe it will be shown that the past year has been one of unprecedented utility and success. They earnestly hope that still increasing prosperity will crown the exertions of those who labour for the support of this invaluable charity.

"*Address in Medicine.*—The Address in Medicine will be delivered by Dr. Walshe.

"*Address in Surgery.*—The Address in Surgery will be delivered by Mr. Paget.

"*Address in Physiology.*—The Address in Physiology will be delivered by Dr. Sharpey.

"*Special Report.*—A Special Report on the Treatment of Suspended Animation will be read by Dr. B. W. Richardson.

"*Prize Essays.*—Your Council would call attention to a resolution (published in the Journal in March, 1861,) that a gold medal, value twenty guineas, should be awarded to the writer of the best essay on some subject connected with the Profession at the Annual Meeting in 1862; the medal to bear on the obverse the profile of Sir Charles Hastings, with his name as founder of the Association; the reverse to contain the name of the successful candidate, with the title of his essay. Your Council regret that there is on the present occasion no essay worthy of the medal intended to be given. They however, recommend the offer of a prize medal to be renewed for another year; and trust that, when this prize becomes better known to the Profession, greater competition will bring out greater talent, and enable them to have the satisfaction of awarding the prize at the next meeting of the Association. Your Council also recommend that the departments of Medicine in which competing essays are invited for the annual gold medal shall be announced yearly in the Journal.

"*Honorary Members.*—Your Council recommend, in accordance with Law 18, that the following distinguished gentlemen be elected Honorary Members of the Association:—Dr. Czermak, Pesth; Dr. Eckhart, Giessen; Dr. De Pietra Santa, Paris; M. le Baron Larrey, Paris; M. Claude Bernard, Paris; M. Nélaton, Paris; Dr. Rayer, Paris; Dr. Frerichs, Berlin; M. Langenbeck, Berlin."

FRIDAY.

THE members assembled at 11 a.m. in the Library of the College of Physicians.

THE CASE OF MR. WEBBER AND MR. WELLS.

The following report of the Committee appointed to consider the matters in dispute between Mr. Webber and Mr. Spencer Wells was read:—

"At a meeting of the Committee, consisting of Dr. Westall, Mr. Bottomley, and Mr. Heckstall Smith, appointed to inquire into a charge made by Mr. Webber against Mr. Spencer Wells, of Professional misconduct, the notice required by Law 17 having been read, together with the resolutions by which the Committee was constituted and its duties were defined, it was agreed, after careful investigation, and a personal interview with Mr. Webber,

"'That this Committee is of opinion that no evidence has been laid before them of auy Professional misconduct on the part of Mr. Wells.'

"Signed on behalf of the Committee,

"Edward Westall, *Chairman*."

REPORT OF THE COMMITTEE ON THE ACTION OF MEDICINES.

Dr. Hughes Bennett read the following Report:—

"A meeting of the Committee appointed to consider Dr. Handfield Jones's proposal for an inquiry into the action of medicines, was held August 7, 1862.

"Present:—Dr Hughes Bennett (*Chairman*), Dr. Harley, Dr. Fleming, Dr. Handfield Jones, Dr. Farr, Mr. Crompton, Mr. Hodson, Dr. Webster.

"The Committee, after careful consideration, have agreed to propose to the Association the following plan for carrying out investigations as to the action of remedies. They recommend that six separate subjects be proposed to the members or other Practitioners for inquiry during the first year, viz.:—

"1. The effects of antimony, moderate blood-letting, supporting diet, or stimulants, in pneumonia.

"2. The effect of the oil of the male fern, or of kousso, in tænia.

"3. That of arsenic, moist weak alkaline applications, or pitch ointment, in psoriasis.

"4. That of mercurials, benzoic acid, and podophyllon, in jaundice.

"5. That of chlorine mixture, carbonate of ammonia, quinine, and the wet sheet, in scarlatina.

"6. That of atropia in epilepsy.

"7. As it is admitted that much of the uncertainty of the action of remedies is dependent on our ignorance of the progress of disease, it is proposed that a schedule for each subject should be drawn up, containing the age, sex, and other points requiring attention, so that the information given may be presented in a convenient form. These will be prepared, each by a different member of the Committee, who will take charge of a single subject; viz., prepare a schedule, arrange for its distribution to all the Associates along with the Journal, write an article in the accompanying Number directing attention to certain important points, receive the returns, and draw up a report to be presented to the next meeting of the Association. These labours have been undertaken by the following gentlemen:—Dr. Bennett for pneumonia, Dr. Harley for jaundice, Dr. H. Jones for psoriasis, Dr. Fleming for tænia, Mr. Crompton for atropia in epilepsy, Mr. Hodson for scarlatina, and Dr. Farr for the progress of disease.

"The Committee would gladly advise, also, the selection of a subject for careful scientific investigation, provided it appear to the Association that a moderate sum, say £30, can be raised to defray the necessary expenses. One which they may mention is the physiological and therapeutical action of mercury.

"Some small expense may be incurred in the preparation and transmission of the schedules; but they believe the Association will feel with them that the object they have in view is well worth, and will well repay, the efforts requisite for its attainment.

"Signed on behalf of the Committee,

"J. Hughes Bennett, *Chairman*."

It was proposed by Dr. Radclyffe Hall, and seconded by Dr. A. T. H. Waters (Liverpool)—

"That the Report be received and its recommendations be adopted."

The resolution was adopted, the question of raising the necessary funds being left to the Committee of Council.

Dr. Hughes Bennett then read a Paper

ON THE TREATMENT OF PNEUMONIA, WITH AN ANALYSIS OF ONE HUNDRED AND FIVE CAREFULLY RECORDED CASES.

The following is an abstract of this paper:—The Author said that eighteen years ago, after having made researches into the pathology of inflammation, he was induced to doubt the correctness of the antiphlogistic method of treatment. He considered that the removal of blood could not alter the organic changes in the lungs, and that the strong pulse and fever which were generally considered as symptoms justifying blood-letting, were evidences of Nature's efforts at repair. Instead of antiphlogistic treatment, these efforts should be supported, not necessarily by stimulation, but by nutrients, and also by attending to many circumstances in the progress of the cases. For fourteen years he had been guided by these views, and he had since seen them adopted by the Profession. When the antiphlogistic treatment of pneumonia was in vogue, the disease was very fatal. Andral said that experience showed that we should be very prodigal of blood in all cases of pneumonia; yet of sixty-five of his cases one-half died. In the five years 1832 to 1837, one-third of the cases of pneumonia treated in the Edinburgh Royal Infirmary died. The practice of M. Louis, in the Hôtel Dieu, was equally unsuccessful. The Author's practice had been to support the strength of the patient, and when depletion was practised it was to palliate dyspnœa, and not with the view of reducing the force of the circulation. Of the 105 cases of pneumonia in adults 3 died; the average rate of deaths, therefore, being 1 in 35. The average age of the patients was $31\frac{2}{3}$ years. The number of uncomplicated cases in which one lung only was affected was 58, and the average duration of the disease in them was $13\frac{1}{2}$ days. There were 19 cases in which both lungs were affected; average duration, 20 days. Seventeen cases in which the disease was complicated; duration, $15\frac{4}{5}$ days. There were 8 cases in which it was impossible to ascertain the duration. The average residence in the Hospital, of all the cases, was 77 days; but in the uncomplicated cases it was only $22\frac{1}{8}$ days. In many of the cases the residence in the Hospital was prolonged from various accidental circumstances. In the three cases of death the Author said there were in each severe complications: in one there was ulceration of the stomach; in another, Bright's disease; and the third was a drunkard. As these cases were all that had come under his care, it might be supposed, he said, that the disease was rare in Edinburgh. The small number was accounted for by this, that he only took charge of the clinical wards during one-half or one-third of the year. Again, it might be said that the cases were slight and trivial. They were not so; many were very severe. He considered that in cases of pneumonia, as in other inflammation, the cause of death was generally exhaustion. He did not consider that the greater frequency of recoveries was due to change of type in disease, or to any other special cause. He attributed it solely to the advance of Medical science.

Sir Charles Hastings said that his own practice corresponded with that of the Author. If, he said, such results as those obtained by the Author were general, it would be a triumph indeed.

Dr. Routh said that, if the Author's statistics were accurate, it must be admitted that they were unsurpassed in Europe. He would, however, take exception to one or two points. The average age was said to be $31\frac{2}{3}$. Now, it was generally admitted that pneumonia, in a healthy person, or in one not very unhealthy, under the age of 40, would, as a rule, get well. Again, he said, the mortality in females was greater than in males. He wished, therefore, for information as to the proportion of the sexes. He also wished for more precise information as to the amount of lung affected. Many cases in which a small part only of the lung was affected would get well without any treatment, and very often in some cases pneumonia was not suspected.

Dr. Farr thought that the Author had been adopting the right method in analysing his cases so as to show general results. He wished, however, to know if the Author had followed them to their termination, and if he was quite sure that the 102 cases of recovery were absolute recoveries, and that they left no sequelæ likely to end in death. If such results as these were general, it would be a revolution in Medicine. He said that the cases of death from pneumonia were most common in children, and that after adult age the mortality increased one-third for every ten years of age.

Dr. Webster asked if the cases were selected for the clinical wards, or if they were taken as they came?

Dr. Kidd said that his experience of Hospital practice confirmed the Author's views.

Dr. Camps remarked that the results were so remarkable, that if he had not the authority of Dr. Hughes Bennett, he should have thought that the cases were not cases of pneumonia. The older he got, and the more practice he saw, the more he was convinced that it required great heroism to stand by and let Nature do her own work.

Dr. Waters (Liverpool) said that he was connected with an Hospital in which there was a large amount of acute disease, and he had put on record a series of cases of pneumonia. It used, he said, to be an axiom in Medicine, that when a patient was strong and healthy, he could, when attacked by inflammation, bear bleeding. He had frequently under his care cases of acute inflammation occurring suddenly

in strong, healthy sailors. In not one of these cases had he taken away a single drop of blood, and yet they got well rapidly. He considered that the Author's treatment was the right one. He agreed with him also in not advocating a stimulating course of treatment unless the circumstances of the case under treatment called for it.

Dr. Radclyffe Hall asked how many of the patients were from the country, and how many from town?

A Member said that he had treated pneumonia for the last fifteen or twenty years by large doses of belladonna. This plan of treatment he learned from Dr. Graves.

The Author then replied. All the cases were in the public wards of the Infirmary, all were most carefully examined by his clerk, and under his supervision by the students. He also in every one of the cases verified the reports. All the circumstances of age, sex, etc., to which Dr. Routh alluded, were to be found in the records; but he (the Author) could not from memory give any exact reply on these points. There were no children, and many of the patients were old. He would, however, publish a table of all the cases, and give all the details inquired for. He did not wish to compare the results of his treatment with the treatment of the present day, but with that of the past. The cases presented all proportions as to the amount of lung involved. As to the selection of cases, he said that at one time it was usual to select cases for the clinical wards, but now they were admitted in the same way as into the general Hospital wards. There were other cases of death from pneumonia nominally under his care, but they were patients admitted after his visit, and who died during the night, whom, therefore, he had never seen, and who were, in fact, not treated in the Hospital at all. Such cases, he said, brought to Hospitals when moribund, swelled the mortality of all Hospitals. Professor Skoda had been unjustly reproached for inaccuracy because the Pathologist's report gave a larger number of deaths than his statistics. It was readily explained by the circumstance above mentioned. A great deal in the chances of recovery and in the quickness of recovery depended on seeing the patients early. If seen very soon, as in one case which he saw at the very onset, the disease might last only five days. If, however, a case were not seen until the sixth or seventh day, and the patient had not been nourished, then recovery would be prolonged, and the mortality influenced by the state of exhaustion. The Author felt confident that the successful treatment was by nutrients. If the patient had been left to struggle for several days and had taken nothing, his chances were much impaired. Nutrients were the true remedies for the disease. In reply to other queries, he said that he had had no experience as to the use of belladonna in pneumonia. His success in private practice was equal to that in Hospital practice.

Sir Charles Hastings said that many years ago, when he brought forward certain views on inflammation, founded on microscopical research, the great argument against them was, that they did not tally with experience, which had shown that blood-letting was the remedy for inflammation.

Mr. Bowman then read a report on

GLAUCOMATOUS AFFECTIONS AND THEIR TREATMENT BY IRIDECTOMY.

The following is a brief abstract:—The Author first spoke of the great advance in our knowledge of diseases of the eye since the discovery of the ophthalmoscope by Helmholtz. It had, he said, effected a total revolution in ophthalmic practice. A glaring example was to be found in glaucoma. Glaucoma was an old name, but our knowledge of the disease was quite recent. A disease which was once quite hopeless, was now often quickly cured, or its progress checked by iridectomy. Since 1856, when Graefe, who introduced the operation, published his researches, the operation had been frequently performed by Donders, Arlt, and many other Ophthalmic Surgeons. In May, 1851, the Author first performed the operation, and had since tested it on a large scale both at Moorfields and in private practice. In a paper read before the Medico-Chirurgical Society by Mr. Hulke, in 1858, its adoption in glaucoma was urged on the Profession. In the year 1859 the New Sydenham Society published Graefe's papers on Glaucoma and Iridectomy. In August, 1860, he (the Author) wrote a letter in the *Medical Times and Gazette*, in reply to certain objections urged against the operation by the Irish Ophthalmic Surgeons. The progress of truth was, he said, necessarily slow, and many Ophthalmic Surgeons had either not made themselves acquainted with the recent improvements in the treatment of glaucoma by iridectomy, or they rejected the operation altogether. Hence, from hearing many and contrary opinions, Practitioners lose time in applying the remedy until it is too late. The special symptom in glaucoma, which is definite and easily appreciated, and which calls for operative interference, is tension of the globe. In chronic glaucoma there is more difficulty in estimating this, as then the tension is slight and variable, or the tissues have been gradually accommodated to it, yet the optic nerve gradually atrophies from pressure. In cases of acute glaucoma, the operation ought to be performed at once, without any hesitation, as every hour is precious. In these cases puncture has been practised, but the relief is only temporary and relapses occur. No abatement of the symptoms should lead to the abandonment of the operation. Nor should we lose time by applications to the eye or by courses of mercury, or by colchicum, or by attending to supposed disorder of the stomach, or to gout. These remedies really do no good. The Author next dwelt on the various complications of glaucoma by hæmorrhage and by cataract. In case of cataract with glaucoma, he said we ought to perform iridectomy first, and at a second operation remove the cataract. He believed that glaucoma occurred in certain states depending on disorder of the nerves of the blood-vessels of the eye, and that it was not connected with gout or any similar general constitutional condition.

Dr. B. W. Richardson said that he had lately been trying to work out the synthesis of glaucoma, as he had done that of cataract. He asked the Author what was the nature of the fluid increasing the tension of the eye, and from what surface it was secreted. He asked also how the Author explained the physiological action of iridectomy in relieving glaucoma. He (Dr. Richardson) had seen the most extraordinary results from this treatment. He conceived that the Author had under-estimated the condition of the blood. He thought that, just as in diabetes, an increased specific induced certain alterations in the eye, especially in the lens producing cataract; so the tension in glaucoma might be due to a diminution of the specific gravity. If this hypothesis were correct, glaucoma ought to be rare in diabetes. He wished to ask if Mr. Bowman had ever seen glaucoma in a case of diabetes.

Mr. Soelberg Wells said that he could confirm the statements of Mr. Bowman as to the great value of iridectomy. He considered that the want of success was due to improper selection of cases, to wrong diagnosis, and to the too late performance of the operation.

The Author, in reply, said that he came as a Practitioner to speak on practical subjects, and had especially avoided physiological matters. He had once seen a case of chronic glaucoma in a diabetic patient, but the specific gravity of the urine was only 1025. As to the action of iridectomy in relieving glaucoma, he did not wish to speak confidently. It might be the removal of part of the secreting surface of the iris; but it appeared that it was not due so much to the quantity removed as to the exactitude with which it was removed at its attached border. In a case of double glaucoma lately under his care, he had performed iridectomy in one eye, and in the other simply separated the iris from its attachment at one point. The eye, operated on in the latter way, had recently begun to increase again in tension.

A Paper, by Dr. Cutter, was then read on

THE TREATMENT OF MORBUS COXARIUS BY EXTENSION-SPLINTS.

Dr. Cutter briefly mentioned some features in the American methods of extension in morbus Coxarius, embracing splints of cylindrical and hemicylindrical metal attached to the limb by strips of adhesive plaster, and to the perineum by straps of elastic and inelastic bands, or by a band composed of india-rubber tubing. They had the advantage of simplicity, effectiveness, of obviating to a great extent shortening and pain, besides allowing the patient to be peristaltic. At night, extension by pulley and weight connected to the adhesive strips.

ADDRESS IN PHYSIOLOGY.

BY W. SHARPEY, M.D.

Mr. President and Gentlemen,—When I undertook the honourable but anxious task of delivering an address on Physiology to this important assembly of the Medical Profession, I thought it would best suit the occasion were I to pass in review some of the leading features and incidents

which have marked the progress of the science during the time this Association has flourished—a period most eventful in the history of modern physiology.

The last quarter of a century, however, has been so prolific of scientific inquiry, and so fruitful in discovery, that it would be futile in me to attempt anything in the nature of a connected history or systematic exposition of the subject before us. I can only endeavour, out of the wide range of topics which present themselves, to select such as seem best adapted to characterise the scope and aspect of recent physiology, and more especially to illustrate improvements in method, extension of acquired knowledge, and revolutions in doctrine. I could have wished to present a view of these subjects in special relation to Medicine, but this I must leave to a future occasion, and to some more able expositor.

In contemplating the operations of the animal economy, the mind is naturally first drawn to the evidence, everywhere manifest, of purpose and contrivance, of ends to be compassed and means provided for their fulfilment. It is, accordingly, no wonder that ever since the time of Galen's famous treatise "*De Usu Partium*," the uses or functions of the organs of the animal frame should have formed a main subject of study and reflection; and, as you well know, it is a part of physiological study by no means yet exhausted. But intelligent inquirers soon also took up the investigation of the processes of the animal system with a view to their rational explanation. Phenomena were scrutinised, as to the condition of their occurrence, their succession, and mutual dependence; they were referred to the operation of certain general properties and peculiar forces, recognised as belonging to the living body, and efforts were made to find out general laws to which the individual facts might be subordinated.

These labours have been crowned with no small measure of success; and—thanks to the advanced state and happy application of the collateral sciences—many phenomena of a purely physical or chemical nature have been satisfactorily referred to their true causes. If problems yet remain (and there are many such) which have baffled all attempts at physical explanation, it must at least be counted as no small gain that we no longer seek their solution in the agency of imaginary entities, clothed with mystical attributes, like the Archæus of Van Helmont, the Anima of Stahl, and the Vital Principle of later theorists, nor vainly strive to square them to the dogmas of some dominant vito-chemical or dynamical system.

CAUSES OF THE ADVANCE OF PHYSIOLOGY.

During the period which we propose to keep in view, physiology has undoubtedly advanced with accelerated pace; and, among the causes of this advancement, a foremost place must be assigned to the increased number and activity of its cultivators. This is to be ascribed, I believe, in some considerable measure, to the establishment of schools of Practical Physiology in various parts of Europe. Opportunities for the practical pursuit of Anatomy have long been deemed an indispensable requisite for that study. Chemical laboratories, where young men are trained to chemical research, have powerfully contributed to promote the science of Chemistry. To these are now added, in various schools on the Continent, and especially in Germany and Holland, physiological laboratories, in which opportunities are offered for the practical study of structural anatomy, physiological chemistry, and experimental physiology. In these establishments, encouragement is given and facilities afforded for original research; and all the requisite arrangements, with the best instrumental appliances, are provided for that purpose. Accordingly, many valuable physiological memoirs have emanated from the practical schools of Berlin, Dorpat, Würzburg, Utrecht, and elsewhere; and accomplished young professors and assistants have been supplied to the various German Universities, there to carry on their independent researches.

The practical schools of chemistry in this country have taken an honourable place in the advancement of their science. Physiology, it is true, holds out no material rewards to her votaries; let us hope, nevertheless, that there will not be wanting young and ardent aspirants, in adequate numbers, who, through their devotion to science and desire of honourable distinction, may place modern British physiology in the same worthy position.

Much may reasonably be expected from the position which physiology has now taken as a branch of general education. For more than twenty years animal physiology has, to a certain extent, entered into the examinations for degrees in Arts at the University of London, and is now carried to a much higher pitch in the Science degree, recently instituted by that body, and already showing promise of great good. The older Universities have followed in the same line; and in Oxford, a Chair of Physiology has been liberally endowed, and all requisite advantages afforded for study, both general and practical; and we may confidently anticipate that, under the guidance of the accomplished and energetic Professor, who has already begun his labours, the ingenuous youth who resort to that great seat of learning, untrammelled by the calls of Professional study, will powerfully aid in the advancement of the science.

The elementary truths of physiology are now also becoming a subject of instruction in ordinary schools; and in the general spread of the knowledge of the living economy, good seed may here and there fall on fertile ground, and yield a return in kind. The more general diffusion of this species of knowledge, moreover, although not intended to instruct mankind in the cure of disease, may teach them to shun its avoidable causes; above all, such knowledge is well calculated—as we know it is sorely needed—to save men, even of high intellectual and social position, from becoming the victims of illusion, or the dupes of imposture.

EXPERIMENTS ON LIVING ANIMALS.

As I have spoken in commendation of experiment, I cannot avoid digressing for a moment to say a few words on the indignant but misdirected declamation in which many well-meaning persons permit themselves to indulge against experiments on animals, which they indiscriminately denounce under the opprobious name of "vivisections." This is a matter which not only touches the character for humanity of physiologists, but concerns our common Profession. It is a subject on which I have reflected much in the course of my life, soberly, I trust, and impartially, apart from Professional predilection, and with due regard to extra-Professional sentiment; and I trust this will not be deemed an unfitting occasion for expressing an opinion.

Experiments on brute animals have been stigmatised as cruel, barbarous, and inhuman in themselves, and calculated to blunt the feelings and roughen the nature of those who engage in or witness them. Cruelty, I may remark, is defined by our greatest authority on the meaning of words to be "delight in the pain or misery of others," also, "an act of intentional affliction." But let us not take shelter under a definition. Let us affirm unreservedly that the sacrifice of animal life, or the infliction of pain, unless with a view to some commensurately useful result, is utterly indefensible.

Tried by this test, I believe the great majority of experimenters will be pronounced free from just censure. Attention has, it is true, been lately directed to proceedings carried on in some foreign veterinary schools, where the pupils in order to learn operative dexterity, are allowed and encouraged to practise severe operations on living animals. Seeing that every useful end may be attained by operating on the dead body, the practice in question has excited the just indignation, not only of the world at large, but of the Medical Profession, and has been fittingly reprobated by the organs of Medical opinion. Experimental physiology has, happily, not to answer for these revolting proceedings, though it may suffer through the indiscriminate odium they are calculated to stir up.

As to physiological experiments, strictly so called, I may remind you that a large proportion of them are attended with the immediate death of the animal, and, therefore, involve only momentary pain; or are performed when the subjects have been rendered insensible by anæsthetic agents. These, then, are cases involving at the most only the sacrifice of animal life; and, when we consider the countless myriads of the brute creation that are daily slaughtered for man's sustenance, or are left to perish from hunger or the severity of the season, or fall a prey to their natural enemies, to say nothing of the multitudes killed for sport, surely it is not too much to claim that an infinitesimal share of this vast sacrifice may be applied towards the extension of human knowledge and the alleviation of human suffering. Experiments, no doubt, still remain, in which the infliction of pain, more or less protracted, cannot be avoided. In such cases, the adequacy of the end in view, and the reasonable probability of its attainment, must constitute the justification. And let it be considered that by such means most of the fundamental truths of physiology have been established, including the doctrine of the circulation itself; the practicability of important Surgical procedures has been tested; the action

of poisons on the animal body demonstrated; remedies have been discovered; and innumerable results obtained, needless to specify before this audience, which have tended to the recognition of scientific truth or the promotion of the material good of mankind.

But I doubt not you will agree with me in thinking that, when a result has been thoroughly established by repeated trials and on competent authority, it is, at least as a general rule, scarcely warrantable to repeat a series of severe experiments solely to prove the matter again for our individual satisfaction; and, doubtless, you will also agree that discretion is especially required in the exhibition of painful experiments for the sake merely of instruction. In this country, indeed, the exhibition of experiments in lectures is not carried to any considerable extent. Moreover, they may, for the most part, be performed on animals deprived of sensibility. As to other cases, there are occasions when I venture to think their exhibition is justifiable and proper; as, for instance, when they serve to impress vividly on the mind some great fundamental truth in the science, or when the purpose is to impart to the learner a species of knowledge which is important for the safe practice of his Profession, but which he cannot readily acquire in any other way; as, for example, the symptoms and effects produced by various poisons, ignorance of which might lead to fatal errors in practice, or to the miscarriage of justice, and that too when innocent life may be at stake.

Lastly, your own experience, and your intercourse with men who have largely engaged in such experimental investigations, must convince you that there is no real foundation for their alleged evil influence on those who practise them. I need not multiply examples in support of this averment. Haller, who set a high value on experiments on animals, and often had recourse to them, was not only an illustrious physiologist, but a man of refined taste, highly accomplished in polite literature, and assuredly of no ungentle nature; and, if our social censors demand a living proof that the discreet and judicious employment of experiments on animals is not incompatible with kindness of heart and elevation of sentiment, with a scholarly taste for letters, and with serene and fruitful meditation in philosophy, I need but mention the venerated name of Sir Benjamin Brodie, who, before he became engrossed with the duties of his great professional career, had earned the highest distinction as an experimental physiologist.

In proceeding now to speak of improved methods and appliances in physiological investigation, I will first refer to the extension of our

MEANS FOR THE ACTUAL INSPECTION OF PHENOMENA.

If, under this head, I mention the microscope, I shall doubtless be told that it is of ancient use in physiology; but its powers have been enhanced and its use extended. I might also tell that, five-and-twenty years ago, I was one among the very few Medical teachers in this country who exhibited objects to students with the microscope. Indeed, at that time we had to meet and answer objections to its employment; whereas now it has become almost a household instrument. I remember, too, the time when we had to work laboriously with the simple lens, by reason of the defects of the compound microscope; but, thanks to the improvements in achromatic objectives, for which we are especially indebted to the suggestive skill of Mr. Joseph Jackson Lister, the compound instrument is now available for every purpose, and, in the hands of British and foreign makers, goes on improving both in its principal parts and accessories. And here I must not omit to acknowledge the influence of the Microscopical Society, which, by bringing together men of various pursuits for the common purpose of promoting microscopical research and encouraging improvements in the instrument, as well as by spreading the knowledge of microscopical science by their publications, has contributed in no slight degree to further the advance of physiology.

In the ophthalmoscope we have now a means of inspecting the interior of the eyeball; and although it has as yet been employed almost exclusively for the investigation of disease, nevertheless, as it brings under our scrutiny the internal surface of the eye and the condition of the transparent humours, so as to expose the cause of various entoptie phenomena and other affections of vision, it cannot fail to extend our knowledge of the physiology of the organ.

The condition of the glottis during the production of the voice, and in various states of respiration, as well as the changes of the vocal cords in the intonation of the different notes, has long been a subject of interesting inquiry to physicists and physiologists. But heretofore our knowledge has been mainly inferential, from the known structure of the vocal organ, from the results of experiments with the dead larynx, and the observation of the few changes perceptible externally, considered in relation to the laws of acoustics. Accordingly, very different views have been held, and various interpretations given of the matters in question. Now, however, a simple apparatus has been devised for bringing the glottis and its movements under the cognisance of our eyesight. In 1855, Mr. Manuel Garcia described, and caused to be exhibited to the Royal Society, a small reflecting speculum, by which he was enabled to inspect the glottis; and, at the same time, gave the results he had obtained with it in reference to the mechanism of the voice. Garcia, however, was unable to bring the whole extent of the glottis into view; but more lately, the method may almost be said to have been brought to perfection in the laryngoscope of Professor Czermak. By means of this instrument, the whole glottis and the adjacent parts are clearly seen; its condition during voealisation and the changes of the cords in the production of the different chest and falsetto notes become patent to the eye; and the ingenious contriver has actually succeeded in producing photographs, nay, even stereoscopic views of the phenomena. It is needless to enlarge on the physiological value of this visual test applied to the various speculations on the voice. I notice it here as as a conspicuous example of an unseen process in the human body, which has remained hidden through all bygone time, being in our own day brought fairly into light.

Although not strictly coming under this head, yet, as a means of exploring deep-seated phenomena, I may notiee the thermo-electric multiplier, by which Becquerel, transfixing a muscle with a needle composed of two metals and conneeted with the multiplier, ascertained that the temperature rises during contraction. This apparatus, as well as the highly sensitive galvanic multiplier of Du Bois Reymond, may also be cited as a means of amplifying the indications of minute changes.

APPLICATION OF NUMERICAL STATEMENT TO PHYSIOLOGY.

But one of the most important steps that have been made in modern physiology is, in my judgment, the general recognition of the importance of exact numerical determination, whether as to time, space, or quantity, and its general application to those phenomena of the animal body which are susceptible of it.

A pre-eminent authority, Sir John Herschel, speaking of the advantage of numerical precision, declares that it is the very soul of science; and that its attainment affords the only criterion, or at least the best, of the truth of theories and the correctness of experiments. I may remind you that the introduction of quantitative determinations, in the time of Lavoisier, brought about a complete revolution in chemistry. It led directly to the recognition of definite combining proportions —the basis of the atomic theory—and brought in the system of chemical notation, which has entirely changed the face of the science. Moreover, the advantage gained consisted not only in the direct discovery of truth, but in the dissipation of error. The spurious, but fascinating, theory of phlogiston, which had so long held absolute sway in chemical doctrine, could not withstand the inexorable logic of the balance.

There was an earlier time, indeed, when numbers and geometrical representations were largely dealt with in physiology; but they rested on no experimental data, and could only lead to error and confusion. I allude to the time when men's minds were so vividly impressed with the successful application of mathematics to the phenomena of the material universe by Newton, that they were tempted, from a loose analogy, to apply geometry and the calculus where they had no legitimate place. So far, indeed, did the prevailing enthusiasm extend, that even theology did not escape its influence; and a divine of the Church, who had earned some distinction in the history of infinitesimals, actually published a theological system under the strange title of "*Religionis Christianæ Principia Mathematica.*"

But while the mathematical Physicians reckoned without solid empirical data, physiological inquirers of the present day seek first to obtain such data, from which they may reckon.

Numerical statement has, of course, long been usual in the chemistry of the animal body; but I wish here to refer to the application of exact measurement to the physical phenomena

concerned in physiological processes; and, as a principal example, I will select the circulation of the blood.

The first, though but solitary, steps in this path of inquiry were undoubtedly made, long back in the last century, by Dr. Stephen Hales, who, though a reverend clergyman of the Church, and continually occupied with useful projects for the public good, did not scruple to engage in experiments on living animals. Dr. Hales measured the pressure of the blood in the vessels, and recognised its fluctuations, caused by the impulse of the heart and the movements of the chest. His procedure consisted in introducing a tall glass tube into a blood-vessel, and measuring the height to which the blood rose in the tube in consequence of the pressure to which it was subjected within the vessel. About thirty years ago, M. Poiseuille, a distinguished French physicist, who, after a long interval, took up the inquiry, substituted a short bent tube containing mercury for the long unmanageable column of blood; imitating, in this respect, the greater example of Torricelli, when he substituted mercury for water to measure the pressure of the atmosphere. Poiseuille's instrument, which he named the hæmadynamometer, has been of late further improved, and a contrivance has been added by which the oscillations of the mercury are inscribed in form of an undulating curve on a cylinder made to revolve by clockwork; the height of the undulations of the curve denoting the *pressure*, and their horizontal amplitude the *time*. The revolving cylinder, I may observe, is employed for recording other measurements, as, for instance, the extent and velocity of the contractions of muscle.

By this method the mean pressure of the blood in the arteries is ascertained in various species of animals, and its fluctuations caused by respiration and the heart's impulse recorded, in comparable diagrams; also the rate of decrease in the smaller vessels, and the relation of the pressure in the veins to that in the arteries. It is thus shown that the heart is adequate to propel the blood through its entire circuit, without the aid of capillary forces, vital attractions and repulsions, and various fancied agencies which have got credit for auxiliary service now shown to be not required.

The velocity of the blood, too, has been determined. Hales measured its rate in the capillaries of the frog, and the exactness of his measurement has been confirmed in our own day. The rate has been since obtained for the capillaries of warm-blooded animals. More lately, the vastly greater velocity in the large arteries has been ascertained and approximately measured by means of instruments contrived by Volckmann and Vierordt. Lastly, the time of an entire circulation, or, at least, the time taken by a given portion of blood to perform its entire circuit, has been determined by a well-devised experiment of Hering, and found to be certainly not more than half a minute. This result, startling at first by reason of the unexpected shortness of the time, has been amply confirmed by subsequent experimenters.

The extreme swiftness of the blood thus demonstrated is, after all, in harmony with the known rapidity of secretion, absorption, and other phenomena depending on the circulation. Indeed, in reasoning on the animal economy, whether in health or disease, we cannot too constantly bear in mind the extreme rapidity of many of these vital processes. Had this consideration been kept in view, there would have been no need for imagining the existence of hidden passages, *viæ clandestinæ*, to account for the sudden conveyance of substances from the stomach to the kidney; or for resorting to erroneous interpretations of the marvellously sudden action of certain poisons. The same consideration enables us to conceive the redintegration of energy in rhythmically acting muscles, by nutrition in the intervals of rest, which, as pointed out by Mr. Paget, is, doubtless, a main condition of the rhythmic motion of the heart, diaphragm, and other muscles acting in like manner. I may add that the entire quantity of the blood in the body, which used to be reckoned at about twenty-eight pounds in an average man, is now ascertained to be not much above half that amount.

Exact determinations of corresponding kind have been introduced into the physiology of nerves and muscles. The extent, velocity and force of muscular contraction, under different determinate degrees of stimulus, under the influence of poisonous agents, and of various other conditions, have now been submitted to accurate measurement and record. But perhaps the greatest triumph of precise instrumental determination applied to the phenomena of life, is the measurement of the velocity with which the excitement by a stimulus is transmitted along a nerve. This has actually been accomplished through the sagacity and ingenuity of Professor Helmholtz; and the result is, that, compared with analogous phenomena in the external world, nervous excitement travels very slowly. So far from being comparable in this respect to light or electricity, it is much inferior even to sound. In the muscular nerves of frogs, Helmholtz found the average rate to be between eighty and ninety feet in a second; and, what is of great interest, he found that it was retarded by cold. The rate of speed in warm-blooded animals is but very imperfectly determined, but it would appear to be probably more than twice as great as in the frog.

To these examples others might be added, did time and my estimate of your patience permit; such as the comparison, by means of measurement, of the sensibility of different parts of the cutaneous surface, and its variations from exercise of its function, disease, and other circumstances; also the determination of the extent and force of respiration, and other physiological quantities or constants; but enough has been adduced to illustrate the spirit of exactness which now animates physiology.

PROGRESS OF PHYSIOLOGICAL CHEMISTRY.

Proceeding now to touch on the acquisitions of material knowledge and the changes in scientific doctrine which mark the progress of physiology, and beginning with physiological chemistry, I need scarcely remark, that the spirit of research in that department has been so busy, and the results obtained so vast and so varied, that, compared with its importance, my reference to the subject must be but slight and partial.

I may remind you, in the first place, of the knowledge gained concerning the proximate principles of the food; the recognition, in plants, of albuminoid compounds, in virtue of which vegetable nourishment sustains animal life; the light thrown on the changes which nutrient matters undergo in the alimentary canal, fitting them for absorption and reception into the blood; and on the operation of the salivary, gastric, and pancreatic fluids in producing these changes, as well as the discovery of the peculiar constituents of those fluids on which their efficacy depend.

Doubtless, also, all are well aware of the broad and luminous views emanating from Liebig and his school, as to the use, immediate destination, and ultimate disposal of the several constituents of the aliment in repairing the consumption of the tissues, and maintaining the heat of the body; and the final indentification, qualitative and quantitative, by Schmidt, Boussingault, Barral, Bischoff, and others, of the constituent elements of the nutritive principles, as discharged by the lungs, kidneys, and skin.

It is now also shown how these exuvial materials, after being delivered over to the earth and the atmosphere, in the shape of water, carbonic acid, and ammoniacal urinary products, become available as the food of plants, by which they are again combined into proximate principles, and serve anew for the sustenance of the animal kingdom. And in this admirable cycle of interchange and reciprocal compensation between the three kingdoms of nature, we are permitted to see another example of that tendency to the maintenance of order and stability so conspicuous in the phenomena of the universe.

But although the chemist thus presents us, as it were, with an accurate balance-sheet, showing the food taken into the system and the final products given out, and has shown that the supply can be identified and accounted for in the expenditure, we are still but imperfectly informed of the intermediate changes which the nutrient matters undergo, in the blood and in the tissues, before they are brought to their excreted condition. Among the actual data which afford a basis for this inquiry, and may eventually help to the solution of the question, I would refer to the several compounds which have been obtained from muscle, and which are probably immediate products of the metamorphosis of that tissue; but especially to the brilliant discovery by Bernard of the production in the animal economy of a substance analogous to starch. This amyloid substance, glycogen, shown by Bernard to be largely generated in the liver, and, according to subsequent experimenters, also in the muscles and other tissues, is supposed to be converted into sugar and finally oxidised; although Dr. Pavy, led by his very ingenious and laborious researches, has thrown doubts on its actual conversion into sugar during life. However this may be, it is plain that in the production of glycogen we see the actual formation of a hydrocarbonous

product in the animal body; and as its production goes on when hydrocarbonous food, and indeed every kind of food is withheld, it probably represents one of the transitional conditions through which hydrocarbonous matter, whether proceeding directly from the food or derived from the metamorphosis of albuminoid tissues, passes, before final oxidation.

As bearing on these larger questions, I would also refer to the advances made in the chemical examination of the tissues and fluids, and especially of the blood; to the recent views respecting the condition of the inspired oxygen of the blood, and the experiments of Harley and Meyer, showing, in opposition to Magnus, that the oxygen is not merely retained in the fluid by physical absorption, but held by chemical affinity; also to the recognition of ammonia in the blood, and the well known discovery by our distinguished associate, Dr. Richardson, of its efficacy in maintaining fluidity.

It is worthy of note that in the course of such inquiries, particular facts are sometimes elicited, which afford hints of fresh discovery and suggest important practical applications. The unlooked-for contrast between the saline constituents of the blood-plasma and corpuscles,—the one containing chiefly soda, the other potash,—and the predominance of potash in muscle, taken in connexion with the well-known impairment of muscular strength and impoverishment of the blood in scurvy, led Dr. Garrod to suspect that the disease might be connected with deficiency of potash in the system. And on further reflecting that the most approved antiscorbutic remedies and aliments contain much potash, he was led to try that substance as an antidote, and so far as his experience goes, he has found it a promising one.

Instances like this should teach us not to disregard apparently slight differences, provided they are constant. I remember the time when potash and soda passed practically as equivalent; we have now reason to think that they perform very different service in the living economy. As another illustration of the point now urged, I may mention the difference observed by Dr. Edward Smith in the effects of rum and brandy, even in small quantities, on the respiration; the one always increasing the exhaled carbonic acid, the other as invariably diminishing it. And here again we are reminded that differences in various liquors or in the same liquor according to its age, although in no way cognisable by chemical analysis, cause very different effects upon the human system.

Let no one imagine that I mean to put in a word for Homœopathy. I have no faith in the dogma of *similia similibus;* nor in decillionth dilutions and dynamising processes. I wish only to urge that it is both unphilosophical and unpractical to disregard minute quantities and faintly marked differences, provided always their observed effects are constant. We are familiar with the influence of odours upon the nervous system—intense in their effects, but in substance eluding the subtlest chemistry. And I may borrow an illustration of the same point from physical science. The volatile matter in a Torricellian vacuum must be, to the last degree, attenuated, and yet it counts for much in certain phenomena. It conveys the luminous electric discharge in all its brilliancy and beauty; while, as discovered by M. Gassiot, a more perfect void, like a gulf, stops the transmission altogether. Again, it is known that obscure radiant heat is partially absorbed in passing through gases and vapours, but in very different degrees; and Professor Tyndall shows that the absorption of terrestrial rays by the vaporous odour of a flower bed may exceed in amount that of the entire oxygen and nitrogen in the column of the atmosphere incumbent on the same area.

But it remains for me yet to notice one of the most important conclusions which the recent chemistry of nutrition tends to establish.

In an artificial machine the moving force must be supplied from without. The apparatus cannot generate force by its own intrinsic mechanism; otherwise there would be realised the principle of a perpetual motion. The spring which moves a watch must first be wound up; and it merely gives out by slow distribution the force that has been imparted to it quickly. Again, the heat which moves a steam-engine is obtained by the combustion of coal; and the sum of the heat evolved and mechanical force generated exactly corresponds with the amount of fuel consumed. Now, the belief at one time prevailed that the natural machine of the animal body was exempt from these conditions, and was endowed with the faculty of generating force intrinsically, and independently of outward agencies. A connection between the taking-in of food and the development of force was not recognised; the nourishment seemed to be destined only to grease, as it were, the wheel-work of the machine; to replace what was used up, and renew what had grown old. The teaching of modern physiology is different. In the albuminous and hydrocarbonous food, in the inspiration of oxygen, in the wear and repair of the tissues, and in the discharge of altered and residuary matters—we see materials and processes for the evolution of heat, and for the production of the energy manifested in muscular and nervous action.

The conditions are too complex, and the data of a precise and trustworthy character are, as yet, too scanty, to permit the demonstration of an exact equivalence between the heat and work produced in living bodies, and the chemical forces which are set in action. But there is still an obvious parallelism—a certain correspondence in the variations of these two quantities—which presses on us the conviction of their mutual dependence.

But while the heat evolved in the living body can, to within a small fraction, be accounted for by known chemical actions, and the development of muscular force is measurable and is shown to be accompanied by chemical changes—chiefly oxidation of the muscular substance—with which it may be compared in amount, it must be observed, in regard to the nervous energy, that, although we have indications to show that its manifestation involves consumption of nervous matter, and the one is probably proportionate to the other, yet, as we have no means of measuring the intensity of sensation and volition, not to speak of other energies of the nervous system, we cannot profess to establish their quantitative relation.

PHYSIOLOGY OF THE NERVOUS SYSTEM.

Nowhere has the spirit of modern research been more active or more fruitful than in the physiology of the nervous system; but as this was made the subject of an elaborate address delivered before the Association three years ago, I shall confine myself to one or two later accessions in this department.

I must, however, first notice the important method of research introduced some years since by Dr. Augustus Waller, for tracing the distribution and determining the functions of nerves. This method consists in taking advantage of the disorganisation of the peripheral part of a nerve which follows on its section, in order to identify its fibres, by their altered state, when associated or entangled with nerve-fibres derived from other sources; also by stimulating a nervous trunk after the fibres of one or more of its tributaries have been thus rendered ineffective, to ascertain what share of the common function belongs to each.

On all sides, inquiry has been carried on into the electricity of nerves and muscles; but, out of so vast and valuable material, I would merely point out as especially worthy of attention, the investigations of Pfluger into the laws of the electric excitement of nerves, as well as the discussions to which they have given rise.

Although every part of nervous physiology possesses intense interest, I confess at this moment I feel most deeply impressed by the knowledge recently gained respecting the influence of the nervous system on the organic or nutritive functions. Many long years did physiologists search for positive experimental evidence of the influence of nerves on blood-vessels. It has now flowed in abundantly; and I cannot help ascribing some considerable share of the success of recent inquiries to the employment of the electric induction coil and intermitting current, as a much more effectual mode of electrically stimulating nerves than the means previously in use.

The influence of the nervous system on secretion has been long acknowledged. The sudden flow or arrest of various secretions through mental states, afforded ample evidence of the general fact. Lately, however, it has been shown by Ludwig, Bernard, and others, that the secretion of glands, and more especially of the salivary and lachrymal glands, may be increased by artificial stimulation of their nerves, both direct and reflex. Bernard has also observed the remarkable fact, that whilst the gland is in activity and secretion going on, the flow of blood through its vessels is greatly increased, and the passing blood, thus increased in quantity, does not acquire its usual dark colour in the veins. The interesting result, too, has come out, that while stimulation of certain cerebro-spinal nerves proceeding to the salivary glands augments the secretion, similar excitement of the sympathetic

branches checks its flow, and also greatly reduces the current of the blood.

It is thus plain that the nerves operate on the blood-vessels; the cerebro-spinal causing dilatation—acting probably as the vagus under similar excitement affects the heart,—whilst the sympathetic has the opposite effect. Nevertheless, there are other phenomena brought out in these experiments going a far way to show that in promoting secretion the stimulated nerve does not act merely in an indirect manner, through the change caused in the vessels; and there are not insignificant grounds for supposing that the nervous excitement may operate directly on the elements of the gland, and bring about physical and chemical changes in the contents of the gland-cells.

There is also independent evidence of a more conclusive character to prove that cells, or rather their contents, may be directly influenced through the nerves. The pigment-cells of the skin of the frog change their appearance under the influence of nerves; and this phenomenon has been shown by Professor Lister to consist, not in a contraction and dilatation of the cell-wall, as was supposed by the German physiologists, but in a movement of the minute pigmentary molecules with which these ramified cells are filled; and this movement may be brought about by stimulating the nerves both directly and in a reflex manner. That chemical changes in cells may be influenced through the nerves, is shown in a striking manner by Kölliker's experiments on the luminiferous organ of the firefly. Facts such as these appear to me especially worthy of regard, as the phenomena they present, being comparatively simple and open to observation, are well calculated to afford an insight into the agency of the nervous system in more recondite nutritive processes.

I am led by these considerations to remark on the great advantage that has accrued, and is likely further to accrue, from an extended acquaintance with the structure and economy of creatures of essentially simple organisation. It is in these humblest representatives of the living organism that we may hope to find physiological problems presented in their greatest simplicity, and most thoroughly disentangled from unessential complications. Many ingenious but futile theories of muscular motion would never have seen the light, had the vitally contractile substance and its affections been studied in the protozoa.

PHYSIOLOGY OF REPRODUCTION.

In the physiology of reproduction, the old question of spontaneous generation has been lately revived and submitted to fresh discussion; but, as I think, has been satisfactorily answered in the negative, and especially through the admirable investigations of M. Pasteur. That most able and accomplished inquirer has not only proved the non-appearance of infusorial organisms when adequate means are taken to exclude their germs, but has succeeded in actually demonstrating the presence of such germinal spores in the atmosphere. Air was made to pass through a tube filled with gun-cotton taken from a sample proved to be free from foreign admixture. The cotton was then dissolved in ether or chloroform; and sporules of algæ and other simple organisms, which had been entangled and arrested in their passage, were found in the liquid. It cannot but occur to us that this simple and to all appearance efficacious method might be advantageously employed to explore miasmatic and infected atmospheres. M. Pasteur was led on by these inquiries to a careful study of the phenomena of fermentation; and he has not only added largely to our knowledge of the chemical changes and products presenting themselves in that remarkable process, but has thrown much light on the operation of the living organisms on whose presence and influence it appears to depend.

But while origin from parents and reproduction of their like still remain as great characters of living beings, it has been discovered that, in some of the lower grades of the animal kingdom, the offspring, before reaching the condition of the parent, passes through a series of strange vicissitudes, not merely representing the changes of form, structure, and habits observed in the well-known transitions of an ordinary larva, but involving the production of a new brood or of new broods by the still unfinished being, differing from it in form and structure, but finally assuming the characters of the original parent. Various insulated cases of this phenomenon, delusive as they sometimes were to systematising naturalists, had previously been noticed in different quarters; but the first connected view of the subject was given by the Danish naturalist, Steenstrup, in a work which has been translated and published by the Ray Society.

The process now referred to has been named "alternate generation," or metagenesis. It possesses a special claim on the interest of the Medical Profession, inasmuch as some most interesting examples of it occur among the entozoa. It is now known, for instance, that the cysticercus is but a certain state or stage of the tapeworm; and here I must refer to the interesting researches of Mr. George Rainey on this subject published in the *Philosophical Transactions*. I have time, however, only to explain that, while the stages of transition from the cysticercus to the tænia had been satisfactorily traced, Mr. Rainey discovered that the tænia-embryo, in its conversion into the cysticercus, passed through a curious phase which had not been till then observed.

I pass over the renewed investigations on the generation of the aphides, which has been a curious subject of speculation since the days of Bonnet and Reaumur, in order that I may dwell a moment on the startling discovery that animals with sexual organisation, and holding no mean place in the scale of being, may produce young from eggs that have never been fertilised by the male. I doubt not you have heard of the remarkable observations of Dzierzon and Von Siebold, which prove that the eggs of the queen-bee produce drones without being impregnated, and that the impregnated eggs invariably produce neuters. No explanation has been attempted of this singular result, except in reference to its final purpose in the economy of the hive; and it becomes all the more perplexing when compared with the case of certain moths, in which parthenogenesis has also been discovered; for, in some of these, unimpregnated eggs give rise exclusively to female offspring, whilst in the silkworm both male and female young may issue from eggs without impregnation.

With regard to the actual process of impregnation, it is now satisfactorily proved that the male element passes into the interior of the ovum. Spermatozoa—improperly so called—have now been traced within the ovum in many different animals, mammalia not excepted; and there can be no doubt that this is the general condition of sexual fecundation.

The study of embryonic development, which had engaged the interest of the great Greek naturalist, and was prosecuted with more or less success after the revival of science down to the epoch of Caspar Frederick Wolff in the last century, received a fresh impulse from the admirable researches of Pander on the evolution of the chick, now more than forty years ago. Pander, in fact, discovered a fundamental principle which regulates the early stages of the process, and which became, as it were, a compass to guide succeeding explorers in this interesting but difficult field. Investigation has now been pushed so far, that I believe I am right in saying that the development of the embryo has been studied, more or less fully, in examples representing all the great, and many of the subordinate, divisions of the animal kingdom.

You are aware that the study of embryogeny, besides serving to elucidate the genetic economy in the particular animal type to which each example belongs, has a twofold general application,—namely, first, to the establishment of the general laws of formation of the animal body, and the relations as to homology of its several parts: and, secondly, to the investigation of the development and essential relations of its constituent textures; in short, to morphology and to histology.

The doctrine of homology, which took its rise through the genius of Goethe, and which has since been so ably and successfully prosecuted, by comparison of the mature animal structure, by Geoffroy and Meckel, and especially by Owen, was placed on the securer, but yet not exclusive basis of embryology, through the sagacity and industry of Rathke and Von Baer. The surpassing beauty and interest of the teachings of homology are seen especially in its relations to comparative anatomy and zoology, and, therefore, I should not make further reference to it here, even did I feel myself more competent to the task.

RECENT ADVANCES IN HISTOLOGY.

For the first quarter of the present century, and more, the study of the animal tissues and of the intimate structure of the viscera scarcely moved beyond the point at which it was left by Bichat. Its signal advance since that time has, I need scarcely say, been mainly owing to the extended use of the microscope and the improvements in that instrument, as well as the skilful employment of suitable reagents for bringing out the microscopic characters of the objects, and in the

improvement of these last-mentioned resources, there is no name more deserving of honourable mention than that of our able and zealous associate, Professor Beale. But in following the history of modern inquiry, it is pleasing, from time to time, to meet with examples evincing correct and careful work by Leeuwenhoek, Malpighi, our ingenious countryman, Hooke, and other early labourers in this field; instances, indeed, of true but neglected observations of that early time verified in our own day; like living seeds long dormant in the ground, which are turned up by the furrow of a later cultivation.

But, to return to the development and nutrition of the tissues:

The grand feature of progress in this direction is the application to the animal tissues of the principle of cell-agency and cell-metamorphosis, which had already been recognised in the vegetable kingdom.

The cell-theory of animal growth and development, on its promulgation by Schwann, in 1839, was received and adopted with eagerness, amounting almost to enthusiasm. Men fancied that in the "power of the cell" they had found a key to unlock the secrets of life. Each cell had, as it were, its ministering genius, working out an assigned task in the living economy. There was, in truth, a return to the Helmontian doctrine of the archeus; but instead of a single autocratic ruler over the whole system, it was the conception of a confederation of archeoli, each dominating in its own cell, and all acting in concert towards a purpose, like bees in a hive. But although the fact of the several existence and joint operation of cells was true, it was seen on a more sober view, that to ascribe this to an all-efficient cell-power amounted to no real explanation.

After making all reasonable abatement, however, the cell-theory, modified as it has been, and still undergoing modification, remains one of the most fertile ideas in modern physiology.

Among the simplest modes of animal and vegetable existence, we have examples of a body with the characters of a cell constituting a complete organism; assuming nourishment, undergoing growth, and reproducing its like,—exercising, in short, the functions of an independent living being. The offspring of the higher animals first appears as a cell, and the embryo for a time consists of an aggregation of cells. Throughout after-life, also, certain textures retain their cellular structure. Cells are employed in separating matters from the blood to be discharged in secretion, and may become the seat of chemical and plastic processes, or even of higher operations, as in the nervous system.

It was, however, soon perceived that various kinds of tissue were produced without the immediate intervention of cells, by molecular changes taking place in an amorphous intercellular substance. But even in this case it is held by many that this substance is first converted from raw material into an organisable blastema by the agency of the neighbouring cells.

Again, the efficacy of cells has been very variously estimated in the nutrition of the mature organs and textures. On the one hand, it is maintained that the organised fabric is kept up, like the population of a city, by the continual formation of new structural elements, to take the place of the old; and this is undoubtedly true of epidermis and some allied structures; on the other hand, it is contended, with much reason, that, with the exceptions alluded to, renewal may take place, particle by particle, the new matter replacing the old by what may be called molecular substitution. But even among those who adopt this last hypothesis it is with some a favourite opinion, that the bodies like cell-nuclei, which are persistent in most of the mature tissues, if they do not generate new form elements, at least select the appropriate materials from the interstitial fluid, and fit them for taking part in the organic structure.

But it has been urged, and justly, that the so-called "cells" are not always and necessarily vesicular in structure; that the envelope, or cell-wall, is not an essential part, and that the nucleus, and more or less of the matter surrounding it, really constitute the organically active element. In this view, therefore, the envelope, when present, is merely an insulating and containing part, which might be compared to the flask which holds the active ingredients in a chemical process. Still it is a permeable shell, which permits of the entrance and issue of matter; and it stands in intimate relation to the intercellular substances. There may or may not be a distinct vesicular envelope, but in either case the nucleus and cell contents remain insulated in and contrasted in properties with the intercellular substance. To express this relation, Mr. Huxley accordingly proposes to call the former the "edoplast," and to distinguish the surrounding substance with the envelope if present, as the "periplast."

Lastly, a wide difference of opinion prevails as to the origin of cells. Some physiologists and phytologists hold that cells are invariably and exclusively derived from other cells; that all the cells of an organism are descended by successive generations from the cell of the ovum originally proceeding from the parent. It is as strenuously maintained by others that nuclei and cells may arise independently in an organisable blastema, nay, that they may be produced in fluid organic matter by a merely physical process.

Neither confident assertion of opinion nor ample allegation of fact is wanting on either side of this and the other questions referred to. Observations, conflicting with each other, spring up indeed on all sides, in rank growth, but the time is not come for separating the tares from the wheat.

THE FORCES OF THE LIVING ORGANISM.

And now, Gentlemen, in drawing to a close, I may be expected to say a word on the prevailing views as to the powers which animate the living organism.

I have already remarked that many of the processes of the living economy issue in physical or chemical results, and I have stated that the more or less close relation subsisting between these results, so far as they can be estimated, and the consumption and oxidation of nutriment, as indicated in respiration and excretion, would seem to show that the chemical and mechanical forces developed are derived from an extrinsic source; but, at the same time, that there are energies displayed in the living body not yet estimated in amount, concerning which, therefore, there is not the same clear evidence. I refer especially to the nervous energy.

In speaking, however, of the nerve-force, I understand that force which is common to all creatures possessing a nervous system, from the highest to the lowest. I do not refer to the highest attributes of man, to his sense of moral responsibility, his consciousness of dependence on a higher power, and his aspirations after perfection in a future state.

This nervous force has long been likened to electricity; but rather through a vague perception of analogy than from any rigorous comparison. It is true that electric force is developed in the nerves, and even exhibits modifications connected with different conditions of nervous action. Still, it must be borne in mind that the evolution of electricity is a common accompaniment of various processes involving chemical change, whether within the body or in external nature; and the tendency of recent speculation is not towards identification of the nerve force with electricity, but rather to suggest that the two stand related in the same way as electricity and other physical forces are related to each other; that is, as manifestations of a common force or energy, of which they, severally, are the special modifications.

Since the memorable experiments of Count Rumford on the heat of friction, which led that philosopher to the conclusion that heat is a form of motion, and the determination by Dr. Joule at a later period, of the equivalent of heat expressed in mechanical work, the doctrine of commutability and equivalence of force, first applied to these two agencies, has extended itself to the other forces operating in the material universe. Accordingly, the opinion is now gaining consistency and acceptance, that mechanical energy, heat, light, chemical action, electricity and magnetism, are mutually convertible, and are respectively equivalent to each other; moreover, that they are probably all the expression of a common force which manifests itself under these several modifications, according to the different material or dynamic conditions in which it operates.

Now, the belief has some time prevailed that the nervous, with perhaps other forms of organic energy, has its place in the same circle of reciprocally productive and equivalent forces; and not being electricity more than it is heat or chemical affinity, yet stands related to electricity and the other forces in the same way that they are related to each other.

But supposing this probable doctrine to be proved and to betoken a signal advance in physiology, are we come to the end of our inquiries? are we thereby enabled to explain even the most characteristic phenomena of the living organism?

By mechanical force duly applied, a fabric may be woven,

as well, or perhaps better, than by human hands; but by what intelligent pre-arrangement is the pattern determined and finally brought out? So in the production and development of an animal, and in its subsequent workings,—given the force or forces operating,—how are the determinate forms and qualities of the organism produced?

To all our most exquisite means of scrutiny, the ovum, as it proceeds from the parent, presents nothing to indicate the course of its future development; and yet we speedily can discern in it the traces of the new being, and recognise the successive appearance of each new member and organ—in due time and form and proportion—until the body is built up and completed after the pattern of the parent. We can perceive nothing in the ovum of man to distinguish it from that of a quadruped, although their final destination is so different. We are constrained, therefore, to admit some pre-existent condition, to us inscrutable, which determines the specific direction in which the forces, acting in development, although probably supplied from without, must operate within the organism. And the marvel reaches its height when we reflect, that not the character of the species merely, but the individual likeness of the parent—aye, of both parents—displays itself in the offspring; and not alone in bodily feature, but often also in intellectual and moral peculiarities.

Then, not alone in regulated form and proportion, do the parts appear, but all fitting harmoniously the one to the other, and each in its appointed time. The periods of incubation and gestation, different but determinate in each species; the regulated time of consolidation and completion of the bones of the skeleton; of the eruption and succession of the teeth; the periods of maturity and decline of the whole body and of particular organs; and a host of examples supplied by the history of the lower members of the creation, serve to illustrate that conspicuous law of subordination to time in the phenomena of the organic world, which Mr. Paget has aptly designated as the "chronometry of life."

Now, while we can in many cases discern the purpose of these adaptations of form, proportion, and time, and perceive how they, as it were, fit in with, although not apparently produced by, the outward circumstances in which the organism is placed; and while we must revere the infinite wisdom by which they are harmoniously brought about, we are still utterly at a loss to explain them by reference to efficient causes. In some of the lowest tribes of animals, it is true, the results are affected more or less by physical influences, but these influences operate upon internal conditions, existing independently. In the human body, even, you may cramp the growth of a Chinese foot or flatten a Carib skull, but this is suppression or distortion, not formation.

The growth of a finger or a tooth may be traced, and various steps in the process explained; but the acquirement by these and other parts, and indeed by the entire body, of their characteristic form and proportion, is still an inscrutable, at least an unpenetrated mystery. Unpenetrated, I mean, as regards the physical or efficient causes of the phenomena; for the purpose or final cause is often patent; and hence we see that teleological explanation holds, and doubtless must continue to hold, a large place in physiology.

But, finally, shall we, on that account, censure as rash or stigmatise as impious all attempts to go farther? Shall we presumptuously set limits to the scope of those inquiring faculties which God has conferred on man, or prejudge, and reject by anticipation, conclusions to which their rational and reverential exercise may lead? Assuredly not. Let us not, therefore, with narrow views of the scheme of Providence, worthy of a darker age, join in blindly denouncing the genial effort of one of the foremost men of science in our time, to refer mutations of organic form and the origin of species to natural causes of known operation. Faint as some may deem the prospect of success of Mr. Darwin's great attempt, let none condemn its tendency. Should it ever be shown that the wonderful adaptation and harmonious working, so conspicuous in the living creation, have been brought about by the operation of great natural causes, originally ordained by the Author of the Universe, and acting through countless ages of time, surely such an issue could but tend to enlighten and exalt our conceptions of creative wisdom.

Mr. Paget (London): I am sure, gentlemen, that I express your views in offering your thanks to Dr. Sharpey for the admirable address with which he has favoured the Association. It is a very happy feature in the proceedings of these meetings that we, who live in the hurry and deep responsibility of more practical life, should at times listen to those who stand by and work in pure science, and hear from them not only what suggestions they can give for the improvement of our practice, but what is the spirit with which they still continue working. I think it most happy for the Society that one could be induced to do this task who could bring to it so perfect and complete a learning and so sagacious and sober a judgment on the matter as Dr. Sharpey. I am sure I may speak not for this Association alone in offering our thanks to Dr. Sharpey, but I may say the whole scientific world will thank this Association for inducing him to express so distinctly his views. Among all men of science, there is no one whose judgment will be accepted with more reverence than his. I therefore move—

"That the cordial thanks of this meeting be given to Professor Sharpey for his very able and interesting address; and that he be requested to allow it to be published in the Journal."

Mr. Turner (Manchester): Mr. President, I imagine that I have been selected to second the vote of thanks to Dr. Sharpey in consequence of my having been engaged for so many years in the teaching of anatomy and physiology in Manchester. I never listened to a discourse upon the subject of physiology with so much pleasure and so much profit in the whole course of my life. I do not pretend to be a perfect judge upon matters of physiological science, but I pretend to say that I have been a tolerably hard student in that subject; and it is impossible, I think, that there is any one who has paid attention to that subject who will not subscribe most readily to by far the major part of the observations which Dr. Sharpey has brought forward in this paper. There are many points upon which I dare say we might differ in certain details; but for such a paper as that to go before the world, as Mr. Paget has just said, as emanating from this Society, and from the labours associated with it, I believe will confer upon it an immortal fame; and that this Association will be raised very high, indeed, in public estimation. I beg most cordially to second the vote of thanks to Dr. Sharpey for his admirable paper.

The motion was carried unanimously.

Dr. Sharpey: After the long time during which I have already occupied your attention, I will content myself by saying that I feel greatly flattered, pleased, and gratified; and that it is a great satisfaction to me to have met with such a very considerate and very kind reception.

PAPERS.

The following papers were then read:—

A Paper, by Dr. Wynn Williams, on

COMPOUND COMMINUTED FRACTURES OF THE SKULL.

The following is a brief note of this paper. The Author related several cases. A man, 28 years of age, was seen by the Author two years and a-half after an injury to the head, produced by the fall of a piece of slate on the vertex. He was rendered senseless by the blow, and for some days was confused, and afterwards, although he could walk about, he had never been able to do any work. There had been a wound in the head ever since the accident, and several spiculæ of bone had come away. When the Author saw him there was a fistulous opening over the upper and frontal end of the right parietal, bone from which offensive pus was poured out. The probe detected several loose pieces of bone. On cutting down to the part the Author found a fissure half an inch long, and picked from it eighteen small spiculæ of bone. He could then see distinctly the pulsation of the brain. At the expiration of a week, finding that the wound continued to discharge offensive pus, he made another examination and discovered a piece of bone lying under what appeared to be healthy bone. He was unable to draw it out with the forceps. Not liking to remove a piece of sound bone out of the patient's skull, either by the trephine or the saw, he notched the bone on each side of the opening with a pair of strong bone-nippers, and through the opening thus made succeeded in abstracting a piece of the inner table, quite smooth on its under surface, of the shape and size of the half of a half-crown piece, together with several smaller ones. After this the wound closed, and the man shortly returned to his work. The Author said that it had generally been held that the

splintering of the inner table of the skull, to a greater extent than the outer, was due to the greater brittleness of the former. Mr. Erichsen, however, attributed it to the direction of the fracturing force causing a certain loss of momentum in passing through the outer table. The Author considered that the support given to the layer first struck by the layer last struck prevented the former from being fractured to the same extent as the latter, which had no such support. If, he said, we take a piece of slate and knock a hole through it with a sharp-pointed hammer, the place of exit will be considerably larger than the place of entrance. Now, as each side of the slate is equally brittle, we might, he thought, dismiss the different degrees of brittleness without further comment. As regards the loss of momentum, suppose we take a piece of slate-rock of somewhat less than a quarter of an inch in thickness, and split it into three thin slates, and then take two of these slates and placing them in exact apposition, strike them with the pointed hammer with sufficient force to drive it through both, and, of course, the slate last struck will have a larger hole in it than the one first struck; but if we now place the three slates in exact apposition, and strike them with the hammer, we shall find on examining them that there is little or no difference between the first and second, because the first was supported by the second, and the second by the third, whereas the hole in the third will be considerably larger than in the first or the second, because it had no support at the point of exit. The Author then quoted Liston, Prescott Hewett, and Erichsen, to show that the prevailing opinion was, that when small fragments of bone were driven down upon the dura mater, inflammation was almost certain to be set up. He did not think that, unless at the time of the accident the membranes and brain had received some injury, that inflammation was likely to be set up, and he considered that the cases he had related countenanced this opinion. He had, he said, discovered only one writer, Sylvester O'Halloran, of Limerick, who published a work on injuries to the head, in 1793, who did not think the brain and membranes were particularly prone to take on inflammatory action after such injuries. With regard to the treatment of such cases as he had related, the Author said that as there was little tendency to that bugbear, inflammation, we ought not to bleed our patients; but after the immediate effects of the concussion are gone, an opiate would often give great relief to the peculiar restlessness of the patient. As regards other remedies, our patients would, as a rule, do as well without them as with them. Surgically, they should be treated on the same principles as would guide us in treating comminuted fractures in other parts of the body. There was, however, one Surgical point which he most particularly wished to impress on the members of the Association and others,—the advisability of substituting, when compelled to operate in a case of fracture of the skull, the bone-nippers (wrongly called bone-forceps) for the trephine and saw. If the operator can only introduce the point of one of the blades through the fractured bone, he will be surprised to find how readily he can enlarge the opening in this or that direction which might be deemed necessary, without removing more of the skull than is absolutely required for the extraction of the loose pieces or the liberation of those depressed.

A Paper, by Dr. Harley, was then read on

THE VALUE OF URINARY ANALYSIS IN THE DIAGNOSIS AND TREATMENT OF HEPATIC DISEASE.

The following is an abstract of the paper. Dr. Harley began by saying that as the practice of Medicine had been simplified in direct proportion as our means of "physical" diagnosis increased, he was glad to have the opportunity of calling attention to the fact that a knowledge of the state of the urine was as valuable in affections of the liver as of the kidney. Hitherto the only physical means we possessed of detecting and distinguishing between the various forms of hepatic disease did not extend beyond the acquiring a knowledge of the position and size of the liver by percussion, of the absence of bile from the stools by inspection, and of the presence of the biliary pigment in the urine, by the application of nitric acid to that secretion. Every one, however, must have occasionally met with cases where these means of research proved totally inadequate to their wants. This circumstance had led several Practitioners to seek for further aids to our diagnosis, and consequently at various times, during the last few years, valuable suggestions had fallen from different members of our Profession on this very subject. For example, Dr. Eiselt, of Prague, had called attention to the fact that in cases of melanotic cancer of the liver, the nature of the affection could occasionally be ascertained during the life of a patient by the presence of melanine in the urine. (A specimen of which Dr. Harley showed to the Association.) Urine containing melanine, although of the ordinary colour when voided, gradually assumes a dark hue on exposure during several hours to the action of the air; the oxygen of which appears to combine with the melanine. In some cases after twenty-four hours' exposure, the urine is nearly as dark as porter. Frerichs, again, in his admirable treatise on Diseases of the Liver had called attention to the fact that in acute or yellow atrophy of the liver two substances, tyrosine and leucine, which were formerly only known to the scientific chemist, are constantly present in the urine. Through the kindness of Dr. Wilks, Dr. Harley had had the opportunity of verifying this fact; and, moreover, in the case of a gentleman he had seen along with Mr. France, he not only found both tyrosine and leucine in the urine as chronic atrophy of the liver set in, but ascertained that the quantity of these substances increased as the disease went on to a fatal termination. In this case distinct crystals of tyrosine were found in the liver after death. The author thought that in all cases of obscure hepatic disease these substances ought to be looked for, and at the same time pointed out an easy way of ascertaining their presence. The next thing Dr. Harley called attention to was the method he recently laid before the Profession of distinguishing, by means of the presence or absence of bile acids in the urine, between jaundice the result of suppression and jaundice arising from obstruction,—the two varieties so ably described by Dr. Budd. After alluding to the great differences of opinion which have been hitherto held regarding the presence or absence of the biliary acids in the renal secretion in cases of hepatic disease, he pointed out how these discrepancies arose from the fact that the observers had tested the urine without sufficient regard to the cause of the jaundice; and then proceeded to show how easy it is to detect the presence of the bile acids by means of sulphuric acid and sugar. As the treatment in the two forms of jaundice differs in almost every particular, it is easy to see how important it is to be able to form a correct diagnosis in such cases. Dr. Harley concluded his remarks by saying, that he believed the presence of bile acids in the urine of jaundice might be regarded as positive evidence of the existence of obstruction in the course or termination of the common duct.

Dr. Thudichum said the views attributed by the Author to Professor Frerichs on the presence of leucine and tyrosine in the urine in hepatic affections, were in reality first brought forward by Professor Städeler. Dr. Thudichum also objected to the Author's term "acute atrophy" of the liver. He had seen cases in which, with all the symptoms ascribed to the so-called acute atrophy, the liver had been enlarged. A certain test of tyrosine was to boil nitrate of mercury with urine. If tyrosine were present, there would be a dark purple precipitate. As to the presence or absence of bile acids in the urine in jaundice, doubts had been expressed; but the doubt arose from employing Pettenkofer's test, which was not delicate enough for small quantities. In conclusion, he recommended the study of acute jaundice—the so-called acute atrophy—to the Profession, and suggested that urine from such cases should be sent to Professor Harley, or to others, for analysis.

VOTES OF THANKS.

Dr. Storrar moved, Dr. Markham seconded, and it was unanimously resolved—

"That the best thanks of the Association be given to those gentlemen who have contributed papers and cases at this meeting."

RELIGIOUS SERVICE AT THE MEETINGS OF THE ASSOCIATION.

The President: Gentlemen, it was my duty yesterday to read to you two letters. The first was one from Dr. Ogle, in which he called upon the Council to bring forward a motion that each anniversary meeting of this Association should be commenced with a religious service. Amendments were about to be proposed to that motion of Dr. Ogle. The Council have taken into their serious consideration—or rather I have taken it into my serious consideration, in conjunction with certain members of the Council—the very great inconveniences and unpleasantness that must arise from anything like a religious

discussion. We all of us, no doubt, have our own religious convictions, and I have no doubt that we endeavour, to the best of our poor ability, to act up to those religious convictions; but still I think, in a body of men such as we are, all of mature age, it is not at all probable that any discussion or any arguments are at all likely to influence or alter our particular religious convictions; and, therefore, as a discussion of that kind is likely to be productive of no real benefit, but may lead to a great deal of painful sensations, I take upon myself the responsibility of recommending that this question should not be brought forward at our meeting. I hope that Dr. Ogle, who acts from his religious conviction in thinking it right to bring the subject forward, will, in deference to what has been stated from the chair, and what I believe to be the general opinion of the meeting, not compel us to entertain his motion.

Dr. Ogle: I certainly shall not force upon the meeting anything that they are not willing to receive; but I shall take it that, until there is a decided opinion expressed to the contrary, the meeting agree with the words that have fallen from our President. I brought forward the resolution, and was driven into it by circumstances which it would be foreign to this question to dilate upon now. I felt it my duty to say that I should submit the resolution. I have been asked not to press it, and I leave myself entirely in the hands of the chairman.

Dr. Stewart: I was quite prepared to second the motion if Dr. Ogle had brought it forward. I merely say that I shall consider myself at perfect liberty the next year to bring forward some such motion.

THE PHARMACOPŒIAL WEIGHTS AND MEASURES.

The President: In accordance with notice given yesterday, I am about to read this resolution, proposed by Dr. Hodgkin:—

"That the British Medical Association desire, in the most courteous manner, to express to the General Medical Council a hope that the proposed alteration of the weights to be used in medicine may not be carried into effect; but that they may be allowed to remain as they now exist, unless the Council, with the sanction of the Government, is prepared to introduce the metric system already adopted, with great advantage, by many other countries."

I have nothing to say upon the resolution, except that this subject is, at the present moment, under the very deep consideration of the General Medical Council and its Executive Committee, and that they have submitted the question to various scientific men, who have, from time to time, shown great interest in the subject of the weights and measures to be employed throughout the United Kingdom.

VOTES OF THANKS.

A vote of thanks to the President and Fellows of the College of Physicians was proposed by Sir Charles Hastings, seconded by Mr. Paget, of Leicester, and carried unanimously.

A vote of thanks to the College of Surgeons was also carried. Proposed by Dr. Webster, and seconded by Mr. Propert.

The President having vacated the chair, it was taken by Sir Charles Hastings.

Dr. Conolly: I have very great pleasure in proposing—

"That the cordial thanks of the meeting be given to Dr. Burrows for the able and courteous manner in which he has presided at the meetings of the Association."

One word only I will trouble the Association with. I have had the great happiness to belong to this Association for thirty years. I was one of a number of thirty or forty who met under the presidency and with the support and at the suggestion of my dear friend Sir Charles Hastings, thirty years ago, in the Board-room of the Infirmary at Worcester, where the foundations of this great Association were laid. I need not say how much I rejoice to see him in health and vigour, and with a warm heart and good feelings, thirty years later, in this changeable world, presiding over the same institution in its present enlarged, expanded, and flourishing condition. Nevertheless, as an old provincial member, I must honestly confess to you (that is, to the Association, for you are all friends) that when I first heard that we were to meet in London, recollecting as I did the old cordial meetings in the provinces, it excited in my mind a little apprehension that the meeting here might not entirely respond to those feelings which had been excited by so many years of uninterrupted happiness and friendship among the members. But this feeling was entirely counteracted when I found that the presidency of the Association would be undertaken by so distinguished a person as Dr. Burrows—distinguished by his character, his great reputation, his knowledge of business, and his large experience, and, as you all must have seen through this meeting, by his excellent judgment and excellent temper. Therefore, Gentlemen, apologising to you for even troubling you at this late period with these observations, I have only to propose the resolution to your favourable acceptance.

Dr. Richardson: I have pain and pleasure in seconding this resolution,—pain that once again we must feel that we are "such stuff as dreams are made of," and that the dream which has gratified us for the last few days is nearly dissolved; pleasure, that I have an opportunity of seconding Dr. Conolly's resolution of a vote of thanks to our excellent President. I can only say—and I am sure I express unity and catholicity of feeling when I say it—that as Dr. Burrows entered this chair having no rival, so he has retained it in such a way that he has concentrated upon himself the feelings and affections of us all, and that we shall depart from this place assured that we have grown great by his example.

Mr. Paget (Leicester): I merely wish to remind the Society at large, that Dr. Burrows was one of the first metropolitan Physicians who entered the walls of the British Medical Association, or the Provincial Medical Association. If I mistake not, I met Dr. Burrows at the first meeting of the Association at Oxford, many, many years ago; and I recollect hailing his advent, and congratulating the Society upon his character at that time.

The resolution was carried by acclamation.

Dr. Burrows: I assure you that I feel most deeply sensible of the compliment that has just been paid to me. I feel deeply sensible of the compliment on many grounds. If one thing more than another could have enhanced the gratification that I feel in receiving your thanks, it is that those thanks should have been proposed by one so highly respected, so revered, and so admired as Dr. Conolly. It has long been said that the value of a compliment is enhanced according to the person from whom that compliment comes. *Laudari a laudato* is certainly here most forcibly felt by myself; and I deeply thank Dr. Conolly, who, under other circumstances—I believe it was entirely the circumstance of health—would have, I am sure, much more ably presided over you than I could possibly do, or than I have done. I thank, also, Dr. Richardson for the handsome terms in which he has been kind enough to allude to my services, and to the impression which I have made upon my Professional brethren. If I live in your hearts and in your esteem, I have, indeed, accomplished a victory of which I may be proud to the last moment of my life. I confess to have long since taken a very active interest in this noble Association. Mr. Paget and Dr. Webster have referred to the time when I joined your Association as that of the meeting at Oxford; but I can boast of having been a member of the Association long prior to the meeting at Oxford. I was present for the first time at the meeting which took place at Worcester, and took part in the proceedings at that meeting; and therefore I am *bonâ fide* an old member of the Association, and proud am I to call myself an old member. My long valued friend and relative, also, Sir Charles Hastings, has adverted to my services in bringing about the changes which have been conducive to the welfare of our common Profession. I certainly have from time to time (but I must not divulge the *secreta Collegiæ*) stood upon this floor and advocated what I believed to be reasonable changes, that were likely to be beneficial to our Profession. I have also, in my humble capacity, done all that I could to bring about the meeting of this Association in the Library of this College; but it required no persuasion or argument on my part to induce the President and Fellows to receive you here. It seemed to be a measure so right, and it came so completely home to the feelings and hearts of all the Fellows, that I do not think there was a dissentient voice. If the conduct of the College, in receiving you here, and the mode in which they have had the pleasure of entertaining you at a *soirée*, has conduced to the success of this meeting, and to the happiness and comfort of the members of the Profession who have come from the provinces, I am quite sure it will be an ample reward to the College. I can only repeat what I began with, by stating that, to the very last moment of my life, I shall rejoice that you have thought me worthy to sit in that chair and preside over you, and I shall consider that one of the greatest proofs that I have conducted myself

honourably in my Profession, is that you have elected me to that chair, and that you now have been kind enough to approve of my conduct in that chair.

The proceedings then terminated.

THE DINNER.

The dinner took place at the Albion Hotel, Aldersgate-street, at half-past six o'clock. One hundred and thirty-four members and visitors were present. The chair was occupied by Dr. Burrows. Dr. Stewart and Mr. Propert acted as Vice-Chairmen. The Chairman was supported on his right by Lord Chelmsford, the Venerable Archdeacon Hale, Dr. Budd (Senior Censor of the College of Physicians), etc.; and on his left by Sir Roundell Palmer (Solicitor-General), Sir Charles Hastings, the President and Vice-Presidents of the College of Surgeons, etc.

After the usual loyal toasts, the CHAIRMAN proposed "Prosperity to the Army, Navy, and Volunteers," connecting with the toast the names of Lord Chelmsford (who in the early part of his life had served in the Navy) and Dr. James Bird.

Lord CHELMSFORD returned thanks on behalf of the Navy, and Dr. JAMES BIRD for the Army.

Dr. BIRD took occasion to remark, in the course of his speech, that it must be highly gratifying to the Medical Profession to see Lord Chelmsford at the meeting. Lord Chelmsford had taken a zealous part in bringing before the public the interests of that excellent institution, the Medical Benevolent College. It was quite unnecessary for him (Dr. Bird) to pass any eulogium upon the Medical department of the Army. He would only say the heads of that service are anxious not only to do all that is creditable to the Army, but that will be creditable to the Profession which they represent. Dr. Gibson, a gentleman of unimpeachable honour, of great impartiality, and of great activity and energy, well represents that service.

The CHAIRMAN proposed "The Health of the Bishop and Clergy of the Diocese, and the Ministers of other Religious Denominations." I ask you, he said, in that toast, to drink to the health of Archdeacon Hale, the Rev. Dr. Bell, and any other clergyman who may be present to-day.

The Venerable Archdeacon HALE: I rise to perform the very agreeable duty of returning thanks on behalf of the clergy of this diocese and the other ministers of religion. I acknowledge with gratitude that the Medical and the Clerical professions are associated together by the strongest and closest ties. The object of both is in one sense the same—to alleviate bodily and mental misery. It is remarkable with what spirit and with what a similar degree of energy both the professions come forward in the performance of that most honourable and most humane task. If the clergy are always ready to attend at the bedside of the sick, and to do whatever may be in their power to alleviate their spiritual and also their temporal wants, not less ready, not less laudable, not less full of self-sacrifice, is the attendance of members of the Medical Profession. Gentlemen, you have your Associations. We have also our Convocations, and we have our Congresses; and I trust that, as our Associations may tend in some degree to strengthen our Church and to promote the interests of religion, so also your British Medical Association may tend to advance the honour of the Medical Profession by uniting the members together in more perfect unity, and producing all the good effect which such Associations are calculated to produce in this age of liberty and diffusion of universal information. There is one point in which I think these Associations are useful—the communication of knowledge. All knowledge, and especially Medical knowledge, is *publici juris*, which a man has no right to retain to himself; if he does so, he is a sordid and selfish man, carrying out what I should denominate as quackery. I trust that your Association will be the means of advancing Medical science, and of making cure more easy and more applicable to many very important diseases. As to stopping disease or hindering death, no man thinks that possible, any more than we think it possible to eradicate evil and stop sin.

The Rev. Dr. BELL: Most of the gentlemen here, connected with this now grand Association, know that I spent twenty-seven years in the Medical Profession before I was translated from that sacred Profession to one still more sacred. Years ago I looked forward to the period when this Association would no longer be known by the name of "Provincial," but by the name of British Medical Association. I therefore feel the greatest satisfaction in being present at this meeting, when we have met in unison with the Practitioners of the Metropolis. I trust that this will be looked upon as a great era, when all distinctions between the Practitioners of the Metropolis and those of the Provinces will be utterly done away with, and that they will henceforth be known as one body, anxiously studying to promote the interests of the Profession, and the good of those who are committed to their charge. Now, as I am more especially connected with that still higher profession of Divinity, I trust by God's help to be enabled by my conjoint knowledge of Medicine and Divinity to be still more useful to my fellow-men. I still cling with love to my former Profession, because it was my early choice, and because the longer I live, the more I feel the necessity of maintaining legitimate medicine in opposition to every species of quackery; and one of my great reasons for still adhering to this Association is this, that I may, amongst my clerical brethren, and amongst the people at large, stand firmly forward to declare my attachment to legitimate practice in opposition to everything empirical.

The CHAIRMAN next proposed "The House of Lords and the House of Commons, as represented by Lord Chelmsford and Sir Roundell Palmer."

Lord CHELMSFORD: I always upon these occasions feel the greatest gratification in having my name associated with that distinguised assembly to which I have the honour to belong. I have generally felt that I, perhaps, better represent that assembly, upon such occasions as this, than even an hereditary peer; because I embody in my own person that which is a primary characteristic of the institution. The order to which I belong is not one hemmed in by narrow and exclusive privileges. They have no privileges which do not belong to the country at large. Their families are upon the same footing with the humblest person in the realm; and they open their doors and their arms to receive with favour those whom either merit or good fortune may have introduced amongst them. Nor in their legislative functions can they be considered to have shown any want of sympathy with the people, or any disregard to the great interests of the nation. Occasions may have arisen on which they may have seemed to oppose the momentary wishes of the people; but it is only when they have considered that some darling scheme might oppress the nation. I may say, with great respect to my honourable and learned friend the Solicitor-General, who represents, fortunately, the House of Commons upon this occasion, that the House of Lords has the same regard for the privileges of the House of Commons as any of the subjects of the country.

Sir ROUNDELL PALMER: I think, Gentlemen, that every one who, in an assembly of Englishmen, has the honour of being called upon to represent the House of Commons in returning thanks for them, may always feel proud of that privilege; because it is a toast which one feels quite sure is drunk with sincerity in every assembly of Englishmen. And if every Englishman is interested in that system of self-government which he exercises through the instrumentality of the House of Commons, so every man in the country, the members of the House of Commons certainly as much as anybody else, feels most deeply interested in the welfare, in the duties and in the honour of the Medical Profession. Of course, there are much higher grounds than any that are political for that feeling; but I may say that, amongst the incidents of Parliamentary canvass, one which has been to me exceedingly striking, and also exceedingly agreeable, has been the opportunity of observing how the influence of the Medical Profession practically works in the great centres of our population. I most anxiously desire that it always may do so; for I am sure that that influence could not be entrusted either to a more honourable, or a more intelligent, or a more patriotic body of men. To return for one moment to the House of Commons, I feel at all times that the way in which that toast is accepted in all bodies of Englishmen is a most satisfactory test of the way in which our constitutional system works, because, in truth, though every one of us has his own politics, though we know that in the House of Commons there is an opposition of parties, and though at each election each of us takes his own side and is pretty keen about it, yet when it is all over, when we have returned our member, or the other side have returned their member, and the House of Commons meets, the country accepts them as the House of Commons, as the representative body; it places confidence in them that they will, as a whole, conscientiously and honourably endeavour to discharge their duties.

The CHAIRMAN: I am sure, gentlemen, I need not use many

words to excite you to give a mark of respect to the Medical Corporations of the country. We have, upon all occasions, an obligation to pay to those institutions; but more especially this year are we under deep obligations both to the Royal College of Physicians and to the Royal College of Surgeons. We are under obligations to the College of Physicians for their liberality in giving to us the use of their building for our meetings during the past week, as well as for the hospitable reception they have given us in their evening *conversazione;* and also we are under deep obligations to the Royal College of Surgeons of England for the splendid manner in which they entertained us at the *conversazione* in Lincoln's-inn Fields. We also wish, upon the present occasion, to incorporate with our thanks to those two bodies, our grateful thanks to the Society of Apothecaries for the many and great benefits which they have conferred upon the Profession, and especially for what they have done in promoting the cause of Medical education. I ask you to drink to "The Prosperity of the College of Physicians, the College of Surgeons, and the Society of Apothecaries;" joining with the toast the names of Dr. Budd, Senior Censor of the College of Physicians; Mr. Luke, President of the College of Surgeons; and Dr. Ansell, Chairman of the Court of Examiners of the Society of Apothecaries.

Dr. G. Budd: I beg to thank you on the part of the College of Physicians for the compliment which you have paid the Medical Corporations. It has given no ordinary gratification to the College of Physicians to see within the walls of their College a meeting of the British Medical Association—a gathering of men from every part of England, earnest in promoting the interests and upholding the reputation of the Medical Profession. It has long been a subject of regret to the Fellows and Members of the College that we have had so few opportunities of meeting our country friends within the College itself. In consequence of a limitation in its original charter, which allows only those Physicians who live in London and seven miles round to become members of it, the College has come to contain what we feel to be too small portion of those Physicians who in early life have been content to renounce the emoluments and turmoil of London life. It is impossible for any one to witness this great gathering of Medical men from every part of the Kingdom, without perceiving that they must have, as regards the Medical Profession, great social and political influence; and that this Association must have, as long as it continues in its present strength, great influence in the Medical Corporations. Already, by Medical legislation, which owes its origin, and, in a great measure, its accomplishment to this Association, we have entered upon a new era in Medical politics. The Fellows of the College of Physicians have frankly recognised this new condition of things, and they have, in obedience to what they conceive to be their duty to the Profession, endeavoured to enlarge the scope of their College, and as far as possible to make it what they feel, for the good of the Profession, it ought to be. On the part of the College of Physicians, I may be permitted to express a hope that now that the Association has met, under the Presidency of one of the most honoured of our Fellows, one whom the College has chosen to be its representative in the Medical Council; now that so many distinguished Physicians and Surgeons from every part of the country have grown familiar with the College, and day by day, in the intervals of their more engrossing occupations, have contemplated the lineaments of Harvey, Glisson, Sydenham, and Mead; that a general desire will arise among Physicians about to practise their Profession in the country to make for themselves a professional home within the College; to constitute themselves the successors of those illustrious men who first made Medicine in this country a liberal Profession; and by connecting it with all the learning of their time, and with every department of natural science, contributed more, perhaps, than any other human agency has done to give the Profession the social position it at present occupies.

Mr. Luke returned thanks for the College of Surgeons; and Dr. Ansell for the Society of Apothecaries.

The Chairman: I have to propose to you a toast which needs no words of mine to recommend it to your acceptance. "Prosperity to the British Medical Association." (Great applause.) I have so recently in another place publicly expressed how much benefit may arise to our Profession from this Association, that I need not dilate upon the subject now. The large attendance around the tables testifies to your concurrence in the sentiments. I feel that this toast would not come to you as it ought to do, unless with that toast of "Prosperity to the British Medical Association" I were to connect with it the name of the founder of that institution. (Applause.) We have at our table to-day that founder, Sir Charles Hastings. I have no need to descant either upon his position as a Physician in his locality, on his high attainments, on his independent principles, or upon the benefits that he has conferred upon our Profession, by taking part in the foundation of this institution, and by the manner in which he has for thirty years devoted the best energies of his mind and his time to the interests of this Association. He has the proud satisfaction of being alive to see the Association achieve a prosperity which, at the time of its formation, his most sanguine expectations could never have anticipated. No words of mine can express more than you all feel in the way of gratitude to Sir Charles Hastings, not only for his labours in the formation of this institution, but for the labour which he has expended upon it since its formation.

Sir Charles Hastings: I always rise on these occasions with a feeling of the deepest gratitude and yet with feelings of embarrassment, because you know very well that words form a very imperfect expression of deep thoughts and feelings. I therefore can only say, as regards my personal feelings, I feel deeply indebted to you, and I will try my best to deserve your great commendation of my efforts. But, I will say as to that part of the toast in which you have drunk "Prosperity to the British Medical Association," nothing that I can say can sufficiently express to you the feelings of satisfaction with which I am filled, when I reflect that in connexion with earnest and serious, and discreet and able men, I, thirty years ago (a long period in a man's life), commenced this great Association, under circumstances predicating a certain degree of success, of which we all felt confident certainly, though we did not anticipate the splendid career which has hitherto attended this noble Association. I think after thirty years, we must say that to a very considerable extent we have fulfilled all the obligations which we then laid upon ourselves. We may appeal to our *Transactions* to show that in many points of Medical science we have introduced much that is valuable. We may look to our Journal to show the progress of Medical science. If, again, we look to the organisation of the Medical Profession, we have been instrumental in bringing about all those changes which those thirty years have produced. I think I caught from the Solicitor-General a remark which pleased me much. I think he said, that he invariably found that in the towns which he had been seeking to secure his election, his best friends were among the Medical Profession. And, I may also say, we found this to be the case in all our arduous endeavours to promote the passing of the Medical Act. It was carried by the combined effort of the Medical Profession in the provinces, calling upon the members of the House of Commons, and pointing out to them the importance of some change in Medical organisation. Was it not by that means that we obtained the Medical Act? (Hear, hear.) You are all aware that, in carrying out an Act of that importance, and dealing with the interests involved in it, time must be allowed before the full effects of it can be produced. By what means, I would say boldly, could we have met in this Metropolis, in the College of Physicians, before the passing of the Medical Act? It would have been impossible, and we felt it to be so; but now that that great and dignified and yet active College have opened their doors widely, and received the whole body of the Profession, turning what was formerly a club into a great Medical Institution, we are too glad to throw ourselves into their arms, and tell them that we are their obedient children. It is a proud satisfaction to us, that on this occasion, when we have come to the Metropolis, we have received from the College of Physicians every encouragement. They have told us they wish us God-speed; and, instead of feeling any jealousy of the position we have occupied, they are anxious that it should be still higher. This, at least, is one reward which the Medical Act has brought us; and I trust that in future times, by elevating the Medical education of the country, and by distributing more generally those privileges which attach to the Profession, and which that Act confers upon you, the position of the Profession will be still more elevated than it has ever been. Then, how pleasant it has been to us, in the various towns in which we have met, to make friends; to encourage harmony between our brethren; to hold out the right hand of fellowship to all, and to say to each town where we went,

"Encourage us in our course; help us in unravelling the great mysteries of nature." We have also had the great satisfaction of giving birth to a system of relief to our poorer brethren—a system which within this year has increased very greatly, and I trust is destined to bear the best fruit to the Profession at large. We exercise an uncertain and an obscure art; but still our art is daily improving, and the mysteries of science are every day being revealed to us. At present we see through a glass darkly; and there are those who believe that the day will come when a Medical Newton may arise, when the same certainty which he discovered in the physical world may be found to attach to vital forces, and that the time may come when the Medical art may be exercised on more certain grounds. We stand on Mount Pisgah, like Moses of old, and look forward to the good land, where the fruit may be still more abundant, and where we may exercise our skill with still greater certainty. I think I see in this Association the promise of much future good. What has already been done fills my breast with the greatest feeling of gratification. I thank God that he has preserved my life for thirty years to see the progress of this great experiment.

Lord Chelmsford, in proposing "The Health of the President," said: To be a distinguished member of such a distinguished Profession must be a high honour. I have for many years been personally though not familiarly acquainted with your excellent President. Every man's public character is known by the associations with which it is connected—by those accompaniments which the mention of his name calls forth; and I have never heard the name of Dr. Burrows mentioned without its being accompanied with expressions of respect. You yourselves have estimated him rightly by placing him in the position he occupies; and though I cannot appreciate him so well as you, yet I can honour him with you, and I ask you to give him honour on the present occasion by drinking his health, and wishing him long life and happiness.

The Chairman: I am sure you will be satisfied with a few words, if those words are the words of sincerity, if they come from the heart, in thanking you for the very high compliment you have just now conferred upon me. I am deeply indebted to Lord Chelmsford for the very handsome terms in which he has been kind enough to speak of me. A professional man lives by his character, and I am very grateful and very proud that Lord Chelmsford has estimated me in the way he has done. I assure you that I very deeply appreciate the honour conferred upon me by placing me for this year at the head of this noble Institution; and, whatever my fate in after life, I shall ever consider this one of the proudest days I have lived to see; and nothing that can occur hereafter can make me feel more gratitude than, that what I have done should have deserved the confidence of my Professional brethren. From henceforth my most earnest endeavours will be to be of service to this noble institution. I thank you most sincerely.

Mr. Hodson proposed "Success to the Medical Benevolent Institution," coupling with the toast the names of Mr. Toynbee and Mr. Propert, who both returned thanks.

Dr. Radclyffe Hall: Many besides myself may have entertained the superstitious belief that whatever may confidently be looked forward to as going to happen will usually fail to come to pass; but superstitions ought not to live in such a centre of intellect and science and art as this, and mine has died a natural death; for, great as my expectations were, confidently as I held them, I confess that they have been more than surpassed by what I have seen and heard. I will not speak of the cordiality of our reception, or the splendour of the hospitality with which we have been treated, further than to say that, if anything could equal the good things provided for our material gratification, it could only have been those produced for our intellectual satisfaction. At our meetings, every form of eloquence has had its example and its representative man—the vivid and impassioned, the calm and self-sustained, the vigorous and profound and sage; and, in our intellectual bouquet, the rose, the shamrock, and the thistle formed a harmonius whole. And though we may not venture to say that the addresses represent a picture of anything that is past, and we can scarcely flatter ourselves with the hope that they will for the future be a standard attainable by us, yet they do indeed furnish us with a hope for the future. The great motto of this noble Association, like the realm of which it forms part, should be *Tria juncta in uno;* and, though we had jewels from the island of the western wave sparkling with their native lustre, and though Scotland furnished us with men whom we hold in the highest esteem, still, like Oliver Twist, we cry for "more;" and we shall only cease that cry when Ireland shall send us all those of her professors having the eminence and eloquence of Dr. Walshe, when Scotland shall send us all those of her professors whom we hold in the reverence and esteem with which we regard Professor Sharpey, and when England shall send all of her professors who can exhibit to us so bright an example as Mr. Paget. I will not attempt to laud by any eulogistic words of mine a single epithet of those addresses to which you have listened; but I will content myself by expressing my cordial thanks to the President for having done me the honour, however unexpectedly to myself, of allowing me the pleasure of proposing as a toast for your reception, that which I am sure you will receive with unanimity and cordiality—our warmest thanks to the deliverers of addresses.

Mr. Paget: I beg for myself and on the part of my colleagues, the deliverers of addresses, to return you our most sincere thanks for the compliment you have paid us in thus again rendering us your thanks. I cannot say that this is the first time we have received them; for I am sure that I express the opinions of my colleagues, as I do my own, when I say that none of us, accustomed as we were to public speaking, ever met a more attentive or a more grateful audience. If there had been at any time any difficulty in our tasks, the kind cheers which greeted us continually would have warmed us to the work, and made us capable of it. Dr. Radclyffe Hall has eloquently told a part, at least, of the secret of the success, if it were success, with which the orators were chosen, for there was that happy rivalry amongst us of English, Scotch, and Irish, all friends together, and yet fairly rivals, that we were resolved that we should each do our best. Nor was Wales unrepresented; for if Wales did not speak, Wales, in the person of the most distinguished Welchman, cheered. I can only hope that the example which we gave, not of great success, but of hard labour for the promotion of the purposes of this Association, may find its imitation in all future years. Sure I am that no example could be better imitated than of the instance shown to-day of asking each year some leading physiologist to tell the members of the Association what has been passing during the year in his particular branch of science. I think it was impossible for any one to have listened to the profound address of Dr. Sharpey without being a better man for it—better in intellect, better in his appreciation of the labours of others not engaged in the same precise pursuit as himself, better in his charity for all men, and better in his aspirations for the future. If this work be but done every year, it will add largely to the continually growing success and the continual influence of this great Association. For my colleagues and myself I render to the Association our best thanks for this repetition of their gratitude.

The Chairman: The advanced hour of the evening and the thinning of our ranks, admonish me that I must bring this delightful meeting to a close. I am sure that there is not one of us present who will regret the hours which he has passed in the society of his fellow-labourers. We all should rejoice at again having met those whom we knew before, and at having had the opportunity of cementing friendships which have already been formed, and we should also rejoice that we have met others whom we had not known before, and whom we have now learnt thoroughly to appreciate. The best of friends must part, and I am afraid that we who have made friendships, and which friendships I trust may last many a long year, must now part and say good-bye. Let this be the last toast of the evening; and in giving that toast, I go to that Book of all books, the best of books for a sentiment; and I would ask you to drink one more glass of wine to this sentiment, "Let brotherly love continue."

Officers of the Metropolitan Association of Medical Officers of Health for the Year 1862-3.—*President*—Robert Dundas Thomson, M.D., F.R.S. *Vice-Presidents*—Lionel Beale, Dr. Druitt, and Dr. Sanderson. *Treasurer*—Charles J. B. Aldis, M.D. *Secretaries*—George Buchanan, M.D., 75, Gower-street, W.C., and Thomas Hillier, M.D., 21, Upper Gower-street, W.C. The above-named officers of the Association *ex officio*. *Committee of General Purposes*—Edward Ballard, M.D., Frederick J. Burge, Septimus Gibbon, M.D., C. F. J. Lord, John Liddle, G. E. Nicholas, William Rendle, and J. N. Vinen, M.D.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—At the late Graduation Term, held on August 7, the following Candidates, after the usual Examinations, received Degrees in Medicine and Surgery, making the total number during the year twenty-eight. Degree of M.D. :—

David Manson, Honourably Distinguished; William Ganld, John Grant.

Degree of M.B. :—

Alexander Ferrier Angus Fairweather, David Arthur Leslie, James Murray, Charles Smart.

Degree of M.C. :—

David Manson, Honourably Distinguished; Alexander Ferrier Angus Fairweather, William Gauld, John Grant, David Arthur Leslie, James Murray, Charles Smart.

At the same time, the following gentlemen were declared to have passed part of their Examinations :—

Charles Alexander, George Andrew, Charles Buchan, Alexander Collie, Robert Collins, James Davidson, John Eadon, William J. Elmslie, Owen Evans, P. G. Fropier, James E. Fowler, James A. S. Grant, Edward Gray, Wm. M. Harmer, Alexander Johnston, Robert Davidson Kemp, Wm. M'Lean, John B. M'Leod, John S. M'Robbie, Patrick Manson, William F. Morrison, James Ross, Andrew Skeen, James Dear Smith, Robert Walker, George Yeats, David Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen have passed their First Professional Examinations during the reeent sittings of the Examiners :—

Messrs. George Dickson, Edinburgh; William Bentley Ford, Waterford; James Jamieson, Bowden; John Johnstone, Liverpool; George Macdonald, Perthshire; Alexander J. Macgregor, Perthshire; Paul Moffatt, Northumberland; James M'Canl Edinburgh; Schoedde Robertson, County Westmeath; and John Stewart, Berwickshire.

The following gentlemen have passed their Final Examinations, and been admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh :—

Messrs. William Sealy Barry, Knockurn; Edward Johnson, Calcutta; William Jackson Kennedy, Londonderry; John Bower Morehouse, Holmfirth; William Macnab, County Derry; John M'Keogh, County Tipperary; and Robert Stobie, Orkney.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen have passed their First Professional Examinations during the reeent sittings of the Examiners :—

Messrs. Alexander M. Anderson, Tnmmelbridge; John Currie, Dunfermline; Stewart Cowper, Coatbridge; Joseph Fleming, County Donegal; Gordon Hammond Brechin; John Millar, Edinburgh; John Macdougall, Glasgow; William Walker, Ayrshire; and James Watson, Edinburgh.

The following gentlemen have passed their Final Examinations, and obtained the Diploma of Licentiate of the College:—

Messrs. Alexander Allison, Strathhaven; John Buckley, Cork; James Henry George Hill, Bengal; James Hardie, East Lothian; Walter Lorraine, Dumfriesshire; William Muir Muirhead, Edinburgh; Robert Hudson, Newett, County Louth; John Rutherford Ryley, Waterford; Charles Hollard Skae, Edinburgh; and Peter White Haddington.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Seience and Praetiee of Medicine, and received Certificates to Practise, on Thursday, August 7, 1862 :—

John Jones, 26, Drury-lane. John Edwin Foster, The Oaks, Harrowgate; Alexander Leadman, Leeds, Yorkshire; Percy Milligan, Keighley, Yorkshire; Charles Orton, March, Cambridgeshire; Gwynne Henry Harries, Haverfordwest.

The following gentlemen also on the same day passed their First Examination :—

Ebenezer Snell, Middlesex Hospital; Griffith Llewelyn Carreg, Queen's College, Birmingham.

APPOINTMENTS.

ALDRIDGE.—Russell Aldridge, M.D. Univ. Edin., L.R.C.S. Edin., L.S.A. Lond., has been eleeted Medical Officer for the Union Workhouse, and District No. 1 of the Yeovil Union, Somersetshire, *vice* Mr. William Fancourt Tomkyns, M.R.C.S. Eng., L.S.A. Lond., resigned.

BARKER.—Walter Barker, M.R.C.S. Eng., L.S.A. Lond., has been appointed Assistant House-Surgeon and Out-door Visitor to the Infirmary, Stockport, Cheshire, *vice* T. Vernon Rayner, M.R.C.S. Eng., resigned.

BIRD.—John Durham Bird, M.R.C.S. Eng., L.S.A. Lond., late House-Surgeon to Infirmary, Stockport, Cheshire, has been elected an Honorary Staff Surgeon.

EDWARDS.—Dr. W. T. Edwards (late Consulting-Surgeon) has been appointed Physician to the Glamorgan and Monmouth Infirmary, Cardiff.

FRAZER.—Thomas Frazer, M.D. Univ. Glasg., L.R.C.S. Edin., Staff Surgeon, R.N., of Pembroke Dock-yard, has been appointed to Devonport Dock-yard, *vice* William Folds, F.R.C.S. Eng., L.S.A. Lond., Staff-Surgeon, R.N., placed on the retired list.

GALE.—Henry Stanley Gale, M.R.C.S. Eng., L.S.A. Lond., F.R.B.S., has been elected House-Surgeon to the Stockport Infirmary, *vice* Mr. John Durham Bird, elected Staff-Surgeon.

HEYGATE.—James Heygate, M.D. Univ. Edin., M.R.C.S. Eng., F.R.S., Consulting Physician to the Derbyshire General Infirmary, and J. P. for the County and Borough of Derby, has been elected to the General Council of the British Medical Association as one of the Representatives of the Midland Branch.

HITCHMAN.—John Hitchman, M.D. Univ. St. And., M.R.C.P. Lond., (exam), F.R.C.S. Eng., L.S.A. Lond., has been elected to the General Council of the British Medical Association as one of the Representatives of the Midland Branch.

HOOD.—William Charles Hood, M.D. Univ. St. And., F.R.C.P. Edin., M.R.C.P. Lond., Resident-Physician and Medical Superintendent of the Bethlem Hospital for Lunatics, has been appointed Visiting Medical Officer to the Court of Chancery.

MACIVER.—Donald MacIver, M.D. Univ. Edin., M.R.C.S. Eng., has been appointed Resident-Surgeon to the Birmingham and Midland Counties Lying-in Hospital and Dispensary for Diseases of Women and Children, *vice* Edward Spooner Machin, M.R.C.S. Eng.

MEREDITH.—Richard Meredith has been appointed Public Vaccinator by Guardians of the Dudley Union, Worcestershire.

MOORE.—J. D. Moore, M.D. Univ. Edin., F.L.S., etc., has been appointed House-Surgeon to the Lancaster County Lunatic Asylum, *vice* P. Stark, L.R.C.P., resigned.

PEARSON.—Thomas Robert Pearson, M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Nottingham County and Borough Lunatic Asylum, *vice* John Sutton, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., resigned.

ROBERTS.—Frederick John Roberts, M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the District Infirmary, Ashton-under-Lyne, Lancashire, *vice* James Nuttall, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

TROTTER.—Charles John Trotter, M.R.C.S. Eng. and L.M., L.S.A. Lond., has been elected Medical Officer for the New Workhouse at Dean House, near Holmfirth, Huddersfield Union, Yorkshire.

WALFORD.—Angustus David Ceely Walford, M.R.C.S. Eng., has been appointed Superintendent of the Birmingham and Midland Counties Lying-in Hospital and Dispensary for Diseases of Women and Children.

DEATHS.

CHEATLE.—August 8, Thomas Cheatle, of Burford, Oxfordshire, L.S.A. Lond, aged 63.

HEALY.—Augnst 2, at Ennis, Co. Clare, Michael Healy, M.D. Univ. Edin., F.R.C.S. Irel., M.R.C.S. Eng., Surgeon Clare Militia.

MARCEL DE SERRES.—M. Marcel de Serres, Professor of Geology at the Faculty of Sciences, Montpellier, and well known for numerons and remarkable works on Natnral History, has jnst died at the good old age of 82, on the eve of the fifty-third anniversary of his appointment to his Professor's chair.

THORNHILL.—Augnst 10, David Clarke Thornhill, of Atherstone, Warwickshire, formerly of Stratford Green, Essex, M.R.C.S. Eng., L.S.A. Lond., aged 30.

WEST.—March 14, Charles Turner West, of Kingston-npon-Hull, M.R.C.S. Eng., L.S.A. Lond., formerly Surgeon to the Hull General Dispensary.

LONDON GAZETTE.

Augnst 8.

18TH HUSSARS.—Veterinary Surgeon John Mills, from the Royal Artillery, to be Veterinary Surgeon, *vice* Austin Cooper Shaw, who resigns; dated Augnst 8, 1862.

42ND FOOT.—Staff Assistant-Surgeon Alfred Frederick Stafford Clarke, M.D., to be Assistant-Surgeon, *vice* Wilkes, appointed to the Staff; dated August 8, 1862.

52ND FOOT.—Staff Assistant-Surgeon Augustus Robinson Hall to be Assistant-Snrgeon, *vice* McGowan, appointed to the Staff; dated August 8, 1862.

71ST FOOT.—Staff Assistant-Surgeon William Ironside, M.D., to be Assistant-Surgeon, *vice* Leach, appointed to the Staff; dated August 8, 1862.

RIFLE BRIGADE.—Staff Assistant-Surgeon William Hill Climo, M.D., to be Assistant-Snrgeon, *vice* Storey, appointed to the Staff; dated Augnst 8, 1862.

Staff Assistant-Surgeon Walter Nethercoat Pell to be Assistant-Surgeon, *vice* Norris, appointed to the Staff; dated Augnst 8, 1862.

MEDICAL DEPARTMENT.—Surgeon-Major Archibald Alexander, retired upon half-pay, late 4th Hussars, to have the honorary rank of Deputy Inspector-General of Hospitals; dated July 29, 1862.

Assistant-Snrgeon Edwin Wilkes, from the 42nd Foot, to be Staff Assistant-Snrgeon, *vice* Pell, appointed to the Rifle Brigade; dated August 8, 1862.

Assistant-Snrgeon Alexander Thorbnrn McGowan, from the 52nd Foot, to be Staff Assistant-Surgeon, *vice* A. F. S. Clarke, M.D., appointed to the 42nd Foot; dated August 8, 1862.

Assistant-Surgeon Walter Leach, from the 71st Foot, to be Staff Assistant-Snrgeon, *vice* Hall, appointed to the 52nd Foot; dated Augnst 8, 1862.

Assistant-Surgeon John Storey, from the Rifle Brigade, to be Staff Assistant-Snrgeon, *vice* W. Ironside, appointed to the 71st Foot; dated August 8, 1862.

Assistant-Surgeon Nathaniel Norris, from the Rifle Brigade, to be Staff Assistant-Surgeon, *vice* W. H. Climo, M.D., appointed to the Rifle Brigade; dated Augnst 8, 1862.

Staff Assistant-Surgeon George Clarence Hyde has been permitted to resign his appointment; dated August 8, 1862.

VETERINARY DEPARTMENT.—Donald Maclean, Gent, to be Acting Veterinary Snrgeon; dated August 8, 1862.

BOMBAY ARMY MEDICAL OFFICERS.—Assistant-Surgeon James George Fraser, M.D., to be Surgeon, *vice* Neilson, deceased; dated May 2, 1862.

Surgeon William Campbell, M.D., to be Surgeon-Major; dated May 11, 1862.

STAFFORDSHIRE RIFLE VOLUNTEERS.—(4th Battalion, 32nd Company.)—Vincent Jackson, Gent, to be Honorary Assistant Surgeon, *vice* Hancox, resigned; dated August 2, 1862.

August 12.

5TH DUKE OF CORNWALL'S ARTILLERY VOLUNTEER CORPS.—Banfield T. Vivian to be Honorary Assistant-Surgeon; dated August 6, 1862.

M. CLAUDE BERNARD.—M. C. Bernard, Professor of Medicine at the Imperial College of France, and Professor of General Physiology at the Faculty of Sciences of Paris, has been promoted to the rank of Officer of the Legion of Honour.

THE LAUNCESTON MURDER.—The main part of the circumstantial evidence on which the man John Doidge was found guilty of murder was the detection, by the microscope, of blood-stains on his clothes, and of some minute coagula of blood on a billhook in his possession. Professor Taylor rightly allowed that no one could positively distinguish human from animal blood, but added that in this case the blood had all the appearance of human blood. He said that he did not rely upon the chemical examination, but on the microscopic, and in the course of twenty years' practice had never been more satisfied than on the present occasion.

THE CASE OF THE REV. J. LIVESEY.—Isaac Howard, late sexton of St. Phillip's burial-ground, Sheffield, has since his conviction made a statement exonerating the Rev. J. Livesey from the imputations contained in his former allegations. Howard admits that he alone is responsible for the removal of bodies in the burial-ground, and that he had removed them because it saved him labour, the section desecrated being more easily worked than the harder soil of other portions. As to dissected bodies, he declares that no burial service had ever been read over them for the last thirty years, and yet both incumbents and curates connected with the cemetery had always granted certificates of burial in the same form as those granted by Mr. Livesey.

DEATH FROM CHLOROFORM.—On Monday an inquiry was held at the King's College Hospital, before Mr. Bedford, the Coroner for Westminster, touching the death of Elizabeth Freed, aged 17. Mr. R. Partridge, Surgeon of the Hospital, deposed that the deceased was admitted on July 23, and died on August 8. He understood she met with an accident by falling against an iron railing, and she was suffering from a very offensive mortifying wound. It was necessary, for the purpose of closing the wound, that a short but sharp operation should be undergone. The deceased consented to take chloroform, and, being a very nervous girl, it was administered with great precaution. In consequence of the deceased having a feeble and fatty heart, which had not been discovered, the deceased died in a short time after the chloroform was administered. The jury consulted for a short time, and returned the following verdict:—"That the deceased died from the administration of chloroform, in consequence of a disease of the heart, but the jury find that the chloroform was properly administered."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Many articles of news, letters, etc., including "Justice to the Surrey County Hospital," "Williamson *v.* The London and Brighton Railway Company," "The Jubilee Presentation to Dr. Guthrie," have been postponed in consequence of the unusual demand on our space.

A correspondent of the *Times* writes to propose a new set of weights, based upon a decimal division of the avoirdupois pound. The 10th, or 700 grs., to be called a *decat*, the 100th an *ecatost*, the 1000th a *kiliost*, the 10,000th a *muriost*; the sign for the *decat* to be δ, for the *ekatost* ϵ, for the *kiliost* κ, for the *muriost* μ. We may express our regret at starting that any one should meddle with Greek who does not know how to read it; for the very notion of spelling *ekatost* without the *h*, *kiliost* for *chiliost*, and *muriost* for *myriost* is horrible. But this system would only give us half a dozen new names and symbols, and add to our confusion. The best plan will be to use the *grain* and *pound*; everything else is superfluous; and we should get very little by the privilege of calling a thousand grains a *chiliost*. Griffin's system, detailed in his "Chemical Recreations," of dividiug the pound into *septems* is worth studying.

ERRATA.—In the *Medical Times and Gazette* for August 9, in the article on the London Meeting of the British Association, p. 131, last line, *for* "complimentary" *read* "complementary." In the list of appointments, *for* "John Bubb, L.S A." *read* "John Bubb, M.R.C.S. L.S.A."; *for* "H. S. Gull" *read* "H. S. Gale."

CAUSE OF IDIOCY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was called this day to see a patient in a family where there are two children. The youngest is a fine intelligent child for its age, but the eldest is idiotic and squints. I was informed by the parent that the forceps were used at the birth of the idiotic child, but not at the birth of the other.

I am, &c.

Coleraine, Ireland, August 2. JAMES C. L. CARSON, M.D.

RESULTS OF OVARIOTOMY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have to thank your anonymous correspondent, "Cocker," for drawing attention to an error in a report of some remarks made by me upon the results of ovariotomy, and published in your Number of July 26. I say that my experience gives "a result of 24 recoveries to 16 deaths, a proportion exactly of 2 recoveries to 3 operations." You say correctly this should have been 3 recoveries to 5 operations; and I hope you will allow me to explain how I fell into so evident a mistake. The paper, though published among your "Original Lectures," was not a lecture prepared with care and delivered with the usual form, but was really (as its title, "Clinical Remarks made at the Hospital" implies) a report of a few remarks made at the bed-side of the patients, or in the wards, on the operating day. Many of these remarks were suggested by the questions of gentlemen present. One of them asked me how many times I had done ovariotomy. I said 40, and the result was 24 recoveries to 16 deaths. "Oh," said some one, "that is very good. It is better than amputation of the thigh. It is 2 to 3." "About that," said I. "*Exactly*, not *about*," said my friend. "2 to 3, 4 to 6, 8 to 12, 16 to 24. It is exactly 2 to 3." And I went home with the pleasant feeling that I had obtained 2 recoveries to 3 operations; and it was not until I saw "Cocker's" note that I discovered the error, and saw that while the proportion of deaths to recoveries was as 2 to 3, the proportion of recoveries to operations was as 3 to 5. I am very glad the error has been pointed out, as it is possible that I might hereafter have stated what I believed to be the proportional mortality, without also giving the date by which the error might be corrected.

I am, &c. T. SPENCER WELLS.

3, Upper Grosvenor-street, August 9.

MEDICINES FOR CROMWELL'S TROOPS IN IRELAND.—The following document is copied from the original among the records in Birmingham Tower, Dublin:—

"Mr. Richard Clarke, Lycence to take up Medicauts.—Whereas Mr. Richard Clarke, Apothecary Genll., hath for the supply of medicants for the head-quarters and use of the army sent for the pticulars in the annexed paper, but whereof are come to this Court in three caskes directed to the Ld. Lieut. of Ireland, wh ye commrs of the customs, &c., will not permit him to take up without the order of this Board for that purpose, It is thought fit and ordered yt ye said commrs do permit the said Apothecary Genll. to take up the same duty free, and yt Dr. Waterhouse, Dr. Yarner, and Dr. Foy, or any two of them, doe view the said pticulars and make report unto this Board the quantity and quality of them for further consideracon.—Dated at the New Customs House, Dublin, ye 24th of June, 1659.—Tho. Herbert, Secr.

"The pticulars sent for the Apothecary Genll. are as follows (*viz.*):—

"Powder sugar. Loaf sugar. (The quantity expressed by some abbreviation not intelligible.)

White candie . .	lib. 20	Brown candie . .	lib. x.
Anniseede . . .	lib. 8	Oyle olive . . .	gall 20
Juice of liquorice .	lib. iij.	Rubarcke . . .	lib. j.
Sweet almonds . .	lib. vj.	Almond cakes . .	lib. x.
Manna . . .	lib. j.	Aquæ flor. aurant .	lib. ij.
Alors hepat. . .	lib. 2	Sarsaparill . . .	lib. 8
Succoritine . . .	lib. 2		

(Signed) Richard Clarke."

—*Ulster Journal of Archæology*, Vol. iii. p. 163, 1855.

This care to provide good "medicants" for the army, after Cromwell's death, seems highly creditable to the local authorities; and though the inefficiency, as well as the simplicity of many of the "pticulars" must be admitted, they present a favourable contrast to much of the pharmacy of the time. Witness the gout powder of Sir Theodore Mayerne, Physician to James I. and Charles I. and II., made of the "raspings of a human skull unburied," and his "balsam of bats," composed of adders, bats, sucking whelps, earth-worms," etc.—J. D.

COMMUNICATIONS have been received from:—

Dr. RAMSKILL; Dr. ROLLESTON; Prof. GULLIVER; Dr. J. D. MOORE; ARMY MEDICAL SCHOOL, CHATHAM; Dr. GREY; Dr. E. F. WHIDBORNE; Dr. HILLIER; Mr. C. H. MOORE; VERITAS; Dr. OGILVIE; J. D.; M. D.; Dr. MUNRO

APPOINTMENTS FOR THE WEEK.

August 16. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

18. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.

19. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

20. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Orthopædic Hospital, 2 p.m.; Middlesex, 1 p.m.

21. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.

22. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

No. 12, Ward's Patent Albert

Lounging Chair, the most simple and luxurious extant, is fitted for the Drawing Room, Boudoir, Cabin, or Camp; is made in Wood, Iron, or Brass, and folds into a small compass for shipment. From 4½ Guineas.

No. 17, a Four-wheel Victoria Pleasure-ground Chair, mounted in a very light Iron-framed Carriage, upon C and patent India-rubber Springs, is either drawn by Hand or Animal, and is the most elegant and easiest Chair made.

No. 16, a ditto, upon three wheels, mounted same as four wheels, on C and India-rubber Springs.

No. 19, a Bath Chair, with Leather Head, and Folding German Shutter.

No. 18, a Sofa Britska Spinal Carriage, with the inside Tray made to take out and in, on which an Invalid may be taken from her room to the carriage.

Nos. 10, 10, sketch of Earl's General Invalid Couch or Bed, made with or without a Convenience; it adjusts the back seat and legs to any given position by means of machinery, and is recommended by the Faculty as being the most complete Bed ever made for confirmed Invalids, or for Fractured Limbs.

No. 11 is Ward's Patent Reclining Chair, with Shifting Elbows for more easily getting on and off the Chair when the leg-rest is drawn out, as shown in the drawing.

No. 7 is an elegant Patent Recumbent Chair

Nos. 13, 13, is a Couch-Chair or Bed invented by Dr. Hester, and may be placed in any position by the Invalid without the assistance of a second person.

Nos. 2, 3, and 4, are all Self-Propelling Chairs, upon he best and most scientific principles; either may be used by a child eight years of age with perfect ease.

No. 24, Ward's Improved Child's Perambulator, with Patent Parasol. A variety always on hand.

No. 8, Ward's Improved Operating Dentist Chair, suitable for a Child or Adult.

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AND BY SPECIAL APPOINTMENT TO HER MAJESTY
AND THE ROYAL FAMILY
THE EMPRESSES OF RUSSIA & FRANCE &c. &c.

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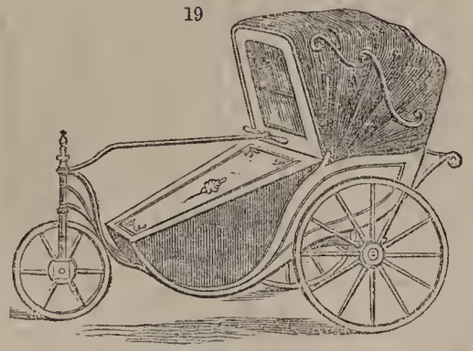
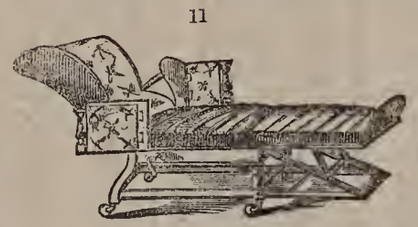
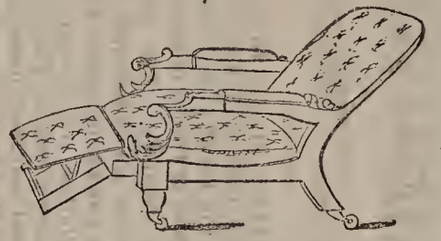
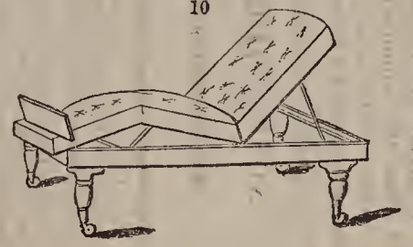
No. 14 is the simplest and best-constructed Chair for carrying Invalids up and down stairs, the lower handles for level ground, the upper ones for ascending or descending a staircase: the sketch conveys the exact idea: it is also made portable for travelling. Several other kinds are always in stock, upon various principles.

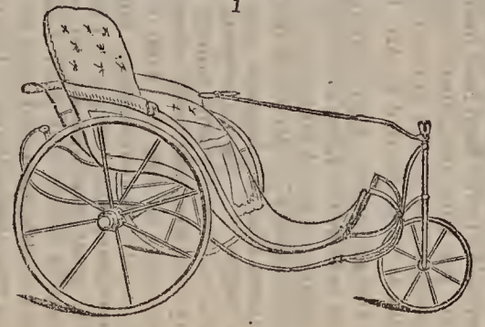
N.B.—The largest Assortment in the World of Invalid Chairs, Carriages, Crutches, and Beds always on hand, for Sale or Hire. Established more than a Century.

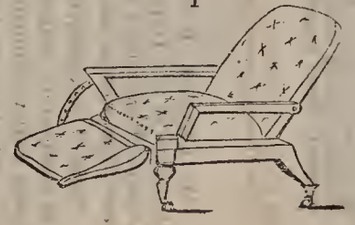












CHLORODYNE *Ver., viz.* DR. J. COLLIS BROWNE'S.

THE ORIGINAL AND ONLY GENUINE.

DR. J. COLLIS BROWNE, M.R.C.S.L. (Ex-Army Medical Staff), after many years of study and experiment, succeeded in discovering in 1846 a remedy which should possess the property of an ANODYNE, SEDATIVE, DIAPHORETIC, ANTISPASMODIC, and ASTRINGENT; for this new Remedial Agent he was obliged to find a name, and coined the appellate CHLORODYNE, as specifically indicating this remedy,—a word unheard of and unknown until 1856, when he introduced it for public use through myself, J. T. DAVENPORT, Pharmaceutist, 33, Great Russell-street, Bloomsbury-square, London, TO WHOM HE CONFIDED THE RECIPE AND ITS MODE OF MANUFACTURE, NEVER HAVING DIVULGED OR PUBLISHED THE SECRET OF ITS FORMULA.

The Medical Profession are therefore CAUTIONED to reject the announcements of certain persons, who adopt the term and affix it to spurious compounds in imitation, *speciously* pretending that they are competent and capable of preparing it properly and uniformly, well knowing they have no authority to do so, not being in possession of Dr. BROWNE'S formula.

The *only Authorised Formula is in my sole Possession*, and I give an UNQUALIFIED DENIAL that it has ever been published. The fictitious and pretended analyses of Chlorodyne only deceive, and are altogether different from Dr. Browne's invaluable preparation.

NOTE.—*One great feature of success* in employing efficient remedies depends on their *fidelity* and *genuineness*; if spurious compounds are substituted, the patient suffers and the Physician loses confidence, and it is known to many Pharmaceutists and Chemists to their cost, that the patronage of Physician and patient have been immediately withdrawn on their learning of spurious compounds having been substituted when Chlorodyne was ordered.

The extraordinary success attending the use of Chlorodyne has given rise to a series of imitations; it is, therefore, doubly incumbent on Physicians and Surgeons when prescribing this preparation to write "*Chlorodyne. Dr. J. C. B.'s.*"

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Sold in ½oz. bottles, 1s., 1oz. 1s. 6d., 2oz. 2s. 6d., 4oz. 4s. Prepared by A. P. TOWLE, Chemist, &c., Ardwick, Manchester. May be had from Barclay and Son, Farringdon-street; or through any Wholesale House.

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CONCENTRATED ALCOHOLIC SOLUTION of the ACTIVE PRINCIPLES of COAL-TAR; a new Remedy in Cutaneous Affections, &c., presenting in an elegant and effective form the several virtues of the Tar, which are held in solution by the alcohol, and thus rendered applicable to all the purposes of Hygiene, Medicine, and Natural History. As a Dressing for Putrid Sores where a disinfectant is at the same time desirable, the emulsion formed of any required strength by the addition of water, is most readily exhibited, mere agitation producing immediately perfect combination.

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ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE II.

(Continued from page 98.)

Besides the red corpuscles, there are other floating objects in the blood. These are the pale or colourless globules, the globules of lymph and chyle, the granules or molecules, and the minute particles of the molecular base of the chyle.

Pale or Colourless Globules.—These were first noticed or described clearly by Senac and Hewson. They must be of immense importance, judging from their general diffusion through the animal kingdom, from their being the first that appear in the vertebrate embryo, and from a quantity of them being ever afterwards present in the blood. (Fig. 5.) In man

Fig. 5

Fig. 5.—Red corpuscles and pale globules of blood, and lymph-globules. At *a*, four red corpuscles; *b*, five pale globules; *c*, *d*, four lymph-globules. The first pale globule, at *b*, contains spherical granules, the last is only minutely granular, and the fourth is collapsed and sending off processes; these three globules are in the natural state; but the second shows its circular nucleus exposed by the action of weak acetic acid, and the third the nucleus divided after treatment by stronger acid. Of the lymph-globules, which are from an inguinal gland, at *c*, the first two are in their natural state; and at *d*, the last two, after having been long steeped in strong acetic acid. From a child, aged 3, accidentally killed.

and other vertebrates, the pale globules are scanty in proportion to the red corpuscles; and in the human subject, as in most mammalia, are rather larger,—that is to say, about $\frac{1}{2500}$th of an inch in diameter, but are much more uniform in shape and size throughout the whole vertebrata than the red corpuscles. Thus, when I discovered the singular minuteness of the red corpuscles in the genus *Moschus*, the comparative magnitude of the pale globules in these animals became an interesting question. But they were found similar in this and other respects to the same globules in the blood of man; and so it was in the camelidæ, which have oval red corpuscles. In other mammalia, which I had found to have remarkably large red corpuscles, as the great anteater, the two-toed sloth, the capybara, there was no corresponding increase of size in the pale globules; but they were, as also in the elephant, only slightly or not at all larger than in the human subject or in the horse. We have already insisted on the great importance of the study of difference or contrast; and here, though we failed then to find it, we are now in a position to see that we did not take the right steps. The fact is, that the true objects of comparison in mammalia, as Mr. Wharton Jones has since shown, should have been the red corpuscles and the nuclei of the pale globules. Had these nuclei been measured in the numerous species of which I took so much pains to determine the size of the red corpuscles, some remarkable and instructive contrasts would probably have been discovered. Yet the great importance of this point seems not to be generally understood even yet, judging from some of our current physiological books, and especially the latest translations from the German.

The pale globules are specifically lighter than the red corpuscles, and are certainly not heavier than the fibrin. They circulate much more slowly than the red corpuscles; you may see the pale globules creeping lazily along the inner side of the minute vessels, and often suddenly detached thence and thrown into the rapid current of red corpuscles. The pale globules are prone to change their form by collapse (Fig. 5, *b*, fourth object), and to resume their regular figure afterwards, when treated with water, as discovered by Mr. Wharton Jones.

Fig. 6.

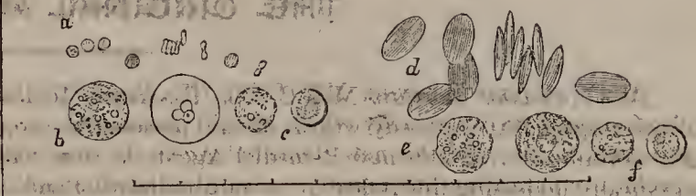

Fig. 6.—Red corpuscles and pale globules of the blood, and lymph corpuscles of *Moschus Meminna* and *Camelus Vicugna*. At *a*, red corpuscles lying flat, in rolls, and on edge of *Moschus*; *b*, an unaltered pale globule of blood, and the same with a triple nucleus exposed by the action of acetic acid; *c*, first, a lymph-globule unchanged, and, lastly, the same treated with strong acetic acid. At *d*, red corpuscles of *Vicugna*; *e*, two pale, unchanged globules of the blood; *f*, two lymph-corpuscles, the first fresh, and the last after having been steeped for hours in strong acetic acid.

They lose their shape permanently, and form a thick ropy compound, more or less transparent, when mixed with solutions of alkalies and their salts,—a property which belongs to fresh and free pale cells generally. This ropiness or inspissation, produced by sal ammoniac, was considered by Mr. Hunter and Dr. George Pearson as the criterion of pus.

Lymph Globules.—Though the common pale globule of the blood is usually described as identical with the lymph globule, there is certainly an important difference between them, as I have long since shown in the "Appendix to Gerber's Anatomy" and elsewhere. The common pale globules of the blood are larger than the proper globules of lymph or chyle; there is also a marked difference of chemical properties. You may see both kinds of globules in the blood, in the lymphatic vessels, and in the thoracic duct. In mammalia and birds the lymph globule is a nucleus, while the common pale globule of the blood is a cell containing a nucleus. You may easily make this simple experiment in any young healthy mammalian animal; take some of the fluid from a lymphatic gland or mesenteric gland, or the thymus; the corpuscles will be about $\frac{1}{1800}$th of an inch in diameter, and but very little affected when they are treated with acetic acid, even after having been steeped for several hours therein. But, on the other hand, the common pale globules of the blood will be larger, about $\frac{1}{2800}$th of an inch in diameter, and are so energetically acted on by acetic acid as to disclose their nuclei immediately, even in much diluted acid. Thus the lymph globule would require the addition of a cell-wall before it became the common and well-known pale cell of the blood; and then the nucleus must be so far different as to be divisible into two or three smaller ones by the addition of acetic acid, which the free lymph corpuscle is not. These points are illustrated in the diagrams (Figs. 5 and 6 and their explanations). In birds there is a great resemblance in chemical characters between the nuclei of the red corpuscles and the lymph globules, but with certain differences; for example, the nucleus of the red corpuscle is not so prone to change in drying as the lymph globule. Besides, the nucleus, whether exposed in recent red corpuscles by an acid, or in dry blood by the moisture of the breath, may be quickly dried, and the oblong shape of the nucleus thus perfectly preserved on the glass object-plate; while the lymph globule, after the same treatment, and even if dried simply, becomes either faint, tumid, or misshapen. Certain saline solutions too, which, in a few hours, either injure the shape of the lymph globules or render them almost invisible, do not act so remarkably on the nucleus of the red corpuscles. In some reptiles the pale globules of the blood and the lymph globules do not generally differ in structure, but are both cells containing nuclei.

The abundance of nuclei in the spleen, in the lymphatic glands, and in the thymus, as always earnestly insisted on by Hewson in connexion with his theory of central particles, is a fact frequently brought forward in some shape or other as a new discovery on the Continent, and reproduced in this country, with views in general accordance with his leading tenets; so that it were much to be desired that his important labours on this subject were better known, or if known, better appreciated and treated.

Molecules or Granules.—In the blood are certain spherical or circular particles, commonly about $\frac{1}{20000}$th of an inch in diameter, but so very unequal in size that they vary from the most minute speck visible, with the aid of the deepest object

glasses, up to $\frac{1}{8000}$th of an inch. The smaller ones exhibit the active vibratory motions described by Robert Brown. The molecules may occasionally be seen to stick to the red corpuscles, so as to give them a granular appearance, or to separate from them and swim freely in the liquor sanguinis, reminding one of the old description by the late Professor Quekett, of minute particles given out by the parent corpuscle. These appearances and an abundance of the molecules are very common in young animals during digestion. The molecules also occur in the chyle and in the lymph. They are exhibited in the diagrams (see Fig. 7, *a*), and are probably some of a fatty and others of an albuminous nature, as while some of them are soluble in acetic acid, others are only rendered plainer by it, and many of them disappear and some remain when treated with ether.

Fig. 7

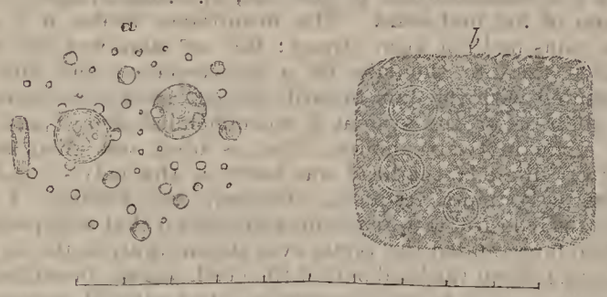

Fig. 7.—At *a*, granules and three red corpuscles of the blood; *b*, molecular base of the chyle and three chyle-globules; these globules do not differ from those of lymph in chemical and physical properties. (The minute particles forming the molecular base are difficult to engrave on wood; they are better delineated in the "App. to Gerber's Anat.," and in a note to Willis's "Tr. of Wagner's Physiology.") All the objects are from the same child as Fig. 5.

Molecular Base of the Chyle.—This is commonly confounded with the granules just described; but is really very different, as may be seen in the woodcut, Fig. 7, *a* and *b*. The particles composing the molecular base are characterised by their equality of size, minuteness, and faintness. So, it is not easy to recognise them singly in the blood, though you may easily get them in the form of a milk-like scum on the surface of the blood, either arterial or venous, taken from young animals during the height of digestion. This white matter often appears on the blood clot, before the separation of the serum, but at last is mixed with, or rises to the top of the serum, and is the cause of one kind of the so-called milky serum. You may often see it in the blood taken from healthy men and women. The milk-like opacity of the chyle of mammalia is mainly owing to this molecular base, and not to the chyle-globules or to the granules. Ever since my discovery of it, upwards of twenty years ago, I have always shown that it is of a fatty nature.

Development.—We have seen that, besides the globules of chyle or lymph, the granules, and the molecular base of the chyle, there are three sets of blood corpuscles. The first are the pale globules, which are analogous to the common or prevailing corpuscles of many invertebrata, and are present in the blood, in smaller proportion than the red corpuscles, throughout the independent existence of vertebrata. The globules of the next set in the early embryo of mammalia soon become red by colouring of the envelopes; these corpuscles, disappearing at an early period of intra-uterine life, may be called the temporary or embryonic set; they have nuclei, are analogous to the common red corpuscles of oviparous vertebrates, and are soon succeeded by the common, permanent, or perfect set, which are devoid of a nucleus, and have no analogue unless it be in the nucleus of the pale globule.

The red corpuscles of vertebrates are said to be developed from the young cells either of the germinal area or vitelline membrane, and the waste and supply of the perfect or common set from the globules of lymph and chyle. It should rather be said from the pale globules, which we have shown to differ remarkably from those of lymph and chyle. We need not dwell on the development, because we shall have to recur to the subject; and the different steps of it, as far as regards the oviparous vertebrata, have been admirably described in this theatre by my respected predecessor Mr. Paget, though we must have recourse to the researches of Mr. Wharton Jones for the best description of the phenomena in mammalia. It may suffice now to note that in this highest class the nucleus of the pale globule (Figs. 5 and 6) is shed, and becomes the permanent red corpuscle; while, on the contrary, in oviparous vertebrates the nucleus ever remains within, and the envelope becomes red and flattened. That the red corpuscles of mammalia may be nuclei of cells (Fig. 8) was certainly shown by me in the *Phil. Mag.*, 1842, and these objects have often been discovered since on the Continent, but without the least perception of their import.

Fig. 8

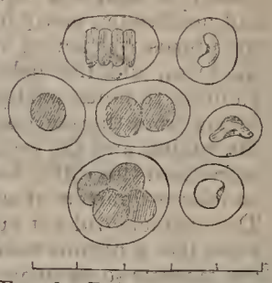

Fig. 8.—Red corpuscles of the blood as nuclei of cells.

The pale globules and their nuclei, as well as the granules, may be formed in a mere blastema, and the phenomena are connected with what has been called "nuclification," into an explanation of which important subject we cannot enter at present. In the blood, there is probably a development of pale globules from those of lymph or chyle, and, indeed, the pale globules occur sparingly in the lymph. The origin, use, and destination of the granules is an interesting question, which cannot be disregarded, as will be shown on a future occasion, in any satisfactory account of the formation and supply of the pale and red cells of the blood. The particles of the molecular base of the chyle of mammalia appear to be the first fresh organic precipitate, during the height of digestion, in that fluid.

ORIGINAL COMMUNICATIONS.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

(Continued from page 81.)

The following seven cases of Craniotomy occurred in my practice during the four last months of 1842, and the first four of 1843:—

Craniotomy.

Case 127.—On September 23, 1842, at 12.30 noon, I was sent for by the Apothecary to Mrs. B., Mile-end New Town, a patient of the Eastern Dispensary, in her second labour; the first had been very lingering, though the child was expelled naturally. She was under the care of a midwife, who had requested the Apothecary to see her, and that gentleman begged my assistance. The membranes broke on the 20th. The os uteri dilated slowly and painfully; the pains became very strong on the 21st, and continued so through the 22nd, and all night; but they had entirely ceased on my arrival. The head was partly in the pelvis, but not pressing at all on the perinæum, the base being above the pelvic brim, which did not measure more than three inches in its conjugate diameter. The woman was very much depressed, with quick pulse, and furred tongue; there was a large quantity of greenish discharge flowing from the vagina, and the bladder was greatly distended. Delivery was urgent. I had much trouble in introducing the catheter, but I drew off nearly three pints of urine. Being unwilling to perforate the head, as she had passed an infant previously, I applied the long forceps, and locked the blades, though I had great difficulty in doing so. Nevertheless, with all the exertion I dare use, I could not move the head in the least degree. I then perforated the skull, evacuated the brain, and extracted the child: it required a good deal of exertion on my part to bring the shoulders through the brim, and the operation altogether took more than an hour. Notwithstanding the uterus scarcely acted during the delivery, still it expelled the placenta into the vagina. There was no hæmorrhage, and the woman recovered well.

N.B.—As I have before mentioned, I have always used the perforator with less reluctance when I have made attempts previously to deliver by the long forceps; for I am quite sure that Nature unaided will never effect expulsion, provided I am unable to extract, when I have obtained a firm hold of the head by means of my instrument.

Craniotomy—Pelvic Tumour.

Case 128.—On December 28, 1842, at 9.30 a.m., I was requested by a Professional friend to see Mrs. M., Aldgate

High-street, in labour of her seventh child. Her labours had not been unusually hard nor long, until the last, which was very lingering, two and a-half years since ; and she said that her Medical attendant on that occasion told her she could never have another living child ; by which I inferred that the tumour I felt, was existing at that time. The membranes had not broken many hours, the os uteri was entirely dilated, the uterus was acting very strongly, the head was quite above the brim, and the pelvis was almost filled by a solid, unyielding tumour, partly ossified, which appeared at first to spring from the sacrum, but was, in fact, situated between the vagina and the rectum. The left side was encroached on more than the right, but I could not make out more than one and three-quarters of an inch of available space at any one part. The obstacle did not appear to be an enlarged ovary ; it was more like a fibrous tumour. Hoping the head would squeeze the tumour so as to protrude lower, I recommended patience, and saw her again at 11.30. There was then not the least perceptible difference in the case ; and as the head remained in the same position at 3, though the pains continued very strong ; as the vagina, especially at the back part, had become hot and tender, as the pulse had risen much in frequency, as the face had become flushed, and the woman was complaining of great suffering, after relieving the bladder of about a pint of urine, I perforated, and delivered in three-quarters of an hour, using much exertion. The placenta passed in fourteen minutes. The next day she had passed water freely ; complained of no pain anywhere, and had slept comfortably ; and she recovered without a bad symptom.

Craniotomy—Face Presentation.

Case 129.—On January 14, 1843, at 7.30 p.m., I was requested by a Medical friend to see Mrs. S., Hackney, in labour of her first child. The membranes broke at 9 a.m. ; the os uteri was perfectly dilated ; the head was in the pelvis, with the face presenting, and the chin towards the left sacro-iliac symphysis. The pains were very strong, yet the head had not moved in the least for five hours, as I was assured ; there was a large puffy swelling on the brow. The lady was very restless, and very urgent for relief ; her face was much flushed, and her pulse quick. It was evident that delivery must be speedily effected ; I therefore at once applied the forceps very efficiently, though without much hope of success ; for more than half an hour I made use of much exertion without advancing the head at all ; I then perforated through the anterior fontanelle. Although the whole of the brain was evacuated, I had much difficulty in delivery, and the extraction occupied more than half an hour. The chin passed under the pubes. The placenta was soon expelled. The next day she had passed water, and was as well as if she had gone through an ordinary labour. This lady soon afterwards came to reside in the neighbourhood of my house, and I attended her three or four times in labour, when she was not longer ill than is usual.

Craniotomy—Twins.

Case 130.—On February 2, 1843, at 2 a.m., I was called by a Professional friend to Mrs. B., in the City-road, aged 40, in her first labour. The membranes broke twenty-four hours before ; the anterior fontanelle presented ; the chin was towards the right sacro-iliac symphysis. The head had not entered the pelvis, the brim being narrower than natural. The woman was of a feeble constitution ; the pulse was 130 ; the pains had almost ceased, and she was crying out loudly for relief. I lost no time in perforating, and extracted the child in half an hour. There was a second presenting by the feet. I at once brought them down, and delivered the child easily, alive. It was much less than the first. The uterus soon expelled the placenta ; but it relaxed, and she lost nearly two pints of blood. Pressure, however, caused it to contract ; I kept my hand on it for twenty or thirty minutes, when I satisfied myself that it was permanently firm. She suffered for a few days from uterine congestion, but ultimately recovered well.

Craniotomy.

Case 131.—On March 4, 1843, at 11.30 a.m., I was sent for by a Medical friend to Mrs. S., a Jewess, in Whitechapel, aged 45. Her husband was above 70 ; they had been married more than 20 years, and she had never before been pregnant. The membranes broke on the morning of the first ; but there was very little pain till about mid-day of the third. The head was quite above the brim of the pelvis, which did not measure more than three inches and a-quarter in its conjugate diameter. The os uteri was not more dilated than the size of a crown-piece, but soft ; the vagina and perineum were very rigid. Her strength was tolerably good ; but she was very irritable and turbulent. As the uterus was acting strongly, I recommended that no means for delivery should be then taken, and saw her again in six hours. The pulse had then risen to 130 ; the pains had been very powerful and forcing all day ; but the head had not advanced perceptibly, indeed it had become quite locked. The os uteri, however, was rather more dilated. I perforated, and with much exertion, delivered in three-quarters of an hour. The placenta passed without trouble. My friend had drawn off the urine twice in the course of the day, by a flexible catheter, not being able to introduce a silver one. She recovered quite well.

Craniotomy—Face Presentation.

Case 132.—On March 27, 1843, at 11 p.m., I was summoned by a Professional friend to Mrs. D., Spitalfields, aged 37, in labour of her first child. The membranes broke at 3 a.m. The pains had not been strong ; the os uteri was not more dilated than to the size of a crown-piece ; and the face presented with the chin towards the left groin. As there was no distress in the system I recommended delay ; and saw her again in twelve hours. The os uteri was then almost entirely dilated ; the head was lower in the pelvis ; and the pains were more frequent, stronger, and forcing. I now thought it desirable to give some assistance if that were possible. I therefore applied the vectis over the occiput, in the hope of bringing down the hind part of the head, and so converting the case into one of vertex presentation ; but with all the power I dare use I made no impression whatever on the head, nor did I alter its position in the least. I therefore left the case for six hours longer. I then found that the head had advanced considerably ; the pains had continued strong till about two hours ago, but now the uterus was not acting at all. The pulse had risen much, and her strength had given way greatly, since I last saw her. I therefore tried the vectis again, and, although I obtained a good purchase, I had no more success than before ; so I perforated the forehead, in which I found more difficulty than I expected, owing to the strength of ossification which the bones possessed, and delivered in half an hour. The placenta passed down immediately, and she recovered without a bad symptom.

Craniotomy—Epilepsy.

Case 133.—On April 16, 1843, I was sent for to Mrs. J., a lady whom I was engaged to attend, in Southwark, in labour of her first child. She was about 23 years old, and had been subject to epileptic fits for six or seven years before her marriage ; during the last three or four years she had been under my care ; they were then recurring about every eight or nine months. I was consulted about the propriety of her marrying, and I gave my sanction, partly because she had neither father nor mother, and for other family reasons, but principally because I hoped matrimony might prove beneficial, provided she became pregnant. In this, however, I was sadly mistaken, for when she had conceived the paroxysms recurred every three months. The same occurred also in her subsequent two pregnancies ;—the fits were much more frequent than when she was not gravid. When I arrived I found she had been in some pain for two or three days. The os uteri was high, thin, and not dilated more than the size of a sixpence. The last lumbar vertebra and promontory of the sacrum dipped much too forward over the entrance to the pelvis, so as to diminish the brim to about three inches in its conjugate diameter. When I saw her again at noon, the os uteri was in the same condition, but the membranes had broken during the interval of my two visits. At twelve noon of the 17th the os uteri was the size of a crown, and the head was bearing strongly against it. From this time till 8 p.m. the pains were much more frequent and stronger ; yet it remained exactly in the same condition as to development, but it gradually became thicker and hot ; the vagina became heated also ; the pulse mounted to 130 in the minute ; there had been no sleep for two nights and days ; there was great general uneasiness ; and a constant, dull heavy pain came on above the pubes, so as to lead me to believe the uterus had become bruised. The head still remained quite above the brim, notwithstanding the powerful contractions of the uterus, the forehead looking towards the right groin. There had been no alteration in the position of the head since 2 a.m., but the scalp had become tumid and puffy. Feeling assured that delivery ought not to be delayed,

I perforated and extracted in three-quarters of an hour, being obliged to use very great exertion. The child was larger than ordinary. The placenta passed without assistance. There had been no symptoms of head affection all day, till about half an hour before her delivery, when she began to talk incoherently; but an hour after I had left her, apparently comfortable, she was attacked with an epileptic paroxysm, which lasted half an hour; and she was longer in recovering her consciousness than usual. She had just been regretting the loss of her infant, when it came on; and I thought it was produced by mental emotion. She recovered from her confinement very well; but the epileptic seizures continued about every eight or nine months, when not pregnant, every two or three when in the family-way. She has only had two children since, on both of which occasions I brought on premature labour at about eight months; both those children were born alive, and are now fine youths. In neither of these labours was there any return of fits. About the year 1850 she placed herself under an Homœopathic Practitioner, and I did not see her again professionally until last year, when she returned to my care, and is under me still. Nothing that has ever been tried has lessened the frequency or strength of the fits; but in the intervals she enjoys tolerably good health. She is generally attacked when in bed and asleep.

8, Portman-square.

(To be continued.)

HINTS FOR CERTIFYING IN CASES OF LUNACY.

By J. STEVENSON BUSHNAN, M.D.

Fellow of the Royal College of Physicians of Edinburgh; late Senior Physician to the Metropolitan Free Hospital; Resident Proprietor of Laversteck House Asylum, near Salisbury, Wilts.

(Continued from page 106.)

Partial Insanity. — Under this head we arrange, — 1. *Melancholia;* 2. *Monomania;* and 3, *Moral Insanity.*

1. *Melancholia.*—Melancholia, in its older signification, is partial madness. It may be characterised either by delusions of a depressing kind, or it may be wholly free from delusions, it which case it coincides with moral insanity.

With respect to the delusional form it will not be necessary to dwell on its several characters, further than to suggest that the certifier should try to remember on each occasion such instances as have before occurred to him illustrative of a melancholy character, an exalted character, or a destructive character in delusions, in order the more easily to detect the delusion which may be present. Care should be taken to make use of the words "hallucination, illusion, delusion" with some degree of exactness. The advice which has been wisely given not to attempt in courts of justice distinctions between words in popular use, such as illusion and delusion, does not prevent the Medical Practitioner from habituating himself to a correct use of such terms in his certificate of insanity. Hallucination, then, if taken in its classical sense, is a state of passive error; as, for example, when a man thinks he sees something before his eyes when there is really nothing present—in the same manner when he thinks he feels something near him which has no existence. If he is unable, on being appealed to, to correct this or that hallucination, there is a fact indicative of insanity obtained. When, however, a person asserts that he is perpetually haunted by a particular smell, taste, or sound, this may not be a hallucination, for there may be in either of these cases an object of sensation owing to derangement of the organ of sense. It would be going too far to say that hallucinations never take place in reference to the senses of smell, taste, and hearing; but apparent hallucination connected with these three senses must be very carefully considered. Hypochondriasis is a fertile source of apparent hallucination originating in these three senses.

Illusion and delusion are classically regarded as synonymous, each signifying active deception. If an object before a man's eyes appear to him in a totally different form from its real aspect, the actual sensation is true, but his perception is false—that is, his mind supplies characters which do not exist in the sensation. His mind actively changes the proper effect of the sensation. If this be a proper example of an illusion as distinguished from a delusion, it must be merely because it has a reference to sense. Any such illusion, if persevered in notwithstanding remonstrance, is a fact denoting insanity. The term delusion may be very properly confined to ideas wrongly formed independently of the senses; as, for example, when a man believes himself to be a king, a prophet, a wolf, a dog, a teapot.

Next in order is melancholia without delusion. It will manifestly be often difficult to state sufficient facts in cases of this kind to afford at once evidence of insanity. To reasonable people, however, it will afford an important fact simply to put down that the case is one of melancholia in the sense of a malady sustained by a passion of a sad, debilitating, or oppressive character, without delusion or delirium, as is often the case in that form of insanity. It may even afford a fact in favour of the presence of melancholia as a form of insanity, that after some sudden and violent sorrow the patient has continued plunged in profound sadness, incapable of exertion, and manifesting not the slightest interest in any of the ordinary concerns of life. Again, that the patient being naturally of a melancholic turn of mind, has during a long period been gradually sinking into a state of extreme indolence and indifference to everything in which an interest was formerly taken; further, that this state of mind is a constant source of unhappiness and of self-upbraiding to the patient.

In every case of melancholia a minute inquiry as to the existence of a suicidal tendency is to be set on foot. The sources of depression are to be sought for among the feelings, emotions, passions.

2. *Monomania.*—Is a term at present in frequent use to designate partial insanity. In former times melancholia included all the forms of partial mental derangement, whether that derangement showed a depression of mind with low spirits, or an exaltation of mind with joyous excitement. It may be a question whether monomania be not a superfluous word, since melancholia may be so defined as to constitute partial insanity, whether the mental condition be depressed and full of sad emotions, or elevated and characterised by an exhilaration of spirits. Since, however, it is natural to mankind to draw a marked distinction between these two states, it is perhaps unavoidable to consent to the multiplication of terms, and to regard melancholia as partial insanity with a depressed state of mind, and monomania as partial insanity without any marked sadness in the train of thought. Monomania then may be described as a partial madness characterised by a few fixed erroneous ideas,—that is, alienation of mind turning on a small number of fixed ideas, while there is no particular concomitant state of mental depression. It is a mistake, however, to represent monomania as turning solely on one idea—the distinction between mania and monomania is, that in mania of the most perfect character the ideas are many, insulated, and fugitive; while in monomania the ideas are fixed within a limited range, yet by no means confined to one exclusive topic.

3. *Moral Insanity.*—The term "moral insanity" was introduced to denote insanity in which no delusion exists. It is doubtful if there really be any form of insanity in which some kind of delusion does not at last arise. But it is certain that there are many cases of alienation in which the moral part of man's nature is more disordered than its intellectual part. Thus the natural affections and the moral sentiments become perverted without any discoverable hallucinations; and the habits, propensities, feelings, emotions, and passions become changed from their sane character without the presence at least of prominent delusion.

Moral insanity, with propensities such as to homicide, suicide, stealing, may often be detected in its previous progress by cross-examining those who have long held familiar intercourse with the patient. When there is extravagance of conduct, there is seldom much difficulty as to facts.

To moral insanity erotomania belongs. Some authors understand this term as including insanity, accompanied with disordered imagination producing merely amatory delusions, and what has been termed aidoiomania, or the very different states known as nymphomania and satyriasis. In neither case can the simple statement of the existence of one of the propensities concerned afford a sufficient fact for the purpose under consideration. If possible some deviation from sane conduct must be sought after, which, in the extreme instances, it is generally not difficult to discover. In the more moderate cases, however, the difficulty is often great, particularly when the disease is confined to the head, and has no connexion with local disease of the reproductive organs. The two forms of the disease are unquestionably sometimes conjoined, nevertheless erotomania seems to be the more appropriate term for

that form of disease which has its seat in the head, rather than that it should be called erotomania proper, while erotomania as a genus should include aidoiomania. Little further hint can be given in respect to those two forms of disease than to direct attention to the possible prevalence in the thoughts of the patient of the ideas which their presence suggests.

Kleptomania belongs also to moral insanity. Here the fact of the existence of the propensity can hardly escape notice; but there is often extreme difficulty in establishing the connexion between the propensity and the existence of insanity. When a person in comfortable circumstances steals trifling articles, not being curiosities, such as specimens of vertu or objects of natural history, there is a *primâ facie* evidence of the presence of kleptomania.

Pyromania is also a form of moral insanity. There appears to be no reason to doubt that pyromania is sometimes a mere temporary propensity in girls connected with some disordered state of the reproductive organs. But if no such disorder exist, and a determined propensity to serious fire-raising be manifested, that fact should suffice as an indication of insanity.

Oinomania comes also under the head of moral insanity. It is puerile, though a sentiment often heard in high places, to say that delirium tremens is not a form of insanity. When it exists, whatever may have been the mode in which it was brought on, there is undoubtedly a form of insanity present. In the excellent work (Bucknill and Tuke, "Psychological Medicine"), oinomania is described under three forms:—The acute; the periodic; and the chronic. The acute may occur from any extremely debilitating cause; the periodic returns at intervals; the chronic is the state into which the periodic most commonly passes. When a man, as the effect of drinking, sees visions which he takes for realities, while he imagines the surrounding objects variously distorted, he is for the time unquestionably mad, though it be quite true that with proper management this madness will generally pass away. Yet this is not the state to which the term oinomania properly belongs. The real madness is the propensity to indulge in alcoholic drinks—uncontrollable, irresistible, demanding the sacrifice of everything that is dear to the individual; and by the gratification of which the delusions, before referred to, are brought on.

Congenital Idioey.—If the case calling for consideration seems to fall under idiocy, that is idiocy proper, or congenital idiocy, a principal fact will commonly be the state of the skull, as unusually small or exhibiting distinct malformation; further, the patient may not be able to count twenty, or to tell who was his father, or his mother, or how old he is, or what year of our Lord it is, or to repeat the days of the week, or answer any similar simple questions; there is thence obtained from each failure a fact indicative of idiocy observed by one's self. The following account of the forms of idiocy will be of further service for the same purpose:—1. There are idiots who have no mental existence, who cannot attend to any of their wants, and would certainly die if we did not take care of them. 2. There are idiots who have some sensations, shun the cold, and give notice that they require food, but do not attach themselves to anything, and would never go in search of victuals, all their actions being without reflection or object. 3. There are idiots who are conscious of some external impressions—who recognise the persons and objects surrounding them—and are susceptible of attachment to those who do them good; they employ signs more or less expressive, and make known their wants either by gestures or cries, or even by words badly articulated.

As to bodily defects in idiots, the forehead is most commonly small, contracted laterally and depressed above; the eyes are not symmetrically placed, so that many idiots have the appearance of squinting; some are blind in one eye; not a few in both eyes. The mouth is very often gaping, so that the saliva drops down on the chin and clothes; the lips are in many instances thick and pendulous, while the gums are unhealthy and the teeth soon decay. Idiots are often lame; there is some malformation in their legs, and arms, and feet and hands; have a difficulty, or awkwardness in walking; they are apt to lean forward, while one side is farther advanced than the other. When this deviation of the ordinary mode of walking is observed in young children, it is a very decided sign that the infant is an idiot. Some idiots are very deficient in sensibility to strong impressions, so that they hardly suffer from pain. Many exhibit perpetual movements backwards, forwards, sidewise. Some are deaf; others both deaf and dumb,—the deafness is at times only apparent, being from want of attention. Some are always laughing; others always weeping; while a few are inclined to mischief.

Congenital Imbecility.—There is no exact line of distinction between idiocy and congenital imbecility. Neither is there any well-marked distinction between imbecility and an integrity of the mental faculties. No case should be referred to imbecility in which there is any considerable capability of education, while perhaps the best idea that can be given of congenital imbecility is that in such cases the capability of education is below the average in mankind generally. It is in the faculties of the intellect that imbecility chiefly exhibits itself; for in such persons the affections and passions are often strong and even at times uncontrollable. Such persons are liable to be enticed by the designing into a participation in criminal acts. It has been laid down that the consciousness of deficiency in intellectual gifts should exempt a person from the imputation of unsoundness of mind. This observation has, indeed, some foundation; but it would be unsafe to act on it without much reserve and circumspection.

General Paralysis of the Insane.—Two varieties of paralysis may be distinguished in the state of insanity, namely, chronic general paralysis and acute paralysis. Chronic general paralysis is much more frequent in males than in females. It generally, yet not exclusively, occurs in that form of insanity in which ideas of wealth and grandeur predominate. It may last from a few months to several years. It very commonly commences with a slight defect of speech, followed by muscular inability of the lower extremities, and this by degrees spreads over the whole body. The prognosis is very unfavourable.

Acute paralysis of the insane occurs in the progress of insanity more particularly in the state of dementia. It occurs equally in the feeble and emaciated as in the strong and plethoric. The attack is often preceded for a few days by silence and a degree of stupor. When the attack occurs there is generally complete insensibility and loss of motion. If the patient does not die soon after the attack, dementia takes place, if it did not exist before; and there is a partial loss of motion.

Delirium Tremens.—Under this head little need be added to what was said under the head Oinomania. When delirium tremens is completety formed, there is delusion of some kind present, or rather there is a series of delusions, very often, however, being of a connected character. They often very much resemble dreams, with this difference, that when the patient is broad awake and reasoned with, the belief in their reality is preserved and acted on, unless the patient is restrained. In general there is complete watchfulness. A paroxysm of drunken violence kept up by a continuance in drinking may last for several days without either delusions or defect of sleep. In this state a man may beat his family, turn his wife and children out of doors, break furniture, and do many other mad-like acts, yet all the while conduct his business without mistake. At last he becomes sick at stomach, vomits violently, and quickly recovers. It becomes a question of a serious kind whether such symptoms would warrant detention. But every such case must be judged of on its own merits.

Epilepsy, or Chorea, accompanied with Mental Aberration, Permanent or Temporary.—Epilepsy and chorea have a close connection with insanity. Either may precede the occurrence of insanity, or may arise in the progress of the disease. Chorea in particular connects itself with idiocy. There is a tendency in both, when of long continuance and great severity, to pass into dementia.

With respect to epilepsy, it sometimes happens that there is a species of delirium both before and after the convulsive paroxysm. Hence it would be wrong to pronounce an epileptic, known to be in general sane, to be deranged merely because signs of mental aberration had occurred for a short time about the period of the ordinary paroxysm.

When epilepsy occurs in conjunction with mania, the excitement is apt to be of a very violent description.

When epilepsy arises in the course of insanity, there is less tendency to the form of dementia than when the epilepsy precedes the onset of mental derangement.

Conclusion.—To sum up these short hints, it may be proper to add some suggestions as to the modes of drawing from the alleged lunatic such sentiments as may suffice for satisfactory proofs of insanity. Sometimes a clue can be obtained from his relatives as to the particular delusion under which he

labours. But if this clue be made use of at once, and the subject abruptly introduced, the lunatic is generally cunning enough to avoid all reference to the topic concerned. It may be remarked, however, that if the subject be pursued and often presented to him, he becomes very desirous to change it, or to shorten theinterview. Hence if he can be engaged in an animated discourse respecting some subject wholly opposite to that on which his delusions turn, he may sometimes be drawn unawares towards his delusive ideas, when the proofs of madness may be in a moment obtained. Before going to an interview with a person suspected of lunacy, it should be ascertained, if possible, to what extent he can conceal his actual state. In some no skill is necessary to bring out the most unequivocal proofs of the disorder present; in others, the most practised Physician may be defeated for a time. It might seem that the readiest mode of bringing out a man's delusions is to converse minutely on his own domestic affairs, particularly when his disease turns on some supposed great change of fortune; yet singular it is that he is often prepared to give the most exact account of their actual state even when he believes without foundation that his whole fortune is lost, or that it is increased to an incredible amount. Manifestly, the most elegible and promising plan in difficult cases is to enter on what may be made to seem a chance conversation on the topics of the day, or to debate with the patient some question that he may be led to think has no relation to the purpose the Medical man has in view. In a protracted conversation of this kind it will be surprising if a maniac be not thrown off his guard so as to betray decided symptoms of his disorder; or if a monomaniac be not led to connect some part of the discourse with the particular vagaries on which his aberration turns. The formal introduction of a Medical man to the patient with the known purpose of discovering him to be insane, constitutes one of the great difficulties of the case, as putting the patient at once on his guard. Were it possible for the Medical man to meet the patient as it were by accident, and without his real character or purpose being suspected, there would be seldom any difficulty.

Lastly, having printed this paper separately for private circulation, it will afford me much pleasure to send a copy to any Professional man who will do me the favour to apply to me.

Laverstock House Asylum, near Salisbury, Wilts.

DELIRIUM TREMENS.

DETAILED MEDICAL REPORT OF THE CASE OF PRIVATE J. G., 34TH REGIMENT, ADMITTED JANUARY 4, DISCHARGED JANUARY 18, 1861.

By Mr. FENTON MANIFOLD.

An Englishman, a bandsman, aged 27, stout and muscular, twelve years' service, and lately reduced to the ranks for intemperance, was brought to the Hospital on January 4, 1861, in a state of great nervous depression and mental anxiety after a series of debauches during Christmas week, ending in a convulsive fit, in which condition he was conveyed to the Hospital from his barrack-room. He was immediately placed in bed, in a ward by himself, in charge of a European orderly, and directed the following draught,—℞. Carb. ammoniæ gr.v., mist. camphoræ ʒj., liquor opii sed. mxx.; fiat haustus s.s. et rep. tertiis horis. He was also ordered beef-tea, and the head to be kept cool.

January 5.—Has had no sleep. Tremens well markod. Endeavours to get out of bed, and is with difficulty prevented from doing so. To have a calomel purge, followed by a cathartic draught combined with antimony, and one grain of morphia at bed-time; also, beef-tea and beer.

Third day.—Very restless and delirous, talks wildly and incoherently, and has had no sleep since his admission into the Hospital. Morphia combined with antimony repeated every third hour without producing the desired effect.

Fourth day.—Much worse in every respect; wandering and delirious, although conscious when spoken to sharply. To have tinct. digitalis ʒiij. immediately, and the following mixture:—℞. Tinct. digitalis ʒj., tinct. lavand. co. ʒss., mist. camphoræ ad ʒviij.; fiat haustus. Dose ʒi. omni secund. horâ.

Fifth day.—Much better this morning, after a refreshing sleep. To continue the mixture.

Seventh day.—Convalescent. From this date he improved gradually, although weak, and was discharged to duty on January 18, 1861.

Remarks.—The beneficial effects of the digitalis were well marked in this case, the first dose acting as a powerful sedative, allaying irritation, and producing sleep. I would have no hesitation, in a similar case to the above, giving half-ounce doses of the tincture, to be repeated, if requisite, every second or third hour; but this will seldom be found necessary.

In a case in which I was lately consulted by Dr. Barn, Royal Artillery, in which there was well-marked insomnolence, jactitation, and delirium, and where both morphia and hyoscyamus have been administered in vain in large doses, the second dose of tincture of digitalis acted like a charm.

Leetopore, Oude.

CASE OF OBLIQUE INGUINAL HERNIA.

WUTZER'S OPERATION.—SUGGESTIONS FOR A NEW METHOD OF CURE.

By GEORGE B. MOORE, M.D., Edin. etc., Surgeon, R.N.

B. B., aged 42, ship's cook, of rather spare frame, pallid complexion, and loose fibre, presented himself on May 9, 1862, having fallen down the fore engine-room hatch, thereby causing an increased protrusion of an old right inguinal hernia, and other slight bruises. The protruding bowel was easily reduced, and a new truss fitted. The hernia was originally caused by a fall on board Her Majesty's ship *Gorgon*, October 3, 1858. He was admitted into Guy's Hospital, under the care of Mr. Bryant, March 30, 1859, and was operated on by that Surgeon for the "radical cure." From the clear and minute description the man gives of the operation, I have not the least doubt Mr. Bryant adopted Wutzer's method, or some slight modification of it. He was considerably benefited for some time afterwards, though the hernial tumour still remained very apparent when he assumed the upright position. The protrusion gradually returned to its original dimensions, and when set at liberty would descend far down into the scrotum. He has but occasionally worn a truss, as it proved extremely irksome to him.

The abdominal muscles are thin, and the integumentary coverings loose, with but little fat deposit. The hernia has now descended nearly to the lowest part of the scrotum, is quite flaccid, and easily reduced into the abdominal cavity. The internal inguinal ring is almost opposite the external, and both are much dilated. No trace remains of invaginated integument in the rings, or what remains of the inguinal canal. There is a small scar on the corresponding side of the scrotum.

This case is interesting, in that it affords a very fair example of the amount and durability of the benefit we may expect to accrue from the most ingenious operation that has hitherto been devised for the radical cure of hernia. Mr. Bryant's name is an ample guarantee for the skilful performanee of the operation, yet we find that the slender adhesions formed between the neck of the sac and the invaginated integument, offered but a feeble resistance to the protruding bowel from the first, and in no long time altogether gave way. Judging from the state of the inguinal tissues mentioned above, I am of opinion that but little hope can be entertained of materially benefiting the patient by a repetition of Wutzer's operation, as it seems to me not to fulfil all the conditions necessary to a radical cure in this case; I am, therefore, induced humbly to submit the following method:—

Clear the patient's bowels; administer an opiate; place him in bed, head, shoulders, and knees somewhat raised. Chloroform. Having carefully reduced the hernia, and well smeared the inguinal integument over with simple cerate, make a linear eschar with a firing-iron, similar to that used by farriers, from about two inches above to one inch below Poupart's ligament, and at right angles with it, passing over the inner margin of the external ring. Any number of similar eschars the operator may deem necessary may be formed parallel to the first over the external ring, canal, and internal ring. The healing process will not long be delayed, and the result will be a like number of artificial, unyielding, intercolumnar bands, capable of offering a permanent barrier to the protrusion of a hernia. Care must, of course be taken, in making the eschars not to burn too deeply in passing over the spermatic cord, and it might be well to run somewhat

lightly over the rings and canal, dipping deeper towards the extremities of the eschars, so as to ensure attachment of the ensuing bands at these points to the deeper tissues. The requisite number of escharotic lines having been formed, it only remains to treat the case as an ordinary burn, keeping the patient in the recumbent posture, and, when practicable, supporting the part by means of a soft pad.

This method, if efficiently carried out in practice, will, I think, be found quite calculated to fulfil all the indications for the radical cure of most varieties of hernia; and I am further of opinion that it is peculiarly adapted for the cure of hernia in its first stage of protrusion, and for strengthening weak groins.

Brazil.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

ABSTRACT OF LECTURES ON PATHOLOGY.

By SAMUEL WILKS, M.D., Assistant-Physician to the Hospital.

LECTURE II.—ON TUMOURS OR NEW GROWTHS.

(Continued from page 85.)

In some other parts of the body we find also the new products modified according to the character of the tissue whence they proceed, and thus, on epithelial surfaces, epithelial growths may arise, whose peculiarities I will detail to you.

So, in the uterus and prostate, the simple muscular tissues are reproduced, and the so-called fibrous tumour is really a muscular one. As regards melanosis, I may say that every fresh example of the disease which I witness confirms the opinion which I have always held,—that this is a disease which always takes its rise in a part of the body where pigment previously existed,—and thus we find it springing up on a mole or mothers' mark; at other times having its origin in the choroid coat of the eye. In most of the cases which I have seen, this has clearly been the case, and the disease has been simply a mixture of pigment with the constituents of tumours already mentioned. Thus, an innocent fibrous tumour may contain pigment; a recurrent fibroid may be also melanotic; of this I have a capital example where a tumour sprung up on a mole and returned several times after removal. In most cases it is associated with a cell-growth or cancer, and thus the melanosis is rather a melanoid cancer,—a mixture of cells and pigment. The pigment is generally composed of roundish brown bodies of about the size of the cancer cells, and is in itself a substance of easy diffusion through the body; so that I suppose there are few diseases which affect so many parts of the body or are so malignant as melanosis. Whether a tumour may consist wholly of pigment and spread through the body simply as pigment, is a case which I much wish to witness. This would be an instance of simple melanosis, and one which I see no reason might not occur.

[Dr. Wilks then alluded to other tumours, as the sebaceous, and spoke of the remarkable fact that we find the arachnoid affected by the same morbid growths as occur on the skin; as cholesteatoma, which is of the same composition as the sebaceous tumour; and villous and epithelial growths.

Warty and villous growths were to be regarded as having no necessary distinctive qualities of their own, the characters which these names imply being non-essential and dependent only on the fact of their growing on a free surface. Thus, a warty exterior may exist on a cancerous tumour as well as indicate an altogether innocent structure; so also a villous growth, formerly called cancer, and now styled innocent, may be either one or the other, according to the basis from which it springs. Thus in the bladder we sometimes meet with small vascular tufts growing from the mucous membrane, leading to death by hæmorrhage, and, on the other hand, similar villi constituting the surface of a cancer. In the stomach and intestines such villous cancers were exhibited. The so-called cauliflower excrescence of the uterus was a villous cancer.

Colloid was next described, and this, Dr. Wilks said, could not be styled malignant, in the ordinary signification of the term, since the disease was generally local and confined to the abdomen, and did not lead to death by a secondary deposit in the lungs and other organs.

He then described the various kind of cysts which occur in different parts of the body. They were often met with in connexion with tumours as cysto-sarcoma, cysto-carcinoma, cysto-myeloid. They also arise as dilatation of the original follicles and ducts of organs, or as altogether new formations.

The formation by simple distension is seen in sebaceous cysts, also in mucous cysts, as ranula, etc. Such mucous cysts he had occasionally met with also in the œsophagus and stomach. In organs with ducts, cysts might be formed by their dilatation as in the liver or kidney, but compound cystic structures were probably nearly always distinct formations.

Specimens of liver were shown presenting cysts, and also of the spleen, an organ where no ducts exist. As regarded the kidney, he believed that the large simple cysts seen on the surface often resulted from the obstruction of a duct; also that the microscopic cysts which existed in the atrophied organ, and about which opinions so differed, might very probably originate in the withering of the tubules, as Dr. Johnson thought, but that the compound cystic kidneys which, on section, resembled a honeycomb, he considered commenced as altogether new growths,—if to these be added the case of hydronephrosis, where the whole kidney is converted into one large bag of fluid by dilatation of the pelvis, we must recognise four kinds of cystic kidneys. In the ovary there was little doubt that the two theories of formation of cysts were correct. There were numerous specimens showing the gradual distension of the Graafian vesicles, and at the same time those instances of multilocular growths where a section presented a honeycomb appearance, and in which the cysts had evidently sprung up or grown *de novo* in the organ.

Dr. Wilks then spoke of the growth of the villi of chorion and choroid plexus into cysts, and the pedunculated cysts of the epidydimis and broad ligaments, resulting from the distension of the remnant ducts of the Wolfian body.]

I believe that the subject of these new growths and deposits requires the utmost generality of treatment in order to arrive at a correct conclusion upon it; and I think also that much error results from distinct observations by different persons on isolated parts of the body, and thus cancer and innocent growths are not only regarded independently, but by different persons as they affect the external surface or the internal organs. You know my adversity to specialism, and I carry this to the extent of declaring that the division of our art into Medicine and Surgery is attended with many evils, and especially to the right understanding of such pathological subjects as we are considering. For instance, many of the tumours or new growths of which we have spoken are generally treated of by those who make no allusion to their presence in the interior of the body, and in consequence a wrong pathology and a wrong nomenclature results. The same occurs in many other diseases, as, for example, pyæmia, which, because so long known in connexion with external wounds or injuries, has been treated of exclusively by Surgeons; but the very worst forms of the disease fall into the hands of the Physician, and thus it generally fails to be treated in the comprehensive manner it requires. Such an artificial division has been perpetuated by a more remarkable arrangement still, which obtains in some places, that when all treatment is past and the body lies dead on the anatomist's table, it should then be regarded Medically or Surgically, and so demand either this or that observer to investigate the morbid changes which have occurred,—a system which would, for example, require the attention of the Physician-Pathologist to the case of an idiopathic nephritis, and the Surgeon-Pathologist to the suppurative nephritis; or, of the former to the lobar pneumonia, and the latter to a lobular pneumonia.

The mention of pyæmia obliges me to compare this affection with some of those malignant diseases of which we have been speaking, and now for a moment think of it in connexion with

cancer, although these are two affections which we never are in the habit of contemplating together. In both of them you first discover a local swelling composed of cells, and subsequently you notice similar swellings, having the same composition, spring up in other parts of the body. In what do the two cases differ? you may say that the one tumour is organised or vascular, and the other not; that the one is composed of living structures and the other of dead material; but such reasoning is worth little when we know that the seeds of one equally with the other are taken up by the blood and propagated. You would probably, however, say, according to the prevailing theory, that the one, cancerous disease, arises from a constitutional cause, from some error or vice in the system, whilst the other, pyæmia, springs up under our eye from a known cause, and in a previously healthy person. This, you will say, is a striking difference, but it is in order to show you that the distinction is for the most part assumed that I have brought the two together, side by side; for were I to propose an opposite theory of cancer, you would find it difficult to refute it. Were I to say, for instance, that the cells of cancer spring up solely under a local influence as an abscess, but from their very nature the system soon becomes contaminated, and that if the primary mischief were removed at a very early period no injurious effects would follow, and also that the very speedy contamination of the system has been used as an argument in favour of the constitutional vice,—I say if I state these as propositions, though so contrary to the prevailing idea, you would find a great difficulty in answering them, so undetermined is this most important question. Much more difficult would you find it if I told you of the numbers of cases where cancer has been sufficient to kill, and yet quite local, and draw your attention to the fact, that when on the exterior of the body, and removed, it springs up again in the same part, or that the structures next involved are the neighbouring glands,—a fact sufficient in itself to prove the carrying process of the cancerous elements, were it not supported by a consideration of other examples; for instance, where a general melanosis has had its origin in a pigmentary mole, an osteoid cancer in a tumour springing from a bone, purulent deposits in various parts, commencing as a local affection, all facts proving incontestably to my mind the propagation of disease from a local source. Yet there is a theory held by many that this doctrine is not true, that pyæmia is constitutional because no pus elements are found in the blood; the same with cancer, for a similar reason; but let those cases be taken where bone or pigment constitute an element of the disease, and then we must of necessity fall back on the theory of propagation by the blood. Because no foreign elements have yet been discovered in the circulating fluid, the doctrine can none the less be gainsayed. If a soft cancer be found existing in a part of the body, and soon afterwards other and similar ones spring up; if a hard cancer follow the same path; if an abscess occur, followed by others; if a tumour grow near bone, be ossified, and bony tumours arise elsewhere; if a growth contain pigment because arising on a mole, and melanotic tumours be presently observed throughout the system, or fibrinous deposits be associated with an endocarditis, we cannot rid ourselves of the firm belief that the system has been contaminated from a local source. The case might be strengthened by the example of melanæmia, where the pigment of the blood supposed to originate in the spleen is carried to every organ of the body; also, by the artificial discoloration of the body by nitrate of silver, which is clearly carried into the smaller vessels of the organs; although I am not aware that even in this case the metal has been discovered circulating in the blood.

This idea of the purely local origin has, of course, its difficulties of corroboration, or the opposite theory would never have been held; the difficulty, however, exists solely with the simple cell-growths, for the case of a bony tumour springing from bone, or a melanotic from pigment, is clear. In the case of simple cell-structures, I say, it is difficult to know why they should differ, unless a constitutional cause should be present; why, for instance, according to Virchow's theory, the same cells of his connective tissue (should there, indeed, be such) should in one case produce a pus-cell, in another case a tubercle, and in a third a cancer-cell. This is certainly difficult of explanation; and yet, putting aside Virchow, it may be that these substances have a different structural element for their original seat; and although I cannot prove this, I think we know enough to show that, in spite of constitutional causes, these materials cannot spring up indiscriminately in the manner supposed. We do not, for example, witness a tuberculous tumour springing up in the skin in the same manner as a cancer; and knowing how loath the body of the uterus is to be affected by this same disease, we are not surprised to witness with diffused cancer in other parts fibrous tumours of this organ. I have not time to mention several other instances of the kind, but just allude to the doubts in my own mind as to the generally-accepted belief of the original formation of cell-growth in any part of the body, believing as I do that the elements are first carried there. You will feel surprise when I hesitate to declare that suppuration may occur in any part of the body without the elements or seeds of pus having been first transported there; and if this be true of pus, much more is it of cancer. You will remember that abscesses are found in all parts or organs of the body; but consider how seldom are these idiopathic. In the case of the brain, it has already been affirmed by Dr. Gull, in a paper by him in the "Guy's Reports," that idiopathic abscess results only from without; but if discovered isolated or in the interior of the brain, it is of a pyæmic character, or secondary to abscess elsewhere. This statement my own experience confirms; but I would not confine it to the brain, but make it comprehend the other viscera. As regards the lung, it is no new fact that simple pneumonia does not end in abscess; indeed, you know from every-day experience that the discovery of abscesses in the lung causes us to look elsewhere for the source of the seeds of the disease. In the kidney, too, we notice every day that a suppuration of the organ implies mischief in the bladder; whereas the idiopathic affections known as Bright's disease never end in this process. I think I may state positively, also, that I have never witnessed an idiopathic abscess in the spleen. As regards the liver, I must be more cautious, as idiopathic abscess is spoken of by the best authors. You will observe, however, its rarity in this country, and how, if not clearly of a pyæmic character, it is due to suppuration in Glisson's capsule or neighbourhood of fissure of liver. We know very well that the changes commencing in the structure of the liver, as seen in this country, do not end in suppuration.

It will be seen that I am speaking only of so large a collection of pus cells that can be strictly styled an abscess, and not merely the production of individual cells which constitute a later stage of the lymph cell and which might by some receive a similar appellation. For instance, cells are formed in the renal tubules and in the pulmonary vesicles which might receive the name, but I speak, I say, of those well-marked cases where collectively such pus cells constitute abscesses. My opinion is, that these inflammatory changes in the parenchymatous organs do not go on to suppuration, but that in all cases of abscess the seeds of the purulent matter are carried there from a distant part. Thus it follows that suppuration occurs not in connexion with the secreting part of the organ, but in the vascular or interstitial tissue. The seat of the inflammation is different as the result is different, and consequently the nature of the process is evident to the eye on examination after death. The same is true of some other structures, as the heart, where we know a myo-carditis terminates in a fibroid change; but suppuration, on the other hand, is always, I believe, pyæmic. The tendency of my own observation, then, is to show not only that new growths or deposits having a peculiar character take their rise in special parts, but the more common cell formations do not readily spring up in any part, as is generally supposed. I think this is equally true of cancer, which on careful study may be found to have its original seat in fewer parts of the body than is usually believed, and, like purulent deposits, may be found not to affect the viscera in the first instance. In the brain a well-marked cancer, apparently primary, is not common; in the lungs I am altogether unacquainted with it, recognising only two forms—one where the deposits are scattered through the organs as evident secondary formations, and the other so-called cancer of the lung which commences in structures about the root and then pervades the tissue. As regards the spleen, I cannot at this moment call to mind a case of primary cancer. In the kidney cancerous deposits are usually associated with the disease elsewhere, and the so-called primary affection connected with cancer of the neighbouring parts. In the liver cancer is exceedingly common, and is often spoken of as originating in that organ; but if a careful examination is made, it will be found in most instances to be connected with the same disease in Glisson's capsule or

neighbouring parts. In the testes cancer certainly takes its rise very frequently; but this may be owing to some peculiarities of structure.

A very important practical result will follow investigations of this kind. I allude to the endeavour to discover what are the influences in operation in the production of the various adventitious substances constantly met with in the body. Very careful and close observations are necessary in order to form a conclusion, the tendency of which, in my own case, is in the direction I have pointed out.

MALIGNANT PUSTULE IN ENGLAND.

Amongst the papers read at the recent meeting of the British Medical Association was a very interesting one by Dr. Budd, of Bristol, on the "Occurrence of Malignant Pustule in England." We cannot, however, quite admit with the author of that Paper, that this disease in English practice "has hitherto been unnoticed." It has been mentioned repeatedly in the pages of this Journal. About ten years ago a series of cases of precisely the same character as those described by Dr. Budd occurred in St. Bartholomew's Hospital, and in most of them the disease ran a rapidly fatal course. The cases attracted great attention at the time, and several clinical lectures were given in reference to them. A very excellent report concerning them by the late Mr. Harvey Ludlow, then House-Surgeon of St. Bartholomew's, will be found in this Journal for September 18, 1852.

We have this week to record another very similar case, and from the practice of the same Hospital. With regard to the probable origin of this disease in animal contagion, it should be noted that careful inquiries were made in respect to the cases which occurred in 1852, and that in but very few was there any history of exposure to such inoculation.

The peculiar features of the disease are, first, the formation of a very tender pimple or vesicle on some exposed part, generally the face, very often the upper lip. In a day or two acute carbuncular inflammation of the part takes place. The swelling and tension are often very great. Typhoid symptoms and delirium soon set in, and the patient often dies within a few days of the commencement of the disease. The autopsy generally shows the conditions usual in pyæmia. It is worthy of note that the disease rarely occurs in females, and that a large proportion of its subjects have been young, adult men. In most of these cases nothing could be asserted as to any very marked degree of ill-health having preceded the outbreak.

The supposition that the original pustule is caused by inoculation by flies or other insects conveying poison from a diseased animal seems one of the most probable. With such an hypothesis in view, and with the fact that so many cases occurred in St. Bartholomew's, one cannot forget that at that time the two largest meat markets in London (one for living and the other for dead animals) were in the close vicinity of that Hospital.

One point as to the treatment of these fearful cases we must not neglect to advert to. It is the importance of free incisions very early. All the cases which we have seen get well were so treated. Not only should the part be very freely incised, but some escharotic, as the acid nitrate of mercury, should be applied to the exposed surfaces. In proportion to the promptness with which these measures are adopted is the patient's chance of recovery. Should he apply whilst the disease is still in its first stage, an inflamed pustule, the free destruction of it by escharotics may perhaps be sufficient, without resort to incisions.

We must, however, again repeat that there is little evidence to show that the disease is more common in butchers or drovers than in others.

ST. BARTHOLOMEW'S HOSPITAL.

The following are the particulars of the recent case. It will be seen that when admitted the inflammation had already extended too diffusedly to admit of incisions. The case presents some rather peculiar features; but still, in having commenced as "a pimple," and in most of its chief characters, it closely resembles the cases to which we have referred.

ACUTE CARBUNCULAR INFLAMMATION OF THE FACE—PYÆMIA—DEATH—AUTOPSY.

(Under the care of Mr. PAGET).

[Reported by Mr. Stephenson, House-Surgeon.]

Charles D., aged 23, was admitted on April 3, with what on a superficial examination seemed to be simple erysipelas, affecting the nose and eyelids.

History.—He is a night watchman, of temperate habits. For some weeks past he has been ailing, without being definitely ill. He has been ill-fed, and exposed to wet and cold. During this time he continued at work up to five weeks ago, when he complained of headache, loss of appetite, etc. At the same time he felt a dull aching pain about the left ala nasi, on which, he says, nothing but "a pimple" was observable. Three days ago the nose became very red; this redness increased and extended steadily upwards to the eyelids, which also became much swollen and painful.

He was placed on broth diet, and was ordered six ounces of wine. A purgative of calomel and jalap was ordered, to be followed by senna draught.

April 4.—This morning he states that he slept badly last night, on account of headache and pain about the eyes. He was not delirious. The face is generally œdematous, the alæ nasi very much swollen, tense, and of a dusky red colour, more especially the left, which presents a distinctly carbuncular swelling, with six or eight scattered pustules on its surface. From the nose redness of a less deep hue extends upwards, in and around the tissues of both eyelids on to the forehead. The eyelids and forehead are also much swollen, puffy, and pit on pressure. Both eyeballs are fixed and prominent, particularly the left, which protrudes from beneath the lids and prevents their closure; considerable chemosis of the conjunctivæ of both eyes, particularly the left. Corneæ of both eyes dry, that of the left somewhat hazy. Pupils moderately contracted; irides apparently not affected. Vision unimpaired in the right eye; almost totally gone in the left. Appetite bad. Bowels not yet acted on by the medicine. Pulse 84, hard, full, and bounding. Respiration shallow, 24 per minute; skin hot and dry; tongue slightly furred at the edges, well marked streak down the centre. Lips and teeth dry.

Treatment.—The surface of the chemosed conjunctiva was scarified, the eyelids punctured at several spots, and some bloody serum evacuated. A little olive oil was also dropped on the corneæ, with considerable relief to the patient. The face was covered as before with cotton wool, and the windows opened near the bed to admit a free current of air. A draught of three grains of sesquicarbonate of ammonia, ten drops of chloric ether, and a drachm of liquor cinchonæ was ordered to be taken every four hours. Milk diet with arrowroot and beef-tea; wine ten ounces. Thirty drops of laudanum at bedtime.

April 5.—He slept better last night, but is said to have "wandered" occasionally. He expresses himself as being more comfortable, complains of no headache, and answers questions rationally; but he is dull and inactive. The bowels have acted several times since yesterday. Appetite improved. The face generally is much more swollen, and the œdema of the forehead has increased and extended to the hairy scalp. Nose more livid and swollen; pustules more numerous, but not discharging. On the right side the eyelids are closed, but somewhat less red and swollen. The eyeball is still prominent, but not fixed; less chemosis; cornea clear. On the left side the eyelids are more red and swollen; eyeball still fixed, and more protruded between the eyelids. Cornea more hazy and puckered; increased chemosis. Pulse 92, full, not easily compressible. Respirations 28; shallow. Tongue red and dry; skin warm and perspiring.

Evening.—He vomited soon after being seen this morning, and became unconscious, talking deliriously at times, and trying to get out of bed. In this state he has continued ever since. He vomited, for the second time, whilst this note was taken. The erysipelatous condition of the eyelids, etc., not materially altered. Pulse 72, small and labouring. Respirations 40 per minute. Breathing somewhat stertorous. Skin hot, dry, and perspiring. Lips, gums, and teeth dry, and covered with sordes.

6th.—Passed a quiet night; quite unconscious, not talking deliriously nor attempting to get out of bed. Takes no nourishment. He is now lying on his back in a comatose state, with half-opened mouth, breathing stertorously and hurredly (respirations 70 per minute). Pulse very rapid, small and weak. Lips and teeth dry, and covered with sordes. Skin beneath the bedclothes hot and perspiring, but the uncovered left hand cold and clammy. The face, and especially the nose, which is covered with pustules, has a very livid aspect; both eyeballs are protruded; cornea of right clear,

that of left dry and inclined to slough. Forehead and scalp more œdematous. Urine passed unconsciously. He died at 5 p.m. same day.

Autopsy.—The under surface of the scalp in the situation of the eyebrows was red, soft, and infiltrated with pus. The brain surface dark and congested. Veins distended. A good deal of dark fluid blood kept dripping from the divided sinuses of the dura mater. A small quantity of sero-purulent lymph was found beneath the arachnoid, covering the outer part of the right hemisphere. On turning over the brain a much larger quantity of the same kind of pasty, purulent lymph was seen beneath the arachnoid, smeared over the base of the brain here and there, and on the lower surface of the cerebellum, not extending to the medulla oblongata. The cerebellum was softer than natural, and easily broken down. Some purulent-looking matter, probably broken down clot, was found in the interior of a small vein at the base of the brain. Pituitary body was soft, reddened, and smeared with purulent liquid. No pus could be seen about the cut end of the optic nerve, in the optic foramen. On opening the left orbit from above in the usual manner and dividing the periosteum, the fat at the back of the orbit was found reddened and slightly infiltrated with purulent material. The left ophthalmic vein and its primary divisions were much distended with what looked like thick coherent pus mixed with red colouring matter of the blood. (Microscopic examination proved it to be degenerate blood clot.) The internal surface of the ophthalmic vein was much reddened, as if deeply blood-stained. The optic nerve (left) was lengthened, probably from the eyeball having been protruded by the effusion into the cellular tissue of the orbit. The left cavernous sinus was filled with a semi-purulent blood clot similar to that which had distended the ophthalmic vein, and was, in fact, continuous with it. On tracing this back into the circular sinus, that also was found filled with the same material; here it stopped. The right orbit and cavernous sinus were in the same state. There were pyæmic spots in both lungs.

THE LONDON HOSPITAL.

CASE ILLUSTRATING THE INFLUENCE OF THE NERVES UPON NUTRITION AND ANIMAL HEAT.

(Under the care of Mr. HUTCHINSON.)

SYNOPSIS: *Division of the Ulnar Nerve and Vessels, and of the Median Nerve—Anæsthesia of the Parts Supplied—Inflammation of the Tips of Three Fingers, unattended by Sensation—Diminution of Animal Heat in all the Parts Paralysed—Increase of Heat in the Inflamed Parts, but still not up to the Normal Standard.*

A healthy girl, aged 22, cut the ulnar side of her right forearm very deeply on a broken window. The wound was at the upper part of the lower third, and passed across the ulnar vessels and nerve deeply into the mid-structures, probably dividing the median nerve. It bled very freely indeed. She was taken to the Hospital, when the hæmorrhage was arrested and the wound dressed.

She came under my notice three weeks afterwards, the wound being then just healed. The scar was then puckered in. She stated as regards pain that she had had very little in the wound, but much aching in the palm.

The hand of the wounded arm looked a little thinner and a little paler than its fellow, but there was no other difference to the eye. All the fingers were kept bent slightly in the palm, and she was unable to straighten them, owing, as she believed, to the effort to extend dragging on the scar. In the attempt to extend the scar was moved. She was able to flex the fingers fairly, but could not contract her palm, or bring the thumb into apposition with any of the fingers. The muscular mass between the thumb and forefinger was thin and flabby. The beat of the ulnar artery could not be detected below the scar, but that of the radial was of full vigour.

Sensation.—Immediately below the scar she could feel the prick of a pin, but not acutely; an inch or two lower she could scarcely feel it. To the radial side and at all parts above the scar she could feel well. At the level of the wrist, in front, all sensation was lost, excepting over the ball of the thumb, where it was retained in an imperfect degree. The little finger had no sensation on either side, nor had the ring, middle, or fore-fingers. There was no sensation at the backs of the little, ring, and middle fingers, very little at the back of the forefinger, but somewhat more behind the thumb. Over the back of the hand sensation was imperfect, being more so as the ulnar border was approached. The extremity of her ring finger was inflamed, and presented an open sore, on the face of which, however, the prick of a pin was not felt in the least. The ends of the middle and little fingers were also inflamed. She had had no pain in the parts during the formation of these whitlows, but a continued aching in the palm of the hand. The palm, it should be observed, was not in the least swollen, nor was it tender to pressure.

Nutrition.—About ten days after the accident the tips of the little, ring, and middle fingers inflamed. In each the exact tip was affected, and serum was effused beneath the skin over the entire extremity; the finger ends were slightly swollen, reddened, and, in the case of the ring finger, somewhat tense. No pain was felt. The effusion in the little finger was absorbed. The skin at the end of the ring finger died over a space of the size of a sixpence, and there is now an open sore at that part. On the middle finger a subcutaneous (not subcuticular) bulla still exists. The cuticle is elevated by effused serum (subcutaneous whitlow), and there is an areola of reddened skin about it.

Temperature.—On cursory examination no difference from normal heat would have been observed in the affected hand (the weather being sultry). On comparison with the other hand a difference is, however, very perceptible; the nails of the affected hand feel, indeed, slightly cold. By the thermometer a difference of about nine degrees is shown between corresponding parts of the two hands. On the finger most inflamed the heat is greater than on the others, but still does not rise quite to that of the same finger of the other hand.

Right forefinger (paralysed) side	79°	front 78°
Left ,, (sound) ,,	90	,, 87
Right little finger (paralysed) . radial side	80°	ulnar side 79°
Left ,, (sound). . ,,	89	,, (a)89
Right ring finger (paralysed but inflamed)	front 89	,,
Left ,, (sound)	,, 91	,,
Right middle finger (paralysed but slightly inflamed) . . .	,, 87½	,,
Left middle finger (sound) . .	,, 91	,,

Remarks.—The parts implicated in anæsthesia render it tolerably certain that the median as well as the ulnar nerve has been cut through, and is still ununited. That we may safely refer the symptoms produced to the section of the nerves and not to that of the ulnar artery, will probably be admitted by any one who considers the freedom of inosculation of the arteries about the wrist, and that three weeks had elapsed since the accident. It was, besides, inflammation and not gangrene which occurred, and it did not follow immediately after, as would have been the case had it been due to cutting off of the blood supply.

THE QUEEN'S COLLEGE, BIRMINGHAM.—At a special meeting of the Council held on Wednesday, the 13th inst., the Right Hon. the Principal the Earl of Lichfield in the chair, the Dean of the Faculty reported that the Honorary Præmia had been awarded. The College Prizes have been awarded:—Surgery—1st Certificate and Medal, Lloyd; Certificates (Æquales), Hinds and Steward. Medicine—1st Certificate and Medal, Carreg; 2nd Certificate, Lloyd. Anatomy—1st Certificate and Medal, Taylor; Certificate, Mackay, Owen, and Payn. Physiology—1st Certificate and Medal, Melson; 2nd Certificate, Hinds. Chemistry (Practical)—1st Certificate and Medal, Lloyd; Chemistry (Theoretical)—1st Certificate and Medal, Mackay; 2nd Certificate, Beach. Demonstrations—1st Certificate and Medal, Taylor; Certificate, Owen and Payn. Botany—1st Certificate, Mackay. Medical Jurisprudence—1st Medal, Melson; 2nd Certificate, Lloyd. Midwifery—1st Medal, Cheatle; 2nd Certificate, Gibbs; 3rd Special Certificate, Taylor. Materia Medica—1st Certificate, Baxter; 2nd Certificate, Lewis. Clinical Medicine—1st Prize, Taylor; 2nd Prize, Carreg. Mathematics—Prize; Anatomy—1st Prize; Botany—1st Prize; Chemistry—1st Prize; French—The Clay Prize (Junior Arts Branch), Sawyer. The Dean of the Faculty reported that the Scholarships, the Warneford Gold Medal, and the Surgical Clinical Prize were under adjudication. Professor Postgate was unanimously invited to deliver the Introductory Address of the ensuing Session.

(a) Two sides exactly alike.

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Medical Times and Gazette.

SATURDAY, AUGUST 23.

WORK FOR THE BRITISH MEDICAL ASSOCIATION.

The Association, since its great and successful London meeting, may fairly be said to feel itself strongly planted and vigorous. But no vigorous life can be maintained without work; and it will be well just to glance at the work which the Association can and ought to do.

First, there is the social work, which has been done well. In every district, great or small, town or country, the Practitioners ought to have their friendly gatherings, their picnics, or annual dinners. Feasts, be it observed (as hath been said by the judicious Hooker), form part of all ceremonies, religious and mundane. But we have heretofore spoken enough of the great benefits and pleasure derivable from social gatherings such as those of the Association.

Then there is the scientific work. It is impossible to overrate the advantage of bringing town and country into friendly competition; of giving the remote and solitary worker or thinker the power of coming from his quiet village, and of being heard by the *élite* of the Profession of the whole Kingdom, and of stimulating the provincial Practitioner (little as that stimulus is needed) to show that in eloquence, philosophy, scholarship, and the solid fruits of observation he is not one whit inferior to his town brethren. But it is not enough that orations be delivered, or that papers be read by individual members; there ought to be combined and corporate work. How can a register of existing disease, whether of transient, epidemic, or of the more abiding maladies, be better obtained than through such an Association? How otherwise ought we to learn the influence of local climate, work, soil, diet, and *race?* Who can tell us anything of English ethnology? What distinguishes the Aberdeen man from the Dorset or Cornubian? Besides, an Association ought to defray the expenses of joint investigations. Here let us give all praise to the pluck of Dr. Handfield Jones, who insisted on bringing forward his paper on Therapeutics in defiance of some members of the executive who wanted to shelve it. Thirty pounds is little enough; but if well spent it will afford a fair ground on which some independent member, in presence of Sir Charles Hastings, shall imitate Oliver Twist's audacity, and "ask for more." We repeat that we have a right to expect from an "Association" some contributions towards the settlement by experiment of vexed questions, of which it is not fair that private shoulders should bear the whole burden. There are many young and acute men who would follow out lines of investigation were the cost guaranteed.

A further part of the work of the Association should be the morals of the Profession within itself; the decision of what is "Professional conduct," and what not. A very important question was raised by Dr. Gibbon, as to "gratuitous practice," which really means how far are we entitled to impoverish the whole Profession in order to aggrandize ourselves. We may remark in passing, that Dr. Gibbon is said to have received the reverse of encouragement from a certain set of the "authorities" for mooting this troublesome question. Here it is. A "General" Practititioner, an honest fellow in a "low" neighbourhood, makes a good income out of the sixpences and shillings which the artisans pay him for physic including attendance. Is it right that some "Consulting" Practitioners shall raise a Dispensary, give the advice and medicine for nothing, and so leave the pauperised artisans an extra shilling for the gin-shop? There is the crying scandal, too, of the Medical Witness question. We, the *Medical Times and Gazette*, claim the credit of having set the legal obligation of skilled witnesses to attend on *subpœna* in its true light. Henceforth no man can say that he is *obliged* to get into a witness-box, and swear to his neighbour's injury. Let us hope that the Association may say something yet about the haphazard dicta which are pronounced in Court on the evidence of other Practitioners. Mr. Charles Hawkins endeavoured unsuccessfully to effect an amalgamation of London Societies for these very purposes. But the British Medical Association *is* such an amalgamated Society, and ought to represent the mind of the Profession, and make itself felt.

Lastly, there is the political status of the Profession; the privileges which are peculiar to it, and which have to be vindicated from all inroads from without. This is a department which the Association ought pre-eminently to make its own. It is mainly responsible for the present condition of things. The leading members of the Association, past and present, represent the Scottish or reforming party, and are wearing the victor's laurels. Within the memory of not very old men, our Profession was protected by law. No man could legally practise as a General Practitioner unless he obtained the licence of the Apothecaries' Act of 1815. No man (except Oxford and Cambridge graduates) could legally practise as Physician in London without licence of the College of Physicians. But this protection unluckily excluded the graduates of Scottish Universities. It was not fair that men who were legally qualified in Scotland should be disqualified in England; and though common sense would suggest that neither their pride nor their pocket need have hindered them from stooping to obtain the requisite licence, still they thought otherwise, and the fence that kept out quacks was abolished in order to let in the Scottish graduates, whom nobody desired to keep out. Unqualified Practitioners are now legalised. They may take away the bread and privately slander the reputations of honest men,—and this, be it observed, is *the* great instrument of quacks,—but they have this burden: if they are convicted of deceiving the public and of representing themselves to be qualified, they may be trounced. Now, there is a case in point at Ormskirk. A man named Bowen has been convicted by the magistrates at the Ormskirk Petty Sessions of having used a title to which he had no right. The primary trial was expensive, but as the defendant has appealed to the Court of Queen's Bench the further expenses will be considerable. We, in the name of the Profession, thank Mr. Symonds and his Medical brethren at Ormskirk for thus vindicating their own rights and protecting the ignorant and unwary. But is it decent to allow these gentlemen to bear the costs? Certainly not. The licensed victuallers, the grocers, and drapers have trade associations; the cowkeepers, cabmen, and rag and bottle dealers all contribute to bear the charges incurred by their brethren in defending rights common to their "professions." Can, then, the British Medical Association hesitate for one hour to guarantee the expenses of their Ormskirk brethren?

MEDICAL EDUCATION IN BRISTOL.

(*From a Correspondent.*)

The Prospectus for the next Session of Medical Education in Bristol has just been printed, and it may be remarked, as a really useful procedure, that this takes place in August, so as to allow time to those whom it may concern to think out the *pros* and *cons* as to the entry upon a course of study in the Metropolis or a commencement, at least, in the West of England School. It is to the West of England, of course, that the Bristol School looks for support, and its above-mentioned Prospectus is accordingly sent by the indefatigable Honorary Secretary to the Doctors in Cornwall, Devon, Gloucester, and South Wales. The papers thus distributed are threefold (that being the number of the teaching Medical bodies in Bristol), as follow:—the School, the Royal Infirmary, and the General Hospital. The two last named are "recognized" Hospitals, and in both the practice is arranged "in conformity with the regulations of the various Examining Boards, and the hours of attendance and clinical lectures are in accordance with those of the Medical School." The School itself is not situated *at* either Hospital, but belongs equally to both, and students attend their practice at the Infirmary or General Hospital as a matter of choice or convenience; while the staff of Lecturers at the School is drawn almost entirely from the two Hospitals, the larger proportion, as it happens, being attached to the General Hospital.

Strangers in search of the Bristol Medical School probably share the feelings of our old friend, Mr. Winkle, when, in his wanderings through this picturesque old city, he came so opportunely upon the surgery of Mr. Sawyer, and when, "the streets of Bristol not being altogether the straightest or least intricate upon earth, Mr. W. was greatly puzzled by their manifold windings and twistings." In point of fact, the weakest point of the Bristol School is its situation, and in this its founders were more sinned against than sinning. In "good" old days, when science anatomical was held to be something of a black art, and at least as improper as science geological or astronomical, when dissecting-rooms, like violets, blushed unseen, and the Anatomy Act, simple as it was, needed the eloquence of a Macaulay to support it, such sites were selected. The approach from Bristol is by a labyrinth of steep and narrow streets, for which some amends are made by the walk in the opposite direction to Clifton; this leads over the brow of a picturesque hill, half a mile across the Park, towards the breezy plateau of the Downs.

The interior arrangements of the Medical School are, however, very complete. The intelligent porter will show you over two ample lecture-theatres; two dissecting-rooms, admirably lighted, warmed, and ventilated; a reading-room, with large diagrams; and a museum, thoroughly well filled, and so classified and catalogued as to be readily available for students. In the management of the School, great stress is laid on the practical portion of each course; while, at the same time, the attendance of every student on lectures is always registered, and certificates regulated accordingly, so that an exact and *noted* supervision of each pupil's diligence is retained, to the avoidance of false testimonials. The prizes are awarded on competitions limited to opponents of the same standing, and who must compete in every subject of their respective years, the marks being allotted to mottoes,—a plan which ensures a testing for general proficiency, instead of a possible cramming of one particular subject. An exception to this rule, however, is made in the case of Practical Anatomy; this prize, consisting of a valuable case of Surgical instruments, being obtained by the best dissection of a given region. The prizes and "certificates of honour" are given away at a meeting held at the end of the Winter Session, when an address is delivered,—the whole forming an *actus valedictorius*. This forms a satisfactory substitute for the "Introductory Address," which was found to be a somewhat superfluous addition to the *proœmium* naturally given by each lecturer in his own course, and an occasion also when senior students, having completed their last winter, had passed their examinations and left the School.

Almost peculiar, I believe, to the Bristol School is an admirable plan of finishing all the lectures before noon, avoiding as well the weary task of returning from Hospital, as the insufferable nuisance of leaving a good dissection long before dark, shutting it up, and washing hands for an afternoon lecture. Here the men are free before noon to read in the museum, to dissect, or to go off to Hospital work for the rest of the day; this being effected by a simple plan of dovetailing the lecture hours, and beginning as early as 8.15 a.m. in winter and 8 a.m. in summer. Of the subjects of the various courses I need say nothing special; they are such as the Examining Bodies require by rule, for students have long since learned to look entirely to their schedules to know what lectures they *must* attend. Lately added, however, are courses in Dentistry, of which the metallurgy is given by Mr. Herapath, and the "dental mechanics" by one of the chief artists in that branch possessed by the West of England.

As before stated, the students attend their Hospital practice either at the Infirmary or at the General Hospital, each of which institutions is fully "recognized," and has its own complete arrangement of museum, library, clinical lectures, fees, prospectus, and prizes. There is scarcely any question of superiority between these two Hospitals as to the education obtainable at them, for on the staff of each are to be found Surgeons and Physicians who, zealous, young, and well up to the mark of other Schools, have done their utmost to obtain the ways and means for Medical or Surgical education.

The Royal Infirmary, with its 242 beds, of which but few are usually empty, is nearer to the School than the General Hospital; three furlongs off, in measured distance, against six for the latter, so that in neither case has the pupil to walk a mile to his work. The Infirmary was "founded in 1735, and is, therefore, one of the oldest provincial Hospitals," from which, besides local *prestige*, it derives a large museum, of late carefully rearranged, and kept in excellent order.

Walk down the hill from the Medical School, skirt the quay, cross a drawbridge, and, in an open site, you come upon the rather ornamental frontage of the General Hospital. Founded in 1832, and finished in 1858, this Hospital contains now 130 beds, and we are told in its Prospectus that,—"situated in a populous district, near the docks, collieries, manufactories, and railway stations, its wards are supplied with a great variety of important cases." The interior of this new building is naturally bright and cheerful, and an unusual cubic allowance of air is allotted to each bed,—advantages which, along with somewhat lower fees, may fairly balance, as to a student's comfort, against the size and age of the sister Institution. Of course, a student and his friends usually decide where he shall enter on grounds proper to the individual case; either he is the private pupil of a particular Physician or Surgeon, or he resides near the Infirmary or the Hospital, or he comes in daily by rail, in which case the latter is conveniently near the terminus.

I cannot give you a general scale of fees for the Bristol Medical School, because the two Hospitals vary somewhat in this respect. The following table, however, shows the cost of the lectures at the School *plus* the Hospital Practice actually required in each case:—

	Infirmary. £ s. d.	General Hospital. £ s. d.
London University M.B. .	98 5 0	87 5 0
College of Physicians Licence	95 2 0	82 10 0
College of Surgeons . .	94 15 0	82 4 0
Apothecaries' Society . .	104 8 0	89 11 0
General perpetual fee . .	109 16 0	93 13 0

In reference to this table it should be held only to represent the lectures and practice which the student *must* attend by

the laws of each Examining Body; for it is pretty certain that a liberal and complete Medical education implies "dresserships," anatomical "subjects," books, and, perhaps, private tuition, all of which add something, though not much, to the sum total. There are scholarships and prizes at each Institution as well as those already alluded to at the Medical School; those of the General Hospital amount to £51 annually, those of the Infirmary to about £45 4s.

Very good and quiet lodgings for students are abundant at Clifton, or, nearer to the School, at Kingsdown; and I happen to know that the Honorary Secretary is always willing to afford advice to first year's men upon this point. The expense of student life here, variable as it of course may be, seems to average somewhat thus:—A, board in ordinary lodgings, £1 per week. B, in a family, £50 to £80 per annum. C, with a Professional man as private pupil, £80 to £100. D, as resident pupil in Infirmary or Hospital, about £50 per annum. The system of apprenticeship, in the old sense, may have become obsolete, but the advantages of becoming pupils of the House-Surgeon (usually a man of experience), with comfortable quarters in the house, and of seeing every accident or urgent case at its admission, can scarcely be overrated. Certainly, as managed here, this plan offers one of the very best and cheapest portals to the Medical Profession.

Before concluding this notice of a School which has now, for a long series of years, produced many well-known and tried Practitioners, it seems scarcely fair not to allude to several positive advantages to be found in this place. Thus, the number of students actually at work, now about thirty, is not so great as to occasion a difficulty in their obtaining the offices of Clinical Clerk, Dresser, Prosector, Demonstrator, Assistant House-Surgeon, or Resident Surgeon, to the two last named of which good salaries are appended. The supply of anatomical material is always good, often in actual excess of the demand. The hours of lecture readily admit of pupils, as is now the case, residing in the neighbourhood, say at Bath or Weston-super-Mare, and coming in daily to work; while the short distance of Bristol from London, under three hours, is most convenient for running up to the now rather multitudinous examinations. Besides the regular lectures, several of the junior members of the Faculty give private tuition, should it be required; and, generally speaking, there is a very close personal intercourse between the lecturers and students. But my letter has outrun its limits, and I can do no more than simply, and not without exact and serious scrutiny, express the opinion, that residents here, in the West of England and Wales, or those to whom any circumstances may point out for selection the healthy and beautiful locality of Clifton, cannot do better than join the very steady and gentlemanly set of students at the Bristol School of Medicine.

THE WEEK.

THE USE OF METHYLATED SPIRIT IN PHARMACY.

Everybody is aware that in 1855 a law was passed to allow spirit of wine, mixed with wood spirit, to be used for certain purposes duty free; the objects contemplated and attained were to promote the advancement of the arts and manufactures and to prevent the illicit distillation of spirit of wine. It was then believed, on the report of Professors Graham, Hofmann, and Redwood, and also of Mr. G. Phillips, that a potable spirit could not be prepared from this admixture; but seven years have added somewhat to our knowledge, and at the present moment such purified or "cleaned" spirit may be prepared and sold at the price of 7s. per gallon. The opportunity thus offered to defraud the Revenue has not been allowed to pass over; and for some time past tinctures prepared with "cleaned" spirit, and undistinguishable from those prepared with ordinary spirit, have been on sale at prices which defied all competition on the part of honest traders. The latter very properly complain that the Legislature does not protect them, and their outcry has found expression in the pages of their Journal—the *Pharmaceutical*. Last April the Board of Inland Revenue, with a view to check this dishonest practice, issued a general order with additional regulations in respect of methylated spirit, and direct that "Supervisors immediately acquaint every person authorised to use methylated spirit, that they are not at liberty to purify the spirit in any manner whatever, but must use it for the purpose sanctioned by the Board in the state in which it is received." A firm previously largely engaged in the purification of methylated spirit have consequently issued a circular to the effect that, while prevented from executing further orders for tinctures prepared with purified spirit, they can still supply sp. æth. nit., sp. ammon. co., æther chloric, æther sulph., and chloroform—meaning cleaned spirit, with such a dash of any of the above as exposure to the air for a short time will clear away:—the price of such articles being about 9s. 6d. per gall. We trust, with the Editor of the Journal referred to, that some means may be devised for putting a stop to these demoralising practices.

GRANULATION OF MEDICAMENTS.

Cito, tuto et jucundé. The difficulty has always been to compass the *jucundé*. We need not recall the numerous contrivances by which Medical men have striven to render nasty physic either less nauseous by admixture with other flavouring matters, or tasteless by coverings of various kinds, such as coating with harmless metallic leaf, gelatine, sugar, etc. We simply desire to call attention to a new plan proposed by Dr. Skinner, of Liverpool, and effectually carried out, as it would appear, by Mr. Banner, pharmaceutical chemist in the same town; and we do so the more readily because Dr. Skinner proposes other advantages as likely to follow an extended use of his method of *granulation*. The last few numbers of the *Pharmaceutical Journal* have been the arena of a little disputation upon the *pros* and *cons* of the subject between Dr. Skinner and Mr. Haselden; and as both have now had their say, we shall briefly describe the process of granulation, and point out how far we think the advantages of Dr. Skinner's suggestion are likely to be attained. In granulating drugs, he prefers that they should be coarsely ground, and not reduced, as usual, to the form of an impalpable powder. In this way he thinks that the notorious adulterations practised by the drug grinders, who are required to make up the loss accruing from a necessary previous desiccation, will in time die out. He directs—1st. That either a crumbly sort of pill mass should be formed by means of mucilage of gum Arabic, or that the powder should be made into a dry paste rolled into thin cakes, dried at a low temperature, and then coarsely powdered. 2nd. For granulation or sifting of the mass or powdered cake he uses sieves of various sizes, through which he rubs the mass or sifts the powder. 3rd. Those granules prepared from the mass are allowed to dry spontaneously; those from the cake require no drying. He then stirs the granules with a small quantity of tincture of tolu, with or without musk, rose, etc., until they appear glossy and shining, thus giving them a thin coating of a material impervious to water, so that they either may be taken suspended in that liquid, or being laid upon the tongue may be washed down without the taste of the drug being perceptible. He assures us from his own experience that the most fastidious who object to pills, as well as children, readily swallow medicines thus prepared; and from that of Mr. Banner, that there are few drugs which are likely in the end to prove refractory to the process. The amount of foreign matter thus introduced does not usually amount to more than $\frac{1}{16}$th, thus such as would not materially interfere with the dose to be administered. He asserts that the granules keep well, and are ready in their action. The objections raised by Mr. Haselden appear to us to be chiefly such as the tact of

the Pharmaceutist and the experience of the prescriber will in time overcome. We do not understand Dr. Skinner to impress the *universal* applicability of his process. He fairly states some of the difficulties in the way of its adoption on all occasions when medicine has to be administered. Even if the Profession adopted extensively Dr. Skinner's suggestion, we can conceive of a variety of occasions in which the ordinary Pharmacy must be had resource to, and amongst these is the preparation of extemporaneous prescriptions containing several substances of different natures. But even here it might happen that the simple granulated powders might be mixed in the proper proportions quite as readily and uniformly as the compound powders of the Pharmacopœia. Where a dispensing Practitioner is in the habit of using certain formulæ too, he commonly keeps the powders or pill masses ready made up. He may just as well keep them granulated. There is one suggestion, however, in Dr. Skinner's Paper, to which we think a very proper objection has been raised, and that is that these granular medicines may be administered by the spoonful as readily as by weight. We should be sorry if a system of slovenly dispensing were likely to be an outgrowth of a useful invention. The suggestion is, we think, unfortunate.

THE LAST REPORT OF THE COMMISSIONERS IN LUNACY.

The Act of Parliament (8 and 9 Vict. c. 100) under which the Commissioners in Lunacy perform their functions, provides for the annual visitation by them of all Asylums and houses in which insane people are confined, and for an inquiry on their part into all the details of management, including the occupations and amusements of the *patients*, as to the conditions, both mental and bodily, of the pauper patients when first received, and also as to the dietary; and they are also required to make such other inquiries as they shall think fit. Thus their powers of inspection are most extensive, and we cannot but think most conducive to the public benefit. In commenting upon that portion of the Sixteenth Report which relates to Private Asylums, we shall limit ourselves to exhorting all Medical men who desire to do the best for their patients to consult these records before selecting the establishment to which any one should be entrusted. But with respect to pauper patients we have a good deal more to say. The large bulk of the volume referred to is devoted to their interest: and most properly so. For the great failing of Boards of Guardians is stinginess, and the great failing of Courts of Quarter Sessions, which have the licensing of Private Asylums and the control of Pauper County Asylums, is something closely allied to this vice. The result is just what might be anticipated: the Guardians either retain their insane paupers in Workhouses, where their comforts and Medical treatment are more or less neglected, distribute them singly among persons who will undertake to look after them at the minimum of charge, or place them in the worst and lowest class of Private Asylums where a County Asylum does not exist. But it is to the County Asylums and their management that we would chiefly direct attention, for it is in these especially that we see the evil of a divided jurisdiction. This is nowhere more evident than in the two Middlesex establishments of Hanwell and Colney Hatch, which have now attained a magnitude which renders them quite unmanageable, at all events with the staff at present engaged, and with the restricted authority conceded to the misnamed Medical Superintendents. It certainly is an instructive fact that out of the only five cases of serious casualties which the Commissioners found it necessary to report, four occurred in these two Institutions,—two at Hanwell and two at Colney Hatch. Towards the close of last year we felt it our duty to comment severely upon the conduct of the Committee of Justices in the management of the latter of these. We are happy to observe that our opinions as then expressed are completely endorsed by the Commissioners, whose recommendations the Middlesex magistracy simply treat with contempt. The labours, special knowledge, and higher experience of those gentlemen certainly entitle them to different treatment from persons who, fit enough, perhaps, to lay down rules for the routine of a Gaol, are without question totally unfitted by their ordinary antecedents to direct an establishment for the cure of mental diseases. They make matters as bad as they can be by their absurd distinctions between Medical and domestic management, placing the latter, undoubtedly the most important point of all in the treatment of the insane, totally beyond the control of the chief Medical officers, who may well be believed to be sickened and disgusted with a plan that limits their powers while it does not lessen their responsibility, and which not only contravenes the Lunacy Act, as we read it, but introduces the sad elements of discord which the present Report too clearly lays open to our view. Parsimony on the one hand, and the obstinacy of ignorance on the other, are doing their worst. Again we urge, seriously and solemnly, the necessity of Parliamentary interference, and the absolute and imperative call that exists for the transference of the control of these two Institutions at least from the present incompetent hands to those of the Commissioners in Lunacy, who, at any rate, would make the Medical Superintendents something more than Principal Medical Officers. The government of an Asylum to be perfect must be an autocracy.

SIR ROBERT PEEL AT THE BELFAST ASYLUM.

Now we are upon the subject of Lunatic Asylums, we cannot refrain from alluding to an event which is recorded in the recent Report of the Belfast Asylum, and which certainly does not redound to the credit of the Chief Secretary for Ireland as an impartial and judicious administrator. We have so long been in the habit of associating the name of Peel with all that is English in its sympathies and habits, that had we casually heard of the occurrence, we should have been disposed to regard it as an impertinent slander. There are few better-conducted Asylums than that under the management of Dr. Robert Stewart, who, we believe, stands as high in the confidence of the Governors of the Belfast Asylum as he does in the opinion of his Medical brethren, especially in the speciality which he practises. We can thus easily conceive the astonishment of both himself and the Governors when one day in October last year the following extraordinary memorandum was forwarded to them from Dublin Castle:—"How was it that yesterday both the manager and matron of the Belfast Asylum were absent at one and the same time from their duties? Is not this a fit subject for inquiry? Again, can it be the case that the attendants in the Belfast Asylum carry clubs when accompanying visitors through the wards? Has there ever been an instance of the use of these clubs on the part of the attendants towards the patients? Pray make these inquiries of the Board and report immediately. (Signed) Robert Peel. P.S.—I am told that yesterday, in the absence of the manager and matron, the condition of the house was anything but cleanly, although it has got the character of being a well-conducted establishment. (Signed) R. P." Sir Robert Peel neither named his informant nor directly took upon himself the office of accuser, nor did he hesitate to make the gravest and, as might have been expected, the most unfounded charges against the managers of the Institution without one tittle of proof. After explaining to the Chief Secretary the unfounded nature of these serious accusations, the Committee very properly call upon him "to direct a searching inquiry upon oath before a competent tribunal, where the accuser and accused would stand face to face." We should scarcely have thought that any person who held a high official seat in the British Government would have required to be taught this first principle of British justice. But the Chief Secretary

was not thus to be placed in the wrong: in a few days he himself paid a visit to the Asylum *unexpectedly*, and made the following extraordinary memorandum in the visitors' book:—"I have this day visited this Institution, but it is difficult to judge of its general cleanliness, on ordinary occasions, from the fact of the wards and every part of the corridors having just been thoroughly washed, the beds arranged with clean linen, etc." Not content with expressing an unfair suspicion that the ordinary condition of the wards was exceptional, he went on to complain that the matron, whom he knew was in ill health, did not associate herself with the manager in accompanying him through the wards. We wonder what condition of the Asylum would have given satisfaction to this fastidious official. He was evidently determined to spare no man's feelings, no man's reputation in maintaining his own egregious error. Clubs indeed! By-the-way, he does not tell us if he saw any about the establishment. As his visit was made on November 15, it is somewhat astonishing that he does not state his belief that a bonfire was made of them on the 5th.

THE ALLEGED POISONINGS.

In the further examination of Constance Wilson, *alias* Catherine Taylor, which took place on Saturday, August 16, the evidence of Mr. Nunneley, of Leeds, and of Professor Taylor, was taken in reference to analyses of portions of the body of Mrs. Ann Atkinson. On the 23rd of April last, Mr. Nunneley received from the police certain portions of the body for analysis. These consisted of the stomach, intestinal canal, liver, spleen, omentum, and one kidney. His report commenced by stating:—

"That the parts of the body submitted to analysis were not decomposed. Indeed, the preservation of their texture was remarkable, considering the long period which had elapsed since death. Neither upon the stomach nor on any part of the other viscera were there any indications of there having been lymph effused or adhesions formed during life, such as might have been formed by inflammation of the parts. Hence the idea of this having caused death, so far as the evidence is of any value, is negatived. The stomach was completely empty, except that its whole inner surface was uniformly covered by a homogeneous pultaceous matter of a dark chocolate colour, without a particle of food or other solid in it. There was an ounce and a-half of this matter, and on its being carefully removed the mucous membrane under it was found to be thrown into folds, as though the stomach had been empty and strongly contracted before death. It was of a red colour, with patches of a darker hue. With the exception of the cœcum, the entire length of the intestinal canal was completely empty, and in this part of the gut there was a small quantity of matter, precisely similar to that found in the stomach. The mesentery, the omentum, the large intestine, and the kidneys were loaded with fat, showing that there had not been any emaciation before death. Various parts were separately analysed by the process known as 'Reinsch's.' Other parts were examined by Marsh's process, which the witness considered, though much used and very satisfactory where arsenic exists in a large quantity or in a condition of ready solubility, to be one of much less delicacy than Reinsch's, and consequently of much less value in a case like the present. Considering that by Reinsch's process metallic substances of a characteristic iron grey colour were obtained from so many different viscera, that from at least four of them distinct octahedral crystals were sublimed, and that no other substance than arsenic will yield such results; considering that a minute portion of common white arsenic treated as nearly as possible in a like manner yielded corresponding results, he could arrive at no other conclusion than that arsenic was present in most, if not all, of the organs of the body, and that it had been introduced during the lifetime of the deceased, and that probably at some short period anterior to death. That the quantity actually present in any one organ at the time the analysis was made was small was proved by the negative results of Marsh's tests, and the slight results of the liquid tests, but these do not destroy the positive evidence obtained by the other processes. As the whole of the viscera had not been used in the analysis, it was very probable the remaining portions, with a further and more complete re-examination of the coated copper already obtained, might confirm decidedly the opinion he gave. The witness further stated that the body of the late Mrs. Atkinson had been re-exhumed on Monday, June 23 last. He was present on that occasion at Kirkby Lonsdale, and had removed the whole of the remaining viscera, as well as portions of the muscles from different parts of the body, and also part of the brain. He was quite sure that these portions had not been before removed or disturbed. These were placed in jars, and sealed by witness, and forwarded to Professor Taylor, in conjunction with whom he subsequently made an examination. From the kidney, which he had sent up, by the application of tests minute microscopic globules were obtained, which possessed more the character of mercury than arsenic; and on further investigation of the stains on the copper foil, proof of the presence of arsenic was not obtained, and the conclusion to which he had now arrived was that there was no proof that the death of the deceased was caused by arsenic, but that it was caused, in all probability, by some other irritant poison. The presence of octahedral crystals is only one portion of the proof of the presence of arsenic, and it requires to be confirmed by other tests before it can be sworn to.

"Mr. Norton: In consequence of the body remaining so long interred, chemical changes must have taken place. Would not that make it more difficult, if not impossible, to trace arsenic?

"Witness: Yes, if the quantities administered had been extremely minute.

"In reply to Mr. Chipperfield, the witness said that it was quite possible that arsenic might have been the cause of death, and a great portion of the whole of it expelled from the body by absorption. Besides, arsenic might be given and effect great mischief, but be carried off by vomiting and purging. A vegetable poison, such as colchicum wine, or in any other form, would produce the appearance he had discovered and described, but colchicum would not be discoverable at this distance of time.'

Dr. Taylor's evidence in the case was purely negative. He had received portions of the viscera, including the heart, lungs, and kidneys. The conclusions which he drew from his analysis and investigation were:—

"1. That those parts of the deceased lady which were sent to him for examination,—namely, the lungs, one kidney, and a portion of the blood, contained no arsenic. 2. That the only metallic substance found by analysis consisted of minute globules presenting the character of mercury, and these were separated from the kidney. 3. That in reference to the research for arsenic, Mr. Nunneley had examined, and he had not had an opportunity of examining the stomach and intestines and their contents, as well as the whole of the liver and spleen, parts in which poison is more commonly detected after death; while he had examined, and Mr. Nunneley had not examined, the lungs, and he had found no arsenic therein. 4. That the only parts of the body that had been examined by both were the red or bloody liquid derived from the viscera, and next the kidney. In his analysis of those parts in April, 1862, Mr. Nunneley obtained a dark grey coating on copper, from which, however, it appears, he obtained nothing to show that in either case the coating was caused by arsenic. In his (witness's) analysis on June 26, the bloody fluid referred to gave no coating or tarnish to the copper, while the kidney analysed by Mr. Nunneley and himself on June 28 caused a slight tarnish or deposit on the metal, from which no arsenic could be procured, but globules resembling those of mercury were obtained. 5. That the samples of stained or coated copper just produced by Mr. Nunneley as representing part of the results obtained by him in his analysis of the liver, rectum, and kidney of the deceased in April, 1862, when further tested by both on June 28, yielded no arsenic. 6. That although a trace of a substance resembling arsenic was found in the earth of the grave surrounding the coffin in which the deceased was buried, this could not account for the presence of arsenic (if present) in the viscera examined by Mr. Nunneley.'

Professor Taylor was afterwards sworn in the case of Mrs. Soames. He had examined the stomach, intestines, liver, lungs, and one kidney of the deceased, together with a quantity of fluid from the cavities of the bodies. He came to the

conclusion that there was no poison present which could be detected by chemical processes. This, however, was quite consistent with the fact that the death of the deceased may have been caused by some irritant vegetable poison. The theory of vegetable poisoning seems to have been suggested by the fact deposed by Mr. Whidborne, the Medical man who attended Mrs. Soames, that a man named Dixon, with whom the prisoner cohabited, had died previous to the illness of Mrs. Soames with all the symptoms of irritant poisoning, and that the prisoner had informed Mr. Whidborne that Dixon had been in the habit of taking colchicum for the relief of rheumatism. At this stage of the inquiry all comment upon the Chemical and Medical evidence would be improper.

CONFLICTING MEDICAL EVIDENCE AGAIN.

We never felt more thoroughly ashamed of the "Medical Witness" question than we do in reading the case of "Williamson *versus* the London and Brighton Railway Company." A respectable young man, of twenty-two, earning £150 per annum as a pianoforte-maker, had the misfortune to be injured in the collision which took place in the Clayton Tunnel on the 25th of last August, and sues the Railway Company for compensation. They pay £400 into Court, viz., two years' income and £100 for expenses, and the plaintiff claims more. He complains, at this distance of time, of pain in the back, inability to take exercise, muscular weakness and stiffness, constriction across the belly, slow pulse, and loss of sexual desire. His case was supported by the testimony of Dr. Burrows of Brighton, Mr. Marshall, Dr. Walshe, and Dr. Brown-Séquard, who stated their belief, on July 25, 1862, that there was congestion of the spinal cord; that the patient would probably recover slowly; or that he might never recover, or that he might become worse. On the other side were called Dr. Hall of Brighton, who saw the plaintiff at various times last year, and in particular noticed him in January walking so stoutly as to show there could be no disease of the spine. Mr. Adams, who had examined the patient some months ago, thought there were no symptoms of disease of the spine, but of "general irritation" of the spinal cord; he thought the patient probably worse now than when he had examined him, but still that he would probably get well in a year. At the last Assizes he thought that he would get well in six months. Mr. Skey saw no evidence of injury to any structure of the spine, and thought the blow had given rise to hysteria, and that six months would probably bring about recovery. Mr. Lawrence thought that it was a case of "considerable shake," and that there was no disease nor injury; he thought the patient would soon recover. In the course of his evidence he disputed the facts, and was reproved by the Judge. Mr. Hilton had come to the conclusion, from hearing the evidence, that the plaintiff had "not received any very serious or permanent injury, and would probably recover in a few months or a twelvemonth." The Judge, in summing up, expressed his disgust at the contradictions in the Medical evidence; and observed that, even supposing the plaintiff were endeavouring to deceive, it was hard to believe that four Medical men were in league with him, or that the evidence of four men who had seen him was not superior to that of three who had not. The Jury gave a verdict for the plaintiff for £1034.

Dentists need not have a Diploma in France.—In a country like France, in which a diploma becomes necessary for the exercise of almost every professional function, it seems somewhat strange that this need not be possessed by the Dentist. An examination of the state of the law, however, recently made in the *Gazette des Hôpitaux*, proves that although extraction of the teeth constitutes, to all intents and purposes, a Surgical operation, no diploma is required of those who undertake its performance.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE CALORIFIC AND VASCULAR NERVES OF THE SYMPATHETIC.

By M. CLAUDE BERNARD.

This Paper is the first of a series which M. Bernard is presenting to the *Académie des Sciences*, and has in view the demonstration that the vascular and calorific nerves are special nerves to be topographically and physiologically distinguished from the ordinary motor nerves. Having opened the spinal canal in dogs, he divided as they left the cord all the origins of the sacro-lumbar plexus (sometimes on one side and sometimes on the other) which supplies sensation and motion to the hinder extremity. The limb became completely paralysed, but no calorification or vascularisation was observed, the temperature on this side often, indeed, diminishing. When only the posterior and anterior roots were divided, corresponding abolition of sensation or of motion occurred; but in neither case was there any vascularisation or change of temperature in the limb. In a dog in which complete paralysis of the left hind leg was produced by division of the origins of the sacro-lumbar plexus, the sciatic nerve was afterwards divided. Its origin having been already divided, this subsequent section was not felt, and added nothing to the paralysis of motion and sensation that already existed; but vascular and calorific phenomena immediately followed, the temperature of the limb steadily rising until it was from 6° to 8° C. higher than that of the opposite one, and so continued until the death of the animal next day.

The experiment was repeated a great many times with exactly the same result. It is evident, therefore, that nerves influencing these functions must have become adjoined to the motor and sensitive nerves in the short interval between their issue from the canal and the point where the sciatic was divided. It is only the sympathetic, placed on the sides of the spinal column, which could thus become joined to these nerves; and M. Bernard, in another experiment, destroyed the ganglion of the sympathetic and its filaments, which lay upon the side of the fifth and sixth lumbar vertebræ, leaving the nerves of the sacro-lumbar plexus entirely intact. An excess of temperature in the limb was immediately observed, and during the three days the animal lived, the paw of the side operated upon was from 5° to 8° hotter than the other, —no paralysis whatever being present. The conclusion to be drawn is that there are are three distinct descriptions of nervous influence, — 1. The sensitive, due to the posterior roots of the sacro-lumbar plexus; 2. The motor or muscular, belonging to the anterior roots; and 3. The vascular and calorific, due to the sympathetic. — *Gazette des Hôpitaux*, No. 94.

EXCERPTA MINORA.

Pruritus Pudendi from Inversion of Hairs of the Labium.—Professor Meigs relates the case of a lady, aged 20, who, suffering severely from vulvar pruritus, had tried all the usual remedies without success. When he saw the patient he found the margins of each labium studded with long, stiff, straight hairs, like eyelashes, all of which were directed inwards, and kept up a constant irritation of the mucous membrane, rendering it red and hot, and producing intolerable itching. It was a case of real trichiasis, undescribed in the books; and the patient was effectually relieved by the nurse removing the hairs day by day by means of tweezers.—*American Journal of Medical Science*, April.

Nitric Acid in Pertussis.—Dr. S. W. Noble, as the result of his trials of nitric acid during an epidemic of pertussis, extols it as highly efficacious. He adds the acid to sweetened water in sufficient quantity to make it pleasantly sour, and directs the mixture to be freely drank. In this way he has given as much as a drachm within the twenty-four hours to a child six months old. The remedy materially shortens the duration of the disease.—*Ibid*, July.—[Our readers are aware that Dr. Gibb has a very useful and practical work on this remedy.]

Pumpkin-seeds in Tænia.—Dr. Patten, of Cincinnati, records four cases of tænia which were successfully treated by an emulsion of pumpkin-seeds; and he considers that this is one of the remedies which most deserves attention. It is innocuous, inexpensive, readily procured, and the least disagreeable of all the vermifuges. Its power of dislodging large frag-

ments of these *entozoa* has never been questioned, but it has not succeeded in every instance in destroying them. This results from the remedy having been too soon discontinued. By maintaining the treatment from four to six days (unless the head be discovered before among the fragments) success would doubtless result in all cases. The administration of castor oil during its use is not to be recommended, as the emulsion is itself sufficiently laxative in large doses, if a light diet be strictly enforced.—*Amer. Journ. of Med. Scienee*, July.

Treatment of Panaris.—Dr. Pockels states that compression of the brachial artery, either by means of the hand, the back of a chair, or a tourniquet, is a very useful procedure, at once relieving the pain, and hastening the course of the diseased process, or frequently cutting it short.—*Varges Zeitschrift*, Vol. xv., No. 3.—[Query: Has compression of the nerves any share in relieving the pain? We should prefer a sharp lancet to the tourniquet for whitlow.]

Anarcotine in Intermittent Fever.—Dr. Gardner, Assistant-Surgeon, Ghazepore, gives an interesting account of the trials he has made with this substance in 194 cases:—"We have in it a remedy which fails in only 3·6 per cent. of all cases treated, which, regardless of previous duration of the disease, taking one case with another, cuts short the fever before the occurrence of a third paroxysm, and that, too, with an expenditure on an average of only 22·7 grains to stop the fever, and 16·3 grains during convalescence. That it is equal to quinine I do not pretend to say, but that it has a claim to the next place in the rank of antiperiodics, I think is an undoubted fact, for I am not acquainted with any other drug which cures so rapidly, so surely, and with so little expenditure of the drug itself, at the same time being free from disagreeable effects in the majority of cases." Dr. Gardner adds that Dr. O'Shaughnessy reported upon anarcotine in similar terms many years ago, but probably from the expense of its production the use of the remedy was not pushed. Now, however, it can be produced in India cheaper than quinine is supplied, especially when morphia is also produced from the opium employed.—*Indian Annals*, No. 14.

Valerian Baths in Hysteria.—Convinced of the great value of valerian in the treatment of hysteria, M. Beau, in order to overcome the repugnance of patients to its taste, has for some years past been in the habit of prescribing it in the form of a bath with the greatest advantage: 125 drachms of the bruised dry root are infused for half an hour in a couple of quarts of boiling water, and the infusion is then added to an ordinary bath.—*Gaz. des Hôp.*, No. 69.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, July 27.

ON POISONING WITH UPAS TIEUTÉ.

Some time ago a gentleman of this city who is well known for his scientific ardour, received from Java a somewhat considerable quantity of the arrow-poison, upas tieuté, with which he determined to make experiments concerning its action in the animal economy. A more cautious or less enthusiastic person would probably have commenced his investigations on frogs or rabbits, but Dr. —— at once fearlessly subjected himself (or, as the Americans would say, "his own precious body") to the action of the poison. One afternoon he took three grains of the substance, which he found to have a very bitter and slightly saline taste. After having swallowed it, the Doctor felt more cheerful, and a headache which he had had passed off; on the other hand, a feeling of heaviness in the stomach supervened. He soon afterwards left his rooms and went out; and the first sign of the action of the poison having begun, was that on turning round the corner of a street and feeling a strong wind, he perceived a sort of stretching all along the spine. This was half an hour after he had taken the poison. An hour afterwards, on being about to take a cup of coffee, he suddenly felt a violent concussion of the whole body, succeeded by powerful stretchings of all the extremities; at the same time the head was drawn backwards. He endeavoured to speak, but could not open his mouth. This paroxysm soon ceased, but others followed rapidly, either spontaneously or after the slightest stimulus. Consciousness was not in the least disturbed. The fits were not painful, the respiration was not impeded, and the muscles remained quite flaccid after the fits. Swallowing was difficult, and the patient felt very weak. He then desired to be brought to the Charité Hospital, and on being carried down-stairs violent spasms came on; while in the cab which took him to the Hospital, he was quite free from them. He was transferred to the clinique of Professor Frerichs, where ipecacuanha and tartar emetic were at once given, as it was supposed that part of the poison might still be in the stomach. Copious vomiting ensued, accompanied by tetanic convulsions, spasm of the glottis and dyspnœa; but the latter ceased with the vomiting. Further convulsive fits followed either spontaneously or on touching the patient's body or the bed, or on suddenly directing a light to the eye. The pulse was 72, and there were no other morbid symptoms. The patient now took ten drops of laudanum every quarter of an hour, and after three such doses, he took fifteen drops every half-hour. Having thus altogether taken sixty drops he fell asleep. He perspired freely, and was repeatedly awakened by tension and convulsions of the muscles of the neck and the back; but on taking a few more drops, he soon fell asleep again, and remained so for twelve hours. On awakening the next morning he felt exceedingly weak; there was still some stretching in the muscles of the left side of the neck, but no spasms. The pulse was at 66. Swallowing was still impeded, and the urine passed off with difficulty. This was found to contain strychnia. The laudanum was then discontinued, and the patient merely took wine and easily digestible food. On the third day he was able to leave his bed, and on the sixth his health was quite re-established.

The poison was subjected to examination in the chemical laboratory connected with the Hospital. It was contained in a piece of bamboo-cane, and consisted of a coarse-grained reddish-brown substance, in which several shining crystals were seen. On putting some of it under the microscope, amorphous grains and small tetrahedral crystals were discovered. A small trace of this substance gave a strong reaction of strychnia, and it was found that in a hundred parts of upas, sixty-two parts of pure strychnia were contained, so that the three grains of upas taken by the Doctor were equivalent to about a grain and three-quarters of strychnia. Frogs and a dog, to which some of the poison was given, died in a short time. If woorara had been at hand, it would probably have been administered to the patient, although, on the whole, Professor Frerichs is disinclined to try it on patients, as we have until now no certain data as to the doses in which this powerful drug should be given. The effects of opium were in this case certainly very satisfactory.

GENERAL CORRESPONDENCE.

THE NEW GRAIN.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette* of May last there is a good article on the weights; but as it appeared at a time when the Act of Parliament had not been obtained, and before the new weights had been formally sent to the Medical Council, before the Executive Committee had demurred as to the weights, and the College of Physicians had passed a resolution objecting to the new grain, a further notice is, I think, required to express a decided opinion, if the Profession wish to avert the evil which seems imminent. The London College of Physicians have passed a resolution "that it is not desirable to introduce a new grain," and the Surgeons and Apothecaries would rather continue to use the old weights.

The pharmaceutical chemists have already expressed their opinion, at a special meeting convened for the purpose of considering the subject, and "they are strongly opposed to any change in the weights now used in Medicine, especially if such change should alter the value of the grain; at the same time, they deem it desirable to place side by side the equivalents of the English and metrical weights, as suggested by Mr. Squire." As the public can only be interested in having "prescriptions accurately prepared," and as this will be best done with such weights as Dispensers are thoroughly acquainted with, the question naturally arises, What necessity is there for this change, and why has the change been proposed by the Pharmacopœia Committee?

In answer, it may be observed that the troy, or as it is called, the Apothecaries' weight, has been employed to weigh

medicines from the earliest date, and was adopted by the London, Edinburgh, and Dublin Colleges until the year 1850, when the Dublin introduced, among other novelties, the avoirdupois weight, I suppose because the weights and measures would then the more nearly resemble each other in value; but this happens to be the case only with the ounce measure; for the drachm avoirdupois is exactly one-half the value of the fluid drachm, and the pound contains only sixteen ounces, whilst the pint contains twenty ounces; and even the ounce weight does not contain whole numbers of grains, being equal to 437·5 of troy or standard grains. Dr. Charles Wilson's idea of clipping the standard grain seems to have pleased both the Scotch and the Irish, for they have succeeded in influencing the Committee to adopt these nondescript weights to be used in the forthcoming British Pharmacopœia.

Your article of May favours a system of prescription in grains for all quantities under the pound of 7000 grains, which to my mind is not practical. Suppose you were to write for an aperient powder similar to Gregory's Powder, it would have to be written

thus:—	instead of
Pulv. Rhei.	
,, Magnesiæ, āā 480 grains	āā ʒj.
,, Zingiberis 366 ,,	ʒvj.

or, to save the number of figures, prescriptions would be written thus:—

Pulv. Rhei.
,, Magnesiæ, āā gr. D.
,, Zingiberis, gr. 375. M. in pulv. xlviii. divid.

I cannot see the use of enforcing the change of a system which, when changed, will be still imperfect, and must, ere long, be again changed. If the old grain is retained, there seems no alternative but to retain the scruple, drachm, and ounce now in use; and with these may be expressed all quantities practically required, either in prescriptions or in Pharmacopœia formulæ; we should thus be relieved of the trouble to remember whether the pound contains 16 ounces (present Irish) or 12 ounces (present London and Edinburgh). Mr. Squire, in his proposal for the weights to be used in the British Pharmacopœia (*Pharmaceutical Journal*, Vol. xviii. p. 570), advocates the Apothecaries' system now used by the London and Edinburgh Colleges, and shows how nearly parts of that system accord with the metrical: thus, 32 ounces very nearly weigh 1000 grammes, or a kilogramme; 1 drachm 4 grammes, there being rather more than 15 grains in each gramme. I will place the present weights side by side with the proposed weights, that they may be the better compared:—

Weights used in Great Britain.		Proposed Weights used in Ireland.	
480 grains	The ounce	437·5	grains
60 ,,	The drachm	54·7	,,
20 ,,	The scruple	18·2291666	,,
1 ,,	The grain	·911458333	,,

I will say nothing as to the dilemma we should be placed in with weights bearing the same name of different value. I may add, that I have just received from a Chemist travelling in Ireland a set of the Irish weights, and he says the new weights are very unpopular there; if, then, after ten years' use, they are not approved of, why inflict this change on England and Scotland? I am, &c.

P.

THE CONDUCT OF THE COLLEGE OF PHYSICIANS TO ITS LICENTIATES.

[To the Editor of the Medical Times and Gazette.]

Sir,—After having been some years in general practice, finding myself in easy circumstances, with no children, I determined to come to this city, in which I had some property, and retire from active work. But liking to add something of *dignitas* to my *otium*, I wished to become a Physician, and to pick up a few fees if they should fall in my way. I had some reasons for not choosing to get a Scotch diploma of M.D., one of which was that I had been in hot water for some time with one of the fraternity, and conceived that a Scotch M.D. was no better than an English Apothecary; moreover, it would not then have given me the legal status of an English Physician. Therefore I read up, and passed the three days' examination at the London College of Physicians, believing that along with the legal right to practise, their licence would give me the right to the title of Doctor. That was my aim. I never signed myself M.D., nor cared for it, but I did want to be called "Doctor," and for this submitted myself to examination, and paid between £50 and £60.

For some time all went well; but to my disgust (that is to say, if any of the misdeeds of a Medical corporation could excite such an emotion,) I found amongst a heap of letters awaiting me on my return from a tour last year, one directed thus:—

"To ——— Esq., Physician."

This was an invitation from the College to a *soirée*. Before that their Beadle or Secretary had always addressed me as Dr. ———.

I bring these charges against the College: viz.,—that Physicians who were not graduates, always of old custom were entitled "Doctors;" that the College officials with whom I communicated before my examination told me by word of mouth that I should be called "Doctor;" and that they now defraud me of that title which I bought and paid for.

Let me quote from the valuable parchment document the licence which I received when I parted with my roll of fat and greasy country five-pound notes, which the College officials counted with hungry eyes. It runs thus:—

"Know all men that we, John Ayrton Paris, M.D., President of the College of Physicians, with the consent of the Fellows of the same, by the authority committed to us by our Lord the King and the Parliament, have examined and approved the most accomplished man —— ——, and have granted to him free power and licence, both of teaching and of practising the science and art of Medicine; and have granted to him, to enjoy within the limits of our authority, the highest *honours and* TITLES *and privileges*, whatever are used to be granted to Physicians, here or elsewhere." The Latin words are:—"Et ei concessisse liberam facultatem et licentiam, tam docendi quam exercendi scientiam et artem medicam; eidemque summis *honoribus et* TITULIS *et privilegiis*, quæcunque hic vel alibi medicis concedi solent, intra auctoritatis nostræ limites frui, concedisse."

Now, Mr. Editor, let me ask any man of common experience, what title is used to be given to Physicians? What title did the Registrar of the College address me by in the College after examination? What title used they to put on the envelopes of letters addressed to me?

It is well known that there have from time to time been Physicians of eminence, who, from some accident, were not graduates. No one, I believe, ever insinuated that they were ignorant, or ill-bred men, but by some chance their education had so shaped itself that they had not an M.D. degree. Let me mention the late well-known Dr. Darling, L.R.C.P., of Russell-square; Henry Davies, F.R.C.P. Lond., (began life as Army-Surgeon, then practised midwifery in London, and was Fellow of the College of Physicians); C. Metcalfe Babington, F.R.C.P. (late Physician-Accoucheur to Queen Charlotte's Lying-in Hospital.)

I trust the *Dii manes* of these gentlemen will look without displeasure on this feeble attempt to vindicate the rights of their order. But I ask how did the College of Physicians officially address these gentlemen? Did it give them the title which is wont to be conceded to Physicians or not? If it did, with what face can it refuse that title to me?

I will not presume to allude to any living men, but I will take the liberty of mentioning the case of gentlemen who are graduates, but not M.D.; who, *ex. gr.*, are M.B. or M.A. Does the College call them Doctor? No clergyman who is B.D. is called Doctor. How then shall the College of Physicians call a M.B. or M.A. Doctor, except it be that Doctor is the title which is universally used to be given to Physicians as Physicians? It is the "Titulus qui hic et alibi Medicis concedi solet."

I affirm, then, that the title of Doctor belongs to a Physician, and that the College of Physicians of old custom gave that title; that the College of Physicians knowingly sold me that title; and now by refusing to give it, has lost its character for upright dealing.

I am sorry thus to have to speak of a College which I always used to uphold. When a consultation was needed, I always preferred on principle gentlemen who were Licentiates, as being the only legal Physicians. Only they who practised in certain districts thirty-five years ago can tell how strong the feeling was against Scotch M.D.'s or Surgeon Apothecaries who entered themselves Doctor. Yet I see now that I should

have saved money if I had gone with the mob, and not trusted to the honour which I supposed to be a characteristic of the ancient College of Physicians of London.

I am, &c.

August 13. M.R.C.P. Lond.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 2.

DR. TYLER SMITH, President, in the Chair.

A Paper, by Dr. M'CLINTOCK, was read on

TURNING IN CASES OF DISPROPORTION.

This paper embodied the results of seventeen cases which came under the care of Dr. M'Clintock in the wards of the Dublin Lying-in Hospital. In each of them turning had been performed, at various periods after the commencement of labour, on account of disproportion between the head and pelvis. In none of these cases was there any considerable deformity of the pelvis, though the obstetric histories of the women clearly showed that there must have been some slight narrowing of the superior strait. More or less difficulty was experienced in every instance in bringing down the head into the pelvis, and twice craniotomy had to be resorted to. On one occasion the parietal bone (that next the sacrum) was fractured in pulling the head through the the brim of the pelvis. With one exception, all the patients were deeply chloroformed before the operation of version was undertaken. Nine of the children—viz., four boys and five girls—survived birth, though all were alive when the operation was commenced. Of the eight children dead born, five were boys and three girls. The heart continued to pulsate for several minutes after birth in some of the children recorded as "dead born," Dr. M'Clintock not considering a child as saved by an obstetric operation, nor recording it amongst the "live births," unless respiration be fully established. All the women recovered satisfactorily but one, who died of puerperal fever, of which some cases had occurred at the time in the Hospital. In reviewing these cases, Dr. M'Clintock expressed his opinion that the operation was not so favourable for the child as some of its advocates had supposed, and that it was only when the amount of pelvic narrowing was very slight that we could reckon with any degree of certainty upon saving the fœtus. He would not, therefore, recommend the operation in preference to the induction of premature labour in cases where an option was left us, and a decided contraction of the pelvis was known to exist. At the same time, that it was a valuable resource in cases of this class which may have reached the full period of pregnancy, he proved by the fact, that of eighteen boys born to the above patients, and delivered by other modes than turning, only two were alive at birth; whereas four out of the nine delivered by turning survived their births. Looking to the interests of the mother, the author of the paper considered that the operation of turning in the particular class of cases under notice had stronger claims; for not only did it abridge the labour process, which in itself was no small advantage, but it averted the possible contingencies of craniotomy, high forceps operation, or even of rupture of the uterus. Its great mechanical advantage, Dr. M'Clintock thought, was due, not to the position of the head nor its greater compressibility when coming through the pelvis with the base foremost, but to the unlimited amount of force which we can bring to the aid of the uterus by traction on the body of the child.

Dr. BARNES expressed his thanks to Dr. M'Clintock for having brought this important practical question before the Society, the more especially as his paper was based on so broad a foundation of facts. Dr. Barnes hoped that, as one who had some personal experience of the operation, he might without impropriety respond to the invitation of the President. He observed that the revival of the application of turning to certain cases of disproportion constituted one of the greatest merits rendered by Professor Simpson to obstetric practice. He felt he was justified in calling it a revival, for he thought there was abundant evidence that the great Accoucheurs who practised one and two hundred years ago were accustomed to trust to this operation much more freely than was now done. To this course Dr. Barnes said they were almost compelled by the want of those instruments with which in our day we were enabled to encounter cases of disproportion. Having no forceps, and but inefficient instruments of any kind, they were forced to trust to their unarmed hands. With their hands they extricated themselves and their patients from many difficulties, in which we resorted to the perforator or other instrumental aid. He entertained a strong conviction that we should return to a more sedulous cultivation of the hands as an obstetric instrument, and that material improvement in obstetric practice would result. The extension of the operation of turning as a substitute for more hazardous operations, and as a means of extricating patients from a variety of dangers, was especially to be desired. The particular application of turning to cases of disproportion was one of which he had formed a favourable opinion. At first, after Dr. Simpson's proposition to revive it, he distrusted its utility. He tried it by the favourite test of statistics. But he had since learned that we possessed no such statistics as would serve for the determination of any great question in obstetric practice. He had put the question fairly to the test of experience. He might state the general result of his observations as follows:—Disproportions might be divided into three degrees:—First, there were slight disproportions, giving rise to protracted labour, which admitted of being relieved by the long forceps; but the forceps must be not only long, but double-curved, well-made, and capable of being worked by the two hands. There was then a second degree, or class of cases, lying between the class capable of relief by the forceps, and the third degree, or class, in which craniotomy was necessary. This second or intermediate degree it was that properly admitted of treatment by turning. Beyond the third degree might be added a fourth, in which the Cæsarean section was the resource. It was thus seen that the operation of turning stood between the patient and craniotomy, promising to avert the necessity, in some cases, of resorting to that repulsive operation. It did not appear that the disproportion in most of Dr. M'Clintock's cases was great. It seemed probable that in some of them the long forceps might have been successful. Where there was only slight pelvic contraction, he (Dr. Barnes) thought it right to try the forceps first, and failing in this manner, to proceed to turning. It was true that the practice was necessarily experimental. Dr. M'Clintock had fairly said that we could not determine beforehand the size of the child's head. We could not, therefore, tell beforehand what the degree of obstruction would be. But if the child were born dead after turning, we had at least the satisfaction of reflecting that the child was not sacrificed of necessity by the mode of operating, as was the case in perforation. If it perished, it was because it had to pass through a pelvis whose condition was incompatible with the birth of a living child. He did not assent to the opinion of Dr. M'Clintock, that the head did not come through the pelvic brim more easily when drawn through base first, than in the ordinary mode of entry by the crown. He thought the passage much facilitated. It might seem strange, but he had seen reason to believe, that in these cases of disproportion the child had a somewhat better chance of being born alive than after turning under ordinary conditions. The common cause of disproportion was slight projection of the promontory of the sacrum; on either side a marked hollow was preserved, in one or other of which the cord would lie protected. A very valuable application of the practice was found in the completion of delivery after perforation. In cases where much difficulty had been experienced in extracting the head by the crotchet and craniotomy-forceps he had, on several occasions, delivered with ease in a few minutes by turning. Much labour to the Practitioner, exhaustion and distress to the patient, were thus saved. He would make one more remark; it was, that although great force had occasionally been necessary in extracting, he had never seen the smallest injury result to the mother. The patients had recovered as speedily and as well as after ordinary labours. Dr. Barnes concluded by again expressing his sense of the high value of Dr. M'Clintock's communication.

Dr. KIDD thought that no comparison could be drawn between the statistics of former times and the present, because the influence of chloroform must be taken into account.

Dr. BRAXTON HICKS considered that the cases brought forward by Dr. M'Clintock could scarcely be fairly quoted

as examples of the value of turning over the use of the long forceps in either delivering the child or in saving its life. Those cases only could be admitted as absolute proof on that point in which the forceps had been applied, and had failed to bring the head through, but where turning had been subsequently resorted to with success. Dr. Hicks instanced a case which occurred to him recently, in which the long forceps failed to bring the head through the brim, but where, by version, the child was delivered after some detention, its heart pulsating for an hour and a-half after, inflation of the lungs being continued till it ceased. In this case the forceps failed. Turning gave the child a chance, to say the least, of life, which the only other treatment left—namely, perforation—could not.

Dr. Graily Hewitt had an observation to make with reference to the difficulty the author of the paper had alluded to of effecting the transit of the body of the fœtus, after turning, where only one foot had been brought down. He believed that the difficulty in question was not confined to cases in which the head had originally presented, as the author seemed to infer was supposed to be the case; and that, on the contrary, the same difficulty was found in other cases—in transverse presentations, *e.g.* He had met with a case which bore out this view of the matter. It had been a sort of maxim that the bringing of one foot down was sufficient. He thought that the erroneousness of this teaching should be pointed out, and the necessity of bringing down both feet, in cases of turning, inculcated. In common with other speakers, he begged to express his thanks to the author for the very valuable contribution he had made to obstetric science in the paper now read to the Society.

Dr. M'Clintock replied at some length to the observations of the various speakers, and the meeting then adjourned.

OBITUARY.

THE LATE JOHN MEDD, ESQ.

It is our melancholy duty to record the death of John Medd, Esq., of the Mansion-house, High-street, Stockport, Senior Surgeon of the Stockport Infirmary. The lamented deceased was the youngest and sole surviving son of the late William Medd, Esq., of Haggate-hill, Cleveland, in the North Riding of Yorkshire, whose grandfather, Mr. John Medd (or Meed, as the name was often spelt and pronounced at that time), had left Essex, and was settled in Bilsdale, in Yorkshire, in the year 1715. Mr. Medd studied Medicine both in London and Edinburgh, becoming L.S.A. in 1825, and M.R.C.S.E. in 1826, and practised first at Leyburn, in Yorkshire. Thence he removed to Stockport, in 1830, having purchased the practice of Mr. Edward Lacy, Surgeon, of the Great Underbank. In 1844 he received the honorary diploma of Fellow of the Royal College of Surgeons.

Though quite a stranger in Stockport, his undoubted skill in his Profession, and his unremitting attention to his patients, soon introduced him to an extensive practice amongst the principal inhabitants of that borough and the gentry of the surrounding district. Nor was his private character less sterling than his Professional attainments,—he was a kind husband, an indulgent father, and a warm friend. Indeed, his heart was so generous that the whole theory of his life, rigidly reduced to practice, was to ensure the greatest happiness of the greatest number. These are words of high commendation, but they are strictly true. His death was occasioned by a complication of diseases induced by exposure and fatigue in visiting his numerous patients, whom no personal considerations or inclemency of weather ever prevented him from visiting, when he ought to have been "nursing" himself by his own fireside.

Mr. Medd leaves behind him, to mourn their bereavement, a widow and six sons, of whom the Rev. Peter Goldsmith Medd, M.A., Fellow, Tutor, and Dean of University College, Oxford, is the eldest. Mr. W. H. Medd, Surgeon to the Stockport Infirmary, and partner with his late father, and Dr. John Medd, of Manchester, are already in practice. His fourth son, Mr. G. T. Medd, entered the Royal Navy at thirteen, and having served in the West Indies and the Mediterranean, as well as in the Chinese and Crimean wars, where he gained two medals, attained the rank of Lieutenant at an unusually early age. His two youngest sons (of whom the elder has graduated in double honours) are members of the University College, Oxford.

Of the true interests of the Stockport Infirmary he was always a warm and consistent supporter, having, in addition to the uniformity of his zeal, been instrumental in raising considerable sums of money towards its funds from his large and influential circle of friends.

The high and distinguished sense of his invaluable services to the Institution was evinced by the following vote of condolence to the family, passed at the weekly meeting of the Board of the Infirmary.

Resolved,—"That this Board receives the announcement of Mr. Medd's death with feelings of profoundest regret and surprise. Only a few short weeks ago he was with us at this Board, in apparent health and strength, likely, in all probability, for the enjoyment of many years of life and usefulness. But the inscrutable dispensation of an All-wise Providence has fallen upon him, and he is 'gathered to his fathers.' The loss sustained by his death will be heavily felt in all quarters. To his family it is irreparable; they have lost one who, as the head of a family, was distinguished. This Institution has lost its Senior Surgeon, who, for nearly thirty years, has discharged the duties of his responsible office with an ability, intelligence, and success seldom equalled; and, beginning from a period when the duties were more onerous, inasmuch as the Staff had to visit the home patients, the minutes of the Charity contain no record of a complaint as to his attendance; and few men were more distinguished for the accurate and conscientious discharge of his duty to the patients under his charge. The memory of the past, when reviewed from the sad present, only shows how much he was in earnest in all he did, and increases the already high appreciation entertained of his great abilities and unflagging industry, as well as the extent of the loss which this Charity and the poor have suffered by his demise. To Mrs. Medd and the family, the Board would respectfully offer their sincerest condolence and sympathy."

LEGAL INTELLIGENCE.

A "SUB M.R.C.S." AT ORMSKIRK.

We abridge the following from the *Ormskirk Advertiser* and the *Southport Independent*:—

"At the Ormskirk Police Court, on Friday, the 8th inst., before H. Gaskell, Esq., J. H. Wrigley, Esq., and Captain Webb, Mr. Josiah Archer Bowen, of Bretherton, was summoned by Mr. Charles Price Symonds, Surgeon, at the instigation of the Medical gentlemen of Ormskirk and its vicinity, for the following offence: 'That he did, unlawfully, wilfully, and falsely, pretend to be and take the name and use the title of a Surgeon, by giving a certificate of the death of Mary, daughter of William Whittle, and writing thereon, under his name, the letters "Sub. M.R.C.S. Eng.," implying that he was recognised by law as a Surgeon.'

"Mr. Torr (barrister, Manchester), instructed by Mr. Parr, Ormskirk, prosecuted; and Mr. Husband, solicitor, Liverpool, defended.

"Mr. Torr, in opening the case, said the Act of Parliament under which the summons was taken out against the defendant was the 21st and 22nd Vic. cap. 90, which enacted that,—'Any person who shall wilfully or falsely pretend to be or take or use the name or title of a Physician or Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or Apothecary, or any name, title, addition, or description, implying that he is registered under this Act, or that he is recognised by law as Physician, or Surgeon, or Licentiate in Medicine and Surgery, or Practitioner in Medicine, or an Apothecary, shall, upon a summary conviction of such offence, pay a sum not exceeding £20.'

"The defendant was the son of a gentleman, who was a Dissenting minister, and devoted the latter portion of his life to the study of Medicine, but he confined himself to the milder and simpler medicines made from the beautiful flowers of the field, which would not kill any one were he to swallow a basket full of them. By that little bit of pedigree they might, perhaps, judge of what sort of a breeding the defendant had had. The father taught the son the skill of Medicine, such as he himself had acquired. The defendant commenced business under his father's roof, with the herbs

of the field for his medicines, and at length he cherished a desire to become a member of the recognised Profession of Physic. He attended certain classes in Liverpool, in all probability with great benefit to himself; and went to London in May last, but whether he studied there at all, or for any length of time, he could not say. He did submit himself to an examination, and having done so he must have presented certain credentials that he had gone through a certain course of study; and he (Mr. Torr) had been told, whether through nervousness or inability, he could not say which, that he had the misfortune to fail in showing that he was qualified to act as a Surgeon. He would be able to show that in March preceding that date he had the effrontery to put himself forth as a Member of the Royal College of Surgeons. In March last a man named John Whittle had a grand-daughter who was very ill, and he called in to her assistance the defendant. He attended upon her for some time, the last time being a week before her death. When she died it became necessary that the certificate of a Medical attendant should be presented to the registrar of the district. A young man was sent to the defendant for the certificate. The certificate was written and signed by the defendant. Thus the defendant had misled a parochial officer, and got him to receive from an unauthorised person a certificate of the death of the deceased. He had not only got the registrar to receive the certificate, but had signed it.

"'I hereby certify that Mary, daughter of William Whittle, of Burscough, aged 20 years, died yesterday, the 26th inst., from albuminuria, and that she has been duly attended to. As witness my hand this 27th day of March, 1862.

'J. Archer Bowen, Sub M.R.C.S. Eng.'"

"Now, he (Mr. Torr) was at a loss to know what on earth was meant by the word 'sub.' If the defendant meant that he was a member of the Royal College of Surgeons of England, he (Mr. Torr) was at a loss to know why he should prefix the title with the word 'sub.'

"John Whittle then proved the attendance of the defendant on his granddaughter, his payment by 'ready money,' the child's death, and the writing the above certificate by defendant. Mr. Sumner, the registrar, proved the receipt of the certificate. Similar attendance and certificate after death were proved in the case of a boy named Hunter. The registrar wrote the word 'certified' after the entries in these cases. He said, 'I am instructed to write "certified" when the death is certified by a Medical man or qualified Practitioner.'

"Mr. Torr: Do you, as a matter of practice write the word 'certified' if the death is not certified by a Medical man?

"Sumner: No; I register the death according to the statement of the informer, and write the words 'not certified.' I wrote 'certified' because the certificate sent, as I conceived, was by a qualified Medical Practitioner.

"The clergyman who performed the funeral gave similar testimony. There was much discussion as to the possible meaning of the epithet 'sub' which was put before M.R.C.S. For the defence it was urged that these words were 'rubbish,' and were not intended to imply that the defendant was a registered Practitioner; and witnesses were called who had known him all their lives, and swore that they thought the words 'Sub M.R.C.S.' intended to convey the idea that he was a Medical student. The bench, after consideration, convicted the defendant in the full penalty in one case, £20, with costs, which amounted to £25 1s. 10d. besides.

"On Monday last Mr. Bowen appeared before the bench of magistrates at Southport, and entered into recognisances, together with two sureties, to prosecute an appeal against the above decision in the Court of Queen's Bench."

Births and Deaths in Berlin during 1861.—During the year 1861 the number of births amounted to 20,777 (10,704 boys and 10,073 girls), and that of the deaths to 15,177 (7981 males and 7196 females), consequently giving a balance of 5600 individuals towards the increase of the population of the city. This population at the end of 1861 amounted to 547,290 souls, viz., 524,945 civilians and 18,540 soldiers and their connexions; so that during that year there occurred 1 birth for every 26 inhabitants, and 1 death for every 36. Among the births there were 3355 (1775 male and 1580 female) illegitimate children, *i.e.*, 1 illegitimate in 6·19 births. Among the deaths were comprised 972 (552 male, 420 female) infants born dead, 267 (154 male, 113 female) being illegitimate. Twins occurred in 273 instances, and triplets in three instances.—*Preeess. Med. Zeit.*, No. 26.

EXAMINATION AT THE ARMY MEDICAL SCHOOL, FORT PITT, CHATHAM.

(*From Friday, August* 1, *to Thursday, August* 7, 1862.)

I. Military Surgery.

Professor THOMAS LONGMORE, Deputy Inspector-General.

1. Classify concisely the varieties of gunshot injuries of the bones and articulations of the lower extremity, from the hip-joint downwards, according to their more important distinctions, arising from situation, kind of injury, and neighbouring complications. Specify the treatment of each variety, confining yourself to the question of amputation, resection, or conservation, and state briefly your reasons for the treatment adopted. [It is to be understood that you have only the resources ordinarily available in field practice.]

(The reply to this question may be arranged in a tabular form if preferred.)

2. Describe the method of examining a recruit ordered in the Medical Regulations, and enumerate the chief points to which your attention must be directed in performing this duty.

3. Describe the causes, both predisposing and direct, with their probable modes of action, and the characteristic symptoms, of Hospital gangrene. (Three hours allowed.)

II. Military Medicine.

Professor WILLIAM CAMPBELL MACLEAN, M.D., Deputy Inspector-General.

1. Give a definition of typhus fever, with

(*a.*) A description of the distinctive symptoms of the entire form.

(*b.*) The circumstances under which it arises in armies.

(*c.*) The measures to be adopted to prevent such an outbreak, and to restrain its propagation.

2. Describe suppurative inflammation of the liver.

(*a.*) Anatomically, including a description of the modes and points of outlet of the pus.

(*b.*) Etiology of the disease.

(*c.*) Symptoms, general and special.

(*d.*) Diagnosis.

(*e.*) Outline of treatment.

3. Give the best account you can, judging from your own observations in the Medical wards of Fort Pitt, of the prevailing diseases in the British Army, distinguishing those arising in the course of

(*a.*) Home, and

(*b.*) Tropical service,

with any suggestions you may have to offer as to their causes, and the best means of preventing those under class (*a*). (Three hours allowed.)

III. Hygiene.

Professor EDMUND ALEX. PARKES, M.D.

1. What are the chief reasons which have been brought forward in support of the view that malarious fever, typhoid fever, and cholera may occasionally be propagated by water used as drink? How would you examine the water for organic matter, and how would you endeavour to remove it?

2. What are the physiological effects of exercise? How much exertion can a man be called upon to undertake in a day without injury to his health? What are the results of excessive exertion? What measures of previous training, diet, regulated intervals of rest, etc., would you recommend for men who are about to be called on to undergo sustained exertion for a long period, as, for instance, in a campaign?

3. What are the several modes of determining the dew-point? Calculate the dew-point, elastic tension, and weight of vapour in a cubic foot, when the dry bulb is 53·4 and the wet bulb 49·5.

4. What are the principles of Hospital construction?

5. State, in general terms, what has been the amount of sickness and mortality among the troops in the West Indies, in former years and at present; what have been the principal causes of mortality, and what should be the chief points to be attended to in the prevention of malarious fevers, yellow fever, and dysentery. (Three hours allowed.)

IV. Pathology.

Professor WILLIAM AITKEN, M.D.

1. Name, and describe briefly, and indicate site or distribution of the minute glands, which compose, or are found in, the mucous membrane of the alimentary canal.

2. Describe the anatomical signs of true dysentery as seen after death; mention the circumstances under which the typical forms or signs of dysentery are liable to be modified or changed, and the lesions complicated or rendered more dangerous to life.

3. Describe the anatomical signs of typhoid fever, as seen after death, describe the various conditions of lesions in which the small intestine may be found, and state the probable modes by which the morbid growth or deposit in and about the glands is eliminated.

4. Enumerate the circumstances under which death may ensue in cases of enteric (typhoid) fever.

5. During what states of the intestinal lesion may perforation of the gut or peritonitis be most likely to happen in cases of typhoid fever?

6. State the age at which cases of enteric (typhoid) fever are most frequent. (Three hours allowed).

PRACTICAL COURSE.

I. AND II. MILITARY SURGERY AND MEDICINE.

Make an examination of the case of——(rank)——(name)——(regiment). (Twenty minutes allowed for the examination. Written notes permitted to be taken.)

You are required to write concisely a history of the case, your diagnosis, prognosis, the probable effects of treatment, and the influence of the disease (or injury) on the man's fitness for service as a soldier. (Half an hour allowed for this description.)

III. HYGIENE (First Day.)

1. Water.—Describe the physical properties. Examine qualitatively for the principal constituents. Determine the amount of chlorine.

2. Examine specimens of lime-juice for acidity with a standard alkaline solution and with carbonate of soda.

3. Determine the amount of alcohol in two samples of beer by Mulder's process. Determine the amount of acidity.

4. Describe the physical characters and the microscopic appearances of the specimens of coffee or of flour placed before you. (Four hours allowed)

(Second Day.)

1. Describe the physical properties of, and examine under the microscope, two samples of milk.

2. Examine for acidity, and describe the physical properties of, two samples of beer.

3. Determine the amount of chloride of sodium in a given weight of salt butter.

4. Examine microscopically two specimens of adulterated and pure coffee and chicory. (Four hours allowed.)

IV. PATHOLOGY.

1. Demonstrate the structural elements, and state briefly what you demonstrate; also the morbid conditions (if any) which the structural elements show in the preparation given you.

2. Describe the lesions which appear to the naked eye in the two specimens of intestine on the table.

3. Determine the magnifying powers of the lens in the two microscopes, numbered 1 and 2. (Three hours allowed.)

TESTIMONIAL TO THE RESIDENT MEDICAL OFFICER OF THE BUCKS INFIRMARY.—At the last Annual Meeting of the Governors of the Bucks Infirmary, which took place on Wednesday, August 6, the sum of £30 was voted to Mr. M'Cormick, the Resident Medical Officer, as an acknowledgment of his services during the erection of the new building.

THE FIGHTING BEFORE RICHMOND.—"The enormous amount of killed and wounded in the terrible week of battles in the army before Richmond, fearfully demonstrates the fatality of the modern implements and projectiles of warfare. Until we can know more definitely the fate of *twenty thousand* of our brave soldiers, and can also know the actual number of the enemy's forces, we are forced to the horrifying conclusion that full *forty per cent.* of all who engaged in the first two day's conflict on either side, are to be numbered among the killed and wounded, and that after the loyal forces gained a more advantageous position, the massed legions of the rebels were mowed down at the rate of *sixty per cent.* of their entire strength. Never since the days of Austerlitz and Waterloo has Surgery found such a bloody field."—*American Medical Times.* [Neither the fields of Austerlitz nor Waterloo were as bloody as represented above, while the supply of Surgeons and appliances was infinitely more efficient.]

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The name of the following gentleman was omitted from the list of gentlemen who passed the Examination last week:—

W. Johnstone Irvine, Galgate, Lancaster.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 14, 1862:—

Joseph Brownridge, Hull; Walter Henry Cope, Buckingham-street, Strand; John Quiller Couch, Polperro, Cornwall; Richard Lloyd Robins, 12, Church-row, Marlboro'-road, Dalston.

APPOINTMENTS.

BARKER.—Edward Robert Barker, M.R.C.S. Eng., has been appointed Assistant-Medical Officer (a newly created appointment) to the North Wales Counties Lunatic Asylum, Denbigh.

BENDALL.—James Bendall, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the West Monckton District of the Taunton Union, Somersetshire, *vice* Samuel Farrant, M.R.C.S. Eng., L.S.A. Lond., whose term of office has expired.

BUCKNILL.—John Charles Bucknill, M.D. Univ. Lond., F.R.C.P. Lond., the Superintendent of the County Lunatic Asylum at Exminster, Devon, has been appointed Inspector under the recent Lunacy Act.

BURNIE.—Thomas Burnie, L.R.C.P. Edin., L.R.C.S. Edin., has been elected Resident House-Surgeon to the Birmingham and Midland Free Hospital for Sick Children, *vice* William Michael Whitmarsh, M.R.C.S. Eng., L.S.A. Lond., resigned.

CHAMBERS.—Thomas King Chambers, M.D. Oxon., F.R.C.P. Lond., has been appointed Physician to the New Lock Hospital, Dean-street, Soho.

COULSON.—Walter John Coulson, F.R.C.S. Eng. (exam.), has been appointed one of the Surgeons in charge of Out-patients, New Lock Hospital, Dean-street, Soho.

GASCOYEN.—George Green Gascoyen, F.R.C.S. Eng., has been appointed one of the Surgeons in charge of Out-patients, New Lock Hospital, Dean-street, Soho.

LANE.—James Robert Lane, F.R.C.S. Eng. (exam.), has been appointed one of the Surgeons in charge of In-patients, New Lock Hospital, Dean-street, Soho, and also at the Paddington Hospital and Asylum for Female In-patients.

LEE.—Henry Lee, F.R.C.S. Eng. (exam.), has been appointed one of the Surgeons in charge of In-patients, New Lock Hospital, Dean-street, Soho, and also at the Paddington Hospital and Asylum for Female In-patients.

LOCKING.—John Locking, L.R.C.S. Edin., M.D. Univ. St. And., has been re-elected Medical Officer and Public Vaccinator for the Tealby District of the Caistor Union, Lincolnshire.

LYALL.—David Lyall, M.D. Univ. King's Coll. Aberd., L.R.C.S. Edin., has been appointed Staff Surgeon to the Royal Dockyard, Pembroke, *vice* Thomas Frazer, M.D. Univ. Glasg., L.R.C.S. Edin., Staff Surgeon, R.N., appointed to Devonport Dockyard.

OKELL.—George Okell, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Over District of the Northwich Union, Cheshire, *vice* Thomas Wilson, L.R.C.S. and L.M. Edin., resigned.

PARSONS.—Dr. J. Parsons has been elected Resident Medical Officer to the Clifton Dispensary, *vice* Robert Watts, M.R.C.S. Eng., L.S.A. Lond., resigned.

PHILLIPS.—T. Bacon Phillips, M.D. Univ. Aberd., has been appointed Consulting Physician to the London and Brighton Railway Provident Society.

PRATT.—Edward Pratt, M.R.C.S. Eng., and L.M. L.S.A. Lond., has been elected a Surgeon to the Barnstaple and North Devon Infirmary.

PYLE.—Thomas Thompson Pyle, M.D. Univ. Durham, M.R.C.S. Eng., L.S.A. Lond., has been elected one of the Surgeons of the Leaham Harbour Infirmary, Co. Durham, *vice* Reginald Orton, M.R.C.S. Eng., L.S.A. Lond., resigned.

SMITH.—Charles Sharp Smith, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Fulbeck District of the Newark Union, Nottinghamshire, *vice* William Newman, M.D. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., resigned.

TOMLINSON.—Philip Richard Tomlinson, M.R.C.S. Eng., has been appointed Assistant House-Surgeon (a newly created office) to the West of London Hospital and Dispensary, Hammersmith.

WILLIAMS.—Philip Henry Williams, M.D. Edin., M.R.C.P. Lond., has been re-elected Secretary of the British Medical Association.

DEATHS.

BUTTERY.—July 9, at Trincomalee, Mr. J. G. Buttery, Navy Medical Dispenser, aged 41.

CHEETHAM.—August 30, 1861, at Clifton, near Picton, New South Wales, George Cheetham, M.R.C.S. Eng., formerly of Stalybridge, Lancashire.

HARNDEN.—July 29, of yellow fever, New Calabar River, West Coast of Africa, Mr. J. H. Harnden, late of Macclesfield, Surgeon of the *Ethiopian*, of Liverpool.

JONES.—August 8, W. Jones, of Lichfield-street, Burton-on-Trent, M.D., Deputy Inspector-General of Hospitals, on half-pay, aged 79.

NICOL.—August 13, George Jaffray Nicol, of Belmont-street, Aberdeen, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., one of the Physicians to the Royal Infirmary, Aberdeen.

Tanquerel des Planches.—M. Tanquerel des Planches has just died, at the age of 53, on his estate near Mayenne, where he had retired from practice since 1848. He was the author of a classic work on "Lead Colic," to which the prize of the Institute was adjudged, and which has been translated by Dr. Dana, an American Physician.

LONDON GAZETTE.

Angnst 15.

City of Edinburgh Artillery Militia.—Charles Dyeer, Esq., M.D., to be Surgeon, *vice* Livingstone, resigned; dated August 8, 1862.

Hertfordshire Militia.—Lyttleton Frederick Osbaldeston, Gent, to be Assistant-Surgeon; dated August 11, 1862.

Edinburgh County or Queen's Regiment of Light Infantry Militia.—Her Majesty has been graciously pleased to accept the resignation of the Commission held in this Corps by Assistant Surgeon Charles Dyeer; dated Angnst 2, 1862.

Augnst 18.

2nd Regiment of Dragoon Guards.—Assistant-Snrgeon John James Chappell, M.D., from the 48th Foot, to be Assistant-Snrgeon, *vice* Andrews, appointed to the Staff; dated August 19, 1862.

3rd Dragoon Guards.—Assistant-Surgeon Richard Thomas Golty Catton, from 35th Foot, to be Assistant-Surgeon, *vice* White, appointed to the Staff; dated Angust 19, 1862.

20th Foot.—Surgeon Edward Howard having completed a period of twenty years' fnll pay service, to be Surgeon-Major under the provisions of the Royal Warrant of October 1, 1858; dated April 29, 1862.

35th Foot.—Staff Assistant-Surgeon Nathaniel Alcock to be Assistant-Surgeon, *vice* Catton, appointed to the 3rd Dragoon Guards; dated Augnst 19, 1862.

48th Foot.—Staff Assistant-Surgeon Thomas Maunsell to be Assistant-Surgeon, *vice* J. J. Chappell, M.D., appointed to the 2nd Dragoon Gnards; dated Angnst 19, 1862.

91st Foot.—Surgeon Miah William Murphy having completed twenty years' full pay service, to be Surgeon-Major under the provisions of the Royal Warrant of October 1, 1858; dated July 22, 1862.

Rifle Brigade.—Staff Assistant-Surgeon John Walters, M.B., to be Assistant-Surgeon, *vice* Williams, who resigns; dated August 19, 1862.

Medical Department.—Deputy Inspector-General of Hospitals, Thomas Atkinson, M.D., who retires upon half-pay, to have the honorary rank of Inspector-General of Hospitals; dated Angnst 19, 1862.

Assistant-Surgeon Charles John White, from the 3rd Dragoon Guards, to be Staff Assistant-Surgeon, *vice* Mannsell, appointed to the 48th Foot; dated Angust 19, 1862.

1st Isle of Man Artillery Volunteer Corps.—Thomas Sale, M.D., to be Assistant-Snrgeon; dated August 16, 1862.

The Italian Medical Association.—The Milan Committee, after a year's preparatory labour, has called the first meeting of the Italian Medical Association for September 1, hoping thus to inaugurate a career of Medical and Sanitary improvement.

Royal Medical and Chirurgical Society.—The Library was closed on Monday, August 18, and will be re-opened on Monday, September 15.

Discovery of a Human Skeleton at Kellet, in Lancashire.—A human skeleton has been discovered in a fissure in the limestone formation of this locality. No iron, bronze, or stone remains were found with it, nor any evidence of clothing or pottery. The fractured condition of the bones of the skull, from which a considerable proportion of the mineral substance has been abstracted, precludes any immediate conclusion as to the eranial conformation of the individual; or as to the possible period which has elapsed since the intentional or accidental burial in the fissure.

A public drinking fountain has been ereeted in memory of the late Sir P. Crampton, at the junction of D'Olier-street, College-street, and Great Brunswick-street. It bears the following inscription, by Lord Carlisle:—"1862. This fountain has been placed here, a type of health and usefulness, by the friends and admirers of Sir Philip Crampton, Bart., Surgeon-General to Her Majesty's Forces. It but feebly represents the sparkle of his genial faney, the depth of his calm sagacity, the clearness of his spotless honour, the flow of his boundless benevolence."

Fanny Warboy, aged 32, a widow, was found guilty, on Wednesday, at the Central Criminal Court, on the charge of having been accessory before the fact to the felonious using of an instrument upon herself, in order to produce miscarriage. In consideration of the suffering she had already undergone, she was sentenced to only three months' imprisonment.

Zoological Gardens.—A fine live female specimen of the Aye-Aye (*Cheiromys Madagascariensis*) was received at the Zoological Gardens in the beginning of this week. On the voyage from the Mauritius to Suez, it gave birth to a young one, and since that time has been rather in poor condition. It has, however, much improved since its reception in the Gardens, and where Mr. Bartlett, the Superintendent, has applied the greatest eare to its future healthy preservation. It is exhibited in a small cage in the room lately occupied by the Paradise birds. The principal superficial characters which strike the eye as differentiating this individual from the stuffed male now in the British Museum, and which was dissected by Professor Owen, are the yellowish brown colour of the face, and the greater development of the long hairs on the tail. In other respects, the appearance of the live specimen is perfectly in accord with the admirable drawings which Mr. Joseph Wolf and Mr. Erxleben have already exhibited at the Zoological Society. It was in the day-time when we saw the animal, and it consequently was in a sluggish state, in which it freely submitted to be handled, and withdrawn from its inner cage. The other animals in the Gardens are in good condition. The new antelope-house has been most successful. Again the lioness has produced cubs, which exhibit the congenital deficiency of ossification in the palatine bones. The birds of Paradise are now exhibited in a cage, a part of which is exposed to the open air, and we are glad to see that the increased space afforded them for flight and exercise has tended materially to improve their condition, the lateral yellow wing-tufts having greatly developed. The eecentric movements of the little kagu (*Rhinochetos*) attract much attention from their ludicrous nature; and the whole aspect of the Gardens, under the able management of its present officers, is such as materially to foster a taste for the acquirement of elementary biological facts by the masses, as well as to subserve the more important function of acting as a temporary depository, whence specimens of rare and interesting animals may be obtained after death, for dissection by comparative anatomists.

A writer in the *Times*, who signs himself "W. H. R.," thus speaks of the late Deputy Inspector-General Tice:—"The officers of the army with whom he served, and the many hundreds of our soldiers who passed under his kindly and skilful hands, will hear with sincere regret of the death of the able, accomplished, and amiable Physician, John Graham Tice; but the country, perhaps, will take no heed of another victim to India, or of the toils rewarded at last by the unparticular honours of a 'C.B.' After a long career of service abroad and at home, Dr. Tice was sent out to Malta on the outbreak of the Crimean war, and acted as Brigade-Surgeon in the Light Division, under Sir George Brown, in Bulgaria; was with them when cholera broke out in their camp at Devna, laboured among them with his colleagues, Alexander Longmore and others; accompanied his brigade to the Crimea, and established his Hospital under fire at the Alma, where his activity and zeal were conspicuous; thenee proceeded to the front at Sebastopol, where he was attacked by fever; took charge of the Medical department at Balaclava till his health failed him again, and he was obliged to go to Scutari. On his recovery, or indeed before it, he organised the beautiful Hospital at Kulalee, to the excellent and admirable arrangement of which Miss Nightingale and Lady Stratford de Redcliffe could bear testimony, in eommon with all who saw the place. After a very short respite from active service at the close of the Crimean war, he was appointed to Chatham, but was not long there before he was hurried out to India, and joined Lord Clyde's camp before Lucknow in March, 1858. When Sir R. Walpole's division marched for Rohilcund on the fall of Lucknow, Dr. Tice accompanied the column as principal Medical Officer, and was engaged at Rooyea, and on the junction of the column with Lord Clyde's army in the advance on Bareilly he continued in the field during that arduous march, and was actively employed till its close, when he was left in charge of the Rohilcund district, under General Walpole. Thence he was transferred to Lucknow, and now that his time had nearly expired, we hear of his premature and lamented death, caused most probably by that fatal procrastination which prevents Medical Officers in India leaving the country themselves, or letting others go till it is too late, owing to an over-zealous discharge of their duty. Whatever the cause, the country has to deplore the loss of an able and devoted servant, the service a most efficient officer, his friends a warm-hearted, genial companion, in John Graham Tice."

University of Edinburgh.—Degrees in Medicine.—The "capping" of 109 graduates of the University of Edinburgh, who had passed the examination for the degree of Doctor of Medicine, took place on Friday, August 8, in the Assembly Hall, in the presence of a large number of spectators. Principal Sir David Brewster presided on the occasion, and he was surrounded by the other members of the Senatus Academicus. The proceedings having been

opened with prayer by the Rev. Professor Crawford, the names of the graduates were intimated by Professor Balfour, and the young men were "capped" in succession by the Principal. The following is a list of the graduates—those who obtained prizes for their dissertations being marked *a;* those deemed worthy of competing for the dissertation prizes, *b;* and those commended for their dissertations, *c*:—Scotland.—*a*James Watt Black, M.A., Aberdeen; *c*Thomas Brisbane, *b*James Crichton Browne, Thos. Cairns, *c*William Watson Campbell, James Christison, Robert James Blair Cunyngham, Alexander Dewar, James Dewar, *c*Forbes Dick, James Dickson, *c*John Duncan, M.A., Edinburgh; *c*George Fyfe, James Gentle, Peter Gentle, James M'Ewan Girdwood, William Gordon, James Grant, James Hardie, John Hope, Patrick Cruickshank Houston, M.A., Aberdeen; *c*William Ketchen, *c*John Lightbody, John Macdougall, *b*Alexander Johnstone Macfarlan, James Robertson M'Iver, John Mackenzie M'Lean, B.A., Edinburgh; Roderick Macleod, *c*Robert Macnair, M.A., Glasgow; John Vicary Thatcher Malcolm, Peter Maxwell, *c*John Laidlaw Milligan, Peter Muir, *c*Claud Muirhead, William Muir Muirhead, David Murray, James Neilson, Andrew M'Lennan Rattray, Arthur Grant Reid, David Renton, Adam Robertson, James Davison Robertson, *c*David Ross, William Russell, John Shepherd, Francis Skae, *c*Andrew Smart, John Smith, *c*John Gordon Smith, *c*Walter Somerville, Andrew Stephen, *a*Ramsay Heatley Traquair, *c*John Wallace, M.A., Aberdeen; John Watson Wemyss, *c*George Vint Wright. England.—John Lovell Arnott, *c*Percy Boulton, *c*Thomas Lewis Brittain, William Turnbull Brody, *c*Edward Clapham, *b*Richard Davy, Charles Maslen Deane, *c*William Henry Dixon, Harry Foote, Frederick Augustus Palmer Hains, William Jones, David Makin Kennedy, *c*Robert Turner Land, Richard Lord, Frederick Blakesley Mallett, William Nash, John Nicholson, *c*William George Ross, Edward Julien Sharood, *c*Ellis Frederick Thorold, William Nealor Thursfield, Richard Sobey Veale, George Edward Wright, William Smith Wright. Ireland.—*c*Robert Alexander, Alexander Tertius Carson, Alexander Carson Clarke, Robert Jolly, John Todd. South Wales.—John Williams. North Wales.—*c*Thomas Henry Hughes, *c*John Turner. Florence.—A. Arthur Gamgee. Canada.—Donald Maclean, George Whyte. New Brunswick.—Peleg Wiswall Smith. Nova Scotia.—Clinton James Morse. Jamaica.—John Duncan Niven. East Indies.—Charles Martin Russell. Bengal.—James Henry George Hill. Calcutta.—*a*Thomas Richard Fraser. Cape of Good Hope.—John De Smidt, *c*Duncan Reid, James Gerhard Reid. West Indies.—Henry Armstrong Cheesbrough. Mauritius.—Jules Labonté. Demerara.—Augustus Carmichael Forte. Monte Video.—*c*Valentine O'Connor Conyngham. Barbadoes.—*c*John Sealy, Lynch Thomas. Bahamas.—Joseph Benson Corlett. Tasmania.—James Sommerville Hope. New South Wales.—Richard Fortune Blackwell. The following candidate received the degrees of M.B. and C.M.:—Charles Henry Groves, B.A., T.C.D., England. At the conclusion of the ceremonial, an address, "On the Academic Position of Medicine," was delivered by Professor Laycock.

Dr. Strachan on Illegitimacy in Scotland.—The *Montrose Review*, to which we are indebted for the notice of Dr. Guthrie's jubilee festival, gives an account of a lecture to young women on "Illegitimate Births," delivered by Dr. Strachan, of Dollar. He stated that want of chastity was prevalent almost solely amongst women of the working classes. He describes the disgrace as befalling, for the most part, the excellent seemingly pious young woman, well instructed in religion and morality. Of these, the most prone to fall, are those who have longest hours of work, and least leisure; and especially domestic servants. He believes that in a certain district specified, 12 per cent. of the young factory women, and 36 per cent. of the domestic servants had illegitimate children. "The two classes are identical in education and early training, the only difference being that factory girls have abundant leisure after working hours, and unrestrained intercourse with their acquaintances. In the middle and upper ranks, free and open intercourse amongst young people of both sexes is quite unrestrained. Young men are permitted to visit freely, to spend the evenings, to enjoy amusements; they meet and walk with ladies in the streets, there being no false shame of being seen together. And it is found that all this has not the slightest tendency to diminish, but, on the contrary, greatly increases mutual respect. It yields much enjoyment and reciprocal benefit. Gentlemen are refined and purified and their manners polished, and ladies, I hope, have their intellects strengthened and improved. You cannot expect that girls will not only abandon all social enjoyment, but also all hopes of marriage, which they must do were they kept entirely from male acquaintances. You must, therefore, see the unreasonableness of the usual prohibition of 'no followers.' No followers! God Almighty by his immutable laws of nature has declared that they should have followers. Can we imagine that these immortal beings, with the same constitution as ourselves, with intellects as great, with affections as keen, were sent into the world merely to minister to our needs and to submit to our caprices. It is the greatest tyranny to attempt to deprive them of the sweetest earthly bliss, that of virtuous love. And what must be the consequence? Try it on your own daughters. Tell them they must have no followers, no friends, no acquaintances, and, within a week, they will have entered on a course of concealment and deception, the first step on the road to ruin. I would also refer to the remarkable fact of the comparative freedom from this sin of young women of the working class in Ireland. I had lately an opportunity of talking with an intelligent Scotchman who had for many years been in a large farm in Tipperary. He assured me that no illegitimate birth had occurred among his servants or work people, and that such births are so rare as to be a matter of wonder to the neighbourhood. After endeavouring to ascertain from him the reason of this, I became convinced that one great cause of this freedom from immorality is the number of saint days and holidays in the Roman Catholic Church. On these days, after a short time in church, the day is spent in dancing and other amusements; the young men and women mixing freely together; the maids uniformly returning home about nine in the evening; such a thing as young men and women meeting together at a late hour being quite unknown. These facts clearly prove that intercourse at timeous hours would not promote, but greatly diminish the prevailing immorality."

Jubilee Presentation to Dr. Alexander Guthrie of Brechin.—On Friday, August 1, Dr. Guthrie, the "father" of the Medical Profession in Forfarshire, was presented with a superb testimonial, consisting of his own portrait, painted by Calvin Smith, on the occasion of his completing his fiftieth year of practice in Brechin, and a magnificent service of plate. The Earl of Dalhousie, who occupied the chair, and was supported by a large number of the nobility and gentry of the neighbourhood, addressed Dr. Guthrie in a feeling and humorous speech:—"Fifty years practice as a country Doctor! It is almost as astonishing a feat as one of the labours of Hercules. We have read of Physicians who roll at ease in their carriages in great cities, and who have ample time upon their hands to recruit from the labours of the day, spending many years in their Profession, and living to be hale and hearty men. But the life of a country Doctor is a very different thing. Fifty years practice in a Profession which renders the individual who follows it liable to be disturbed at all hours of day and night, in all seasons of the year—summer or winter—is a labour upon which our friend, Dr. Guthrie, can—thank God!—look back with great comfort to his conscience and little diminution to his physical strength. It is singular how, in the midst of so many calls upon him during so long a period of life, our friend could have found time to master all the theories, as well as the practice of that Profession. I believe that, as a man is said to be born a statesman, our friend must have been born a Doctor. It would be an amusing book if we could persuade our friend to publish a short history of these fifty years. To look at him as he sits there at present, few of you young people would believe that, in the early part of his Profession, there was not a keener or a better horseman rode through our glens or over our mountains; and I do not know that I may not say of the Doctor, that on his missions of mercy, he has often done that which the young Lochinvar did upon his mission of love—'Swam the Esk, where ford there was none.'" In the course of his reply, Dr. Guthrie said as follows:—"A Medical man would require to have for his motto 'Aye ready;' for at all hours, and in all weathers, he is called upon to buckle on his armour, and go out to do battle with a foe more deadly than either famine or sword. In illustration of this, take the following case, which I can assure you is not uncommon, or in the least overdrawn:—The wearied country Surgeon has gone early to bed, with the prospect of a resting night, after having got little sleep for

two or three nights previous, and after having gone over from thirty to forty miles each day, between riding and walking. When just over in sound sleep, a loud and hurried summons rouses him to hasten to an urgent case, and he is obliged to start, and probably ride eight or ten miles in a wet or stormy night, so overcome with fatigue that he dozes half the way. As a specimen of great bodily toil, in my own experience, I had on one occasion to visit a patient at the head of Glenesk every day for a week (it being quite true, as his Lordship remarked, that I had then to ford the Esk) and at the same time to keep up my other country visits. During that period I rode upwards of sixty miles each day, besides perambulating town and tenements. Ladies and gentlemen, hitherto I have been laying before you a sketch of the dark side of the Professional picture, but I pray you not to imagine on that account that it has no bright side. If we have much to weigh us down, we have also much to cheer and stimulate us. The grand object of the Medical Practitioner should be, and I believe is, to bring about the recovery of those under his care as speedily as possible. You do, indeed, often hear ignorant people remarking, 'Ah! Doctors don't wish their patients well too soon, as in that case it is not a paying job." Such a statement places the members of the Profession in a false position. For my own part, I indignantly repudiate the suspicion implied in the language. I assure you I am only too glad to see my patients restored to health as soon as possible, not only on their own account, but also for my own credit, and as giving a *prestige* of my professional capacity in the view of the community. The satisfaction a Medical man feels in the recovery of a serious and apparently hopeless case, where life was at one time quivering in the balance, can be realised in its full intensity only by those who have experienced it. The watching, anxiety, and suspense of hours, or days, or perhaps even weeks, are all forgot when this happy result is attained. Without taking praise to myself, I cannot be too grateful to the Almighty Ruler of all events, who has blessed my efforts to relieve many unpromising and desperate cases of distress." A complimentary dinner followed, with Lord Dalhousie in the chair. The venerable Doctor comes evidently of good stuff, and seems made in the same mould as our late venerated friend G. J. Guthrie, the Military Surgeon of wide-world fame. Amongst the company were the Rev. Dr. Guthrie, a Free Kirk minister of some celebrity, Provost Guthrie, and Capt. Guthrie; and the more the better we say of men so capable of serving God, the Queen, and their fellow-subjects. May Dr. Guthrie live to see many living portraits of himself in his children's children.

CONSANGUINITY.—M. Sanson has lately contributed to the Academy of Sciences a paper on the effects of consanguinity in animals. M. Sanson, far from confirming Dr. Boudin's view of the effects of consanguinity, endeavours to show from the English stud-book that the circumstance in question has always been favourable to the physical development of the progeny. Flying Childers, for instance, one of the most famous thorough-bred horses on record, was the brother of his maternal great grand-sire; Chevalier de St. George, a winner of the St. Leger, had Irish Birdcatcher, by Sir Hercules, for his sire; while his dam was by Hetman Platoff, out of Waterwitch, by Sir Hercules. Hence the latter, one of the glories of the turf, was on the one hand the grand-sire, and on the other the great grand-sire of Chevalier de St. George. Passing from the horse to horned cattle, M. Sanson shows that the best bulls on record were the result of consanguineous intercourse. The small Breton race, of the department of the Morbihan, remarkable for its vigour, and for the rich milk it yields, is generally propagated by consanguinity. Sheep, pigs, and fowls offer similar instances. Hence M. Sanson concludes that consanguinity, since it does not lead to disastrous consequences in domestic animals, is not likely to be injurious to the human race, and that M. Boudin's statistics must be regarded with caution. To this argument we believe it might be replied that the disastrous effects of consanguineous marriages seem to bear particularly upon the organs of hearing and speech, more particularly important to the higher organisation of man. Mr. W. R. Scott, of the Institution of the Deaf and Dumb at Exeter, has lately called attention to the fact that deaf mutes occur in much larger proportion in secluded and rural populations than in urban and manufacturing districts. He attributes the greater prevalency of the affection to breeding in and in through successive generations. In the Union of Crediton, in Devonshire, there are no less than one deaf mute in every 1·143 persons, and in the Scilly Islands there are six in a population of 2·677, or one in 446.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 16, 1862.

BIRTHS.

Births of Boys, 826; Girls, 822; Total, 1648.
Average of 10 corresponding weeks, 1852-61, 1641·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	625	603	1228
Average of the ten years 1852-61	608·1	591·1	1199·2
Average corrected to increased population..	..	..	1319
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	2	11	1	4	9	18
North ..	618,210	1	13	12	3	5	10	24
Central ..	378,058	..	6	8	..	2	12	17
East	571,158	2	32	15	..	2	12	22
South ..	773,175	2	8	12	4	6	17	35
Total.. ..	2,803,989	5	61	58	8	19	60	116

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·778 in.
Mean temperature	58·7
Highest point of thermometer	74
Lowest point of thermometer	47·3
Mean dew-point temperature	55·7
General direction of wind	S.W.
Whole amount of rain in the week	0·94 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Medicus A.—See the "Surgeon's Vade Mecum," 8th Ed., p. 546. Write to Whicker and Blaise, St. James's-street, S.W.

Erratum.—Page 184, column 2, line 9, *for* "a single epithet of" *read* "by a single epithet."

A Caution.—We heartily agree with our correspondent in thinking that if men really bestowed one minute's reflection on the matter, they would pay their two guineas a-year to the *Society for Relief of Widows and Orphans*, 53, Berners-street, and not expose them to the risk of beggary.

A Reverend Cancer Curer.—If any of our readers are interested in the history of the Rev. Hugh Reed, some time Curate of St. Andrew's, Holborn, and of his exploits in the cure of cancer, we may refer them to the *Medical Times and Gazette* for 1860, vol. I., and in particular to the Numbers for June 16 and 23.

F.—It is not unusual for the friends of Medical men to insert notices of cures or operations in the local papers, and sometimes to transgress the strict rules of propriety in so doing. But we should be always cautious in laying the blame at the door of the Surgeon concerned. The offence is not limited to country Surgeons, nor to young ones.

Medicus.—The circular issued by the College of Surgeons will scarcely repay the expense of reprinting. It is the obscurest, most roundabout, shambling document that ever was seen; not even a Papal allocution comes up to it in amplitudinous verbosity. It states the truism that students cannot be made fit for the duties of their Profession without practice Whoever thought they could? We may say this, that the "authorities" will confer a great boon by diminishing the number of *formal* lectures on those matters which may be learned from books.

The Rev. Hugh Reed the Cancer Curer again.—Whoever will turn to the *Medical Times and Gazette* for 1860, Vol. I., will find abundant particulars about this reverend dabbler in physic. He used to profess to cure cancer, is said to have taken heavy fees, to have salivated his patients profusely, and they meanwhile had an obstinate trick of giving up the ghost. If Mr. Reed is following the old game, it would be advisable to lay a statement of the facts before the Bishop.

The Surrey County Hospital.—We have received a letter from a "Committee Man" of the new Hospital to be erected at Guildford, contradicting the statements in reference to it which have appeared in one of the local papers, and on which the Article we published in the *Medical Times and Gazette* of August 9 was founded. The writer states, "that the project has been a-foot ever since last November, when an Honorary Secretary

was appointed by a small body of gentlemen, who rendered themselves responsible for any expenses which might be incurred if the endeavour miscarried. That Honorary Secretary has laboured most intelligently, zealously, and efficiently in furtherance of the object, but has never received a single farthing as a remuneration for his services. Instead of the preliminary expenses reaching the amount set forth in your statement, the real amount already paid, with outstanding liabilities, inclusive of all charges, from last November up to the present time, is about £300, upon a receipt and promise of contributions of £5500." The writer also promises to send us the report of the Committee, together with a verified account of the expenditure. We need scarcely say that it will give us great pleasure to find that in this instance we have been misled, and to correct the error.

Blind New-born Children.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—While attending a labour the other day, the nurse asked me "Whether I agreed with Mr. ——, my neighbour, in believing that children are born blind?" My answer was "No." I should be glad, however, to hear the subject canvassed among your correspondents.

I am, &c.

Acton. E. E. Day.

On Supernumerary Fingers and Toes.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the *Philosophical Transactions* for the year 1814, Mr. (afterwards Sir Anthony) Carlisle published an instance of supernumerary fingers and toes occurring through four successive generations. The latest of these generations (this was in 1813) included eight persons, of whom four presented this peculiarity. One of these four was Zerah Colburn, the American calculating boy. Can any of your readers tell me if this family is still existing, and if they are still in the enjoyment of extra fingers and toes, and if so, to what extent?

I am, &c. G. E. D.

Case of Superfœtation?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As a report appeared in your Journal of August 9, on a case of superfœtation, brought forward at the meeting of the Obstetrical Society, July 2. I beg to send the notes of one in some respects similar attended by me.

Mrs. ——, the mother of two children, supposed to be six months advanced in pregnancy, was seized with symptoms of abortion on the 25th of last month, having unduly exerted herself the previous day. Labour continued until the morning of the 26th, when a fœtus, about three months, was expelled, and shortly after another, apparently six months, which lived for some hours. The placentæ were united and came away without trouble. The first fœtus showed no symptoms of putrefaction. I am, &c.

Somerton, Somerset. Edmund Wm. Valentine.

Tartarized Antimony in Lingering Labour.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was called by a midwife, who requested me to bring my instruments with me, to see a Mrs. F., who had been in labour twenty-four hours. Immediately on my arrival I made an examination per vaginam; pains having ceased, and the patient complaining of great exhaustion, with total want of power. The os uteri was fully dilated, and a small tumour grew from its lip; she had suffered from great hæmorrhagic discharge. After giving many doses of liq. secal., which produced no uterine effort, but great distress from sickness, I had recourse to a remedy that I have frequently found in Hospital and Dispensary Practice most useful, the antim. tartz., in two-grain doses every twenty minutes; the third dose produced strong uterine action, without much sickness, but great perspiration, which was before quite absent. The woman was delivered without much difficulty, the tumour diminished, and she has recovered without a bad symptom, and is doing in every respect quite well.

I am, &c.

August 4. G. F. Whidborne, L.R.C.P.E.

Professional Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following outrage on the part of Mr. T. B. Crosby (Sewell and Crosby), seems to me to deserve description in your pages:—

A patient in whom disease of the femur had been followed by fracture was under my care. The fracture was nine weeks old, the limb of normal length, and the patient free from pain; but the bone was obviously diseased and the union untrustworthy. All retentive apparatus but sand bags had been done away with, and the patient had been directed to shift about carefully in bed, but for the present to avoid putting any direct strain upon the thigh. At this juncture Mr. Crosby is passing or in an adjoining house, and is casually asked to see the patient. Knowing that I am in attendance, Mr. Crosby sees the case, examines it, and actually lifts the foot from the bed, and forcibly rotates it to test the strength of the limb. The result is, as might have been predicted, great pain to the patient, severance of the union, and at my next visit the limb is shockingly bent, and shortened three to four inches. I have since received no word of apology or explanation. I find Mr. Crosby's name on the Council of the Hunterian Society, and such conduct can therefore hardly be excused on the score of ignorance. I am, &c.

2, Spital-square, August 19. James Edmunds.

A Word of Advice to the College of Surgeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The College of Physicians having recently given out their intention to examine in Surgery as well as in Medicine, and the Universities claiming the same privilege, it now behoves the College of Surgeons to examine in Medicine as well as in Surgery. A new charter may be required for this purpose, and no time should be lost by the College in maintaining its position, equality, and right to confer the double qualification of Medicine and Surgery upon the rising generation.

It is a question of great importance to the Medical student whether he will be permitted to style himself "Surgeon" under the qualification of the College of Physicians. It is also a question whether a Graduate in Surgery could register as Surgeon. The same argument holds good as relates to Graduates in Medicine who could not register as Physicians; nor could a Physician register as Doctor of Medicine. It would, therefore, be impossible to introduce a title clause into the new Medical Act, without first making a compromise between the respective Colleges and the Universities. A Graduate, for instance, who holds the post of Physician to an Infirmary, Hospital, etc., would be open to prosecution, and this would be a very hard case; while, on the other side, the Licentiate or Fellow of a College of Physicians, England, Ireland, and Scotland, could not style himself Doctor, which is an index to his being a Physician. Taking this legal view of the great bulk of the Profession, it behoves the legislation to act with caution.

I am, &c. Justice.

Professional Advertising.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you let your subscribers see what an "eye" some of the M.D.'s have to business in Yorkshire. I am, &c. W.

August 14.

"William Connon, M.D., M.R.C.S. Eng., B.A. and L.S.A. Lond., begs respectfully to inform the inhabitants of Dewsbury and its neighbourhood, that he has taken the house in the Market-place, recently occupied by Dr. Hinchcliffe; where he hopes by diligent attention to the duties of his Profession to merit a share of public patronage.

"Dewsbury, July 10, 1862."

Murder of a Poor-law Medical Officer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the early part of last month you kindly gave insertion to an appeal I made on behalf of the widow and family of the late Mr. Puckett, who was murdered and decapitated by an insane pauper; that appeal, I am happy to announce, has already been responded to most liberally, and upwards of £800 have been subscribed. My object in now writing is to inform your readers that I shall feel obliged by those who desire to subscribe, or who have promised subscriptions but have not sent the money, that they will, in the course of this month, forward their subscriptions either to myself or to the Banks of Messrs. Eliot, Messrs. Williams, or the Wilts and Dorset, all of Weymouth, in order that I may make out correct lists for publication. In my next I will explain the way in which the money has been applied. I am, &c.

12, Royal-terrace, Weymouth, August 16. Richard Griffin.

The Pseudo Cancer Curer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In answer to "Querist," in the *Medical Times and Gazette* of August 9, relative to the antecedents of the Rev. Hugh Reed, I beg to inform him that he was formerly Curate of Wenlock, in Shropshire, where he also practised as a Doctor. By applying to any of the Medical men of the place they can enlighten him on the subject of the rev. gentleman's Medical career there. I am, &c.

Leominster, August 13. C. F. T.

The Right to Practise.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A person who has been a Medical Assistant in the town for many years has commenced Practice, but is not legally qualified; can any one prevent him from so doing if he does not sign himself Dr., Surgeon, or Apothecary? I am, &c.

Hyde, August 13. A Constant Subscriber.

[The "Act to Regulate the Qualifications of Practitioners in Medicine and Surgery" thus begins:—"Whereas it is expedient that persons requiring Medical aid should be enabled to distinguish *qualified* from *unqualified* Practitioners." It thus distinctly recognises unqualified Practitioners, and does not pretend to suppress them. It did not add, *simpliciter*, to the privileges of qualified Practitioners; for it compelled them to "register," to pay a fee for so doing, and took away their right to sue, unless they were registered. If an already qualified Practitioner did not register, it *dis*qualified him; because after January 1, 1859, no man, be his diplomas what they may, who is not registered, is a "duly," or "legally qualified Practitioner." "Registered" Practitioners alone can sue and recover charges, can hold certain appointments, and give certain certificates. And any one wilfully and falsely pretending to take or use the name or title of Physician, Doctor of Medicine, etc., may be fined £20, if convicted. If the Assistant practises as an Apothecary, the Act of 1815 *may* reach him.]

Dr. Hughes Bennett's Pneumonia Cases.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As it is important in the cause of truth, that what is stated in Medical debates should not be slurred over or given imperfectly, to the great self-gratulation *pro re nata* of the routine men, who advance in a circle, as Lord Bacon long ago said all Medical Doctors do under the inductive method,—as it is only fair to Dr. Hughes Bennett, who read such a masterly essay on Pneumonia, to give the substance of my few remarks on that subject, I shall feel obliged by the insertion of this note. To Sir Charles Hastings' sharp query, "Who was I?" my reply was like that in the story of Polyphemus, nobody, emphatically "Nobody!" But having been twelve years Hospital reporter for *The Lancet* and other journals, I had given the utmost attention to the treatment of pneumonia in twelve London Hospitals. I had collected bushels of cases and mountains of notes on the subject, and my deductions, by comparing groups of cases one with another, were very much in favour of Dr. Hughes Bennett's views.

I said "I had carefully watched for twelve years, without being a single week or day almost out of Hospital wards, the practice in pneumonia where crisis was waited for, and in some measure Dr. Bennett's expectant plan adopted by such able men as Dr. Parkes, Dr. Gull, Dr. Andrew Clarke, the late Dr. Addison, etc., and when I came to compare it with the practice of the admirers of the late Dr. Clutterbuck and the lancet in pneumonia, and the result of pneumonia patients dying on entering the Hospital, bled to death by chemists and others out of doors, that I had found everything to favour Dr. Hughes Bennett's views. As to the late Dr. Todd's treatment, it was equally successful; but his use of wine was shamefully misrepresented by factious teetotalers and the admirers of the lancet; and at best, wine neither cured nor aggravated inflammation or pneumonia; its effect was supporting and rather a coincidence."

I have watched the clinical performances of almost every one in London of note,—Dr. Chambers, Dr. Willshire, Dr. Bence Jones, Dr. Burrows, Dr. Barlow, and many others on one side of the question, as well as the practice of my excellent friends, already named, on the other; as also

that of some of the more advanced of the Brompton Hospital men, and made inquiry as to their ideas as to phthisis, favoured by what we may term "Clutterbuckism," or that heroic use of the lancet that killed Count Cavour; and although the "Association" seemed more anxious to give an hour to the discussion of the "religious services" question, I could not refrain from making these few hurried remarks as only fair to Dr. Hughes Bennett.

I am, &c.

Sackville-street, W., August 15. CHARLES KIDD, M.D.

P.S.—There is a death from chloroform at King's College going the rounds of the papers with the stereotyped formula, "fatty heart" as the cause: on inquiry, I find there was no fatty heart.

"ANEROID."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—My attention has been called to the four competing derivations of this term in your Journal for July 26 and August 2, and as it is a thing of special interest to me to be decided as to the correct one, I beg space for a few words. That from the "Expository Lexicon" comes first. I shall allude to it at the close of this note. The second (from "Pickford's Hygiene") is given as "ἄνευ—without, ῥυώδες—moisture." There seems no need, however, to resort to ἄνευ, a word little employed in preference to the simple α or αν; and ῥυώδης, an adjective, means "fluid, and abundant," not "moisture." The next (from "Webster") "α priv. and ὑγρὸς—moist." which has been flatteringly stamped with your editorial approval as the right one, does not impress my mind with the same conviction; indeed, I cannot discover connexion or relation between etyma and derivative. The remaining derivation, from "α and νηρος—moist," is, like the preceding, approaching nearer to its alleged derivative, only in sound.

Misapprehension appears to have misled the authors of these three derivations. True, the "aneroid" barometer is intended to show the weight of the atmosphere in its varied changes, and that is affected by moisture, but such is the purpose of every barometer, and, if "aneroid" expressed moisture at all, the name "aneroid barometer" would be superfluously redundant. "Aneroid" has, in fact, no reference whatever to moisture, nor, in itself, to a barometer. It is merely a distinctive epithet, similar to many adopted by science, indicating the characteristic condition of a kind of round flat box or instrument which serves the purpose of a barometer,—viz., exhausted of air. Notwithstanding a triple competition, therefore, and the formidable sway of your decision against me, I am bold enough to adhere to my own derivation of "α, and ἀὴρ—airless, or without air" Hoping pardon for daring to withstand so many wiser heads,

Leeds, August 14. I am, &c. R. G. MAYNE.

M.R.C.P.—The following are the new Bye-laws relating to the Members of the Royal College of Physicians. Our Correspondent will see that the law respecting titles applies equally to Fellows, Members, and Licentiates:—

CHAPTER XIX.

1. The Members of the College, present and future, shall be alone eligible to the Fellowship. They shall have the use of the Library and Museum, subject to the regulations relating thereto, and shall be admitted to all lectures, and shall enjoy such further privileges as may from time to time be defined by the Bye-laws; but they shall not be entitled to any share in the government, or to attend or vote at General Meetings of the Corporation.

2. All persons who have been admitted before Ferbruary 16, 1859, Licentiates of the College, shall be entitled to be admitted Members of the College, provided that they have, since their admission as Licentiates, obeyed the Bye-laws, and do accept such Membership, and engage henceforth to obey the Bye-laws of the College.

3. Any Extra-Licentiate who shall have produced testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall comply with such other regulations as are required by the Bye-laws of the said Corporation, may be proposed to the College to be admitted a Member of the College.

4. Any person who does not dispense or supply medicine, and who shall have satisfied the College touching his knowledge of Medical and general science and literature, and who shall comply with the Bye-laws and Regulations of the College, may be proposed to the College to be admitted a Member of the College.

5. Every Candidate for Membership, under the last Bye-law, shall furnish proof that he has attained the age of twenty-five years.

6. Every such Candidate shall produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a Member of the College.

7. Every such Candidate shall produce proof of having passed an Examination in the subjects of General Education; and in the case of Candidates who shall have commenced their Professional Studies after September, 1861, the Examination in General Education must have been passed before they commenced their Professional Studies.

8. Every such Candidate (except such as shall be admissible under Section XVI. of the present Chapter) shall produce proof of his having been engaged in the study of Physic during a period of five years, of which four years at least shall have been passed at a Medical School or Schools recognised by the College.

9. Every such Candidate (except such as shall be admissible under Sect. XVI. of the present Chapter) shall produce evidence satisfactory to the Censors' Board, of his having studied the following subjects:—

Anatomy, with Dissections;
Physiology;
Chemistry; with Practical Chemistry;
Materia Medica and Botany;
Morbid Anatomy;
Principles and Practice of Medicine;
Principles and Practice of Surgery;
Midwifery, and the Diseases peculiar to Women and Children;
Forensic Medicine;

of his having attended diligently during three years the Medical Practice, and during one year the Surgical Practice of a Hospital containing at least 100 beds; and of his having served the Office of Clinical Clerk during at least six months.

10. Every such candidate who has prosecuted his studies abroad, whether in part or to the full extent required by the preceding Bye-law (except such as shall be admissible under Sect. XVI. of the present Chapter), shall, nevertheless, bring proof of his having attended during at least twelve months, the Medical Practice of a Hospital in the United Kingdom containing 100 beds.

11. If the Censors' Board should doubt the sufficiency of the certificates and testimonials produced by any such Candidate, or his fitness, in any respect, for admission to examination, they may submit the case to a General Meeting of the Fellows.

12. No such Candidate shall be admitted to examination who is engaged in trade, or who dispenses medicine, or makes any engagement with a chemist or any other person for the supply of medicines, or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues.

13. No such Candidate shall be admitted to examination who refuses to make known, when so required by the President and Censors, the nature and composition of any remedy he uses.

14. Every such Candidate (except in cases specially exempted under Sections XV. and XVI. of the present Chapter), shall have given proof of his acquirements by written answers to questions placed before him, and shall have been examined *vivâ voce* at three separate Meetings of the Censors' Board, and shall have been approved by the President and Censors, or by the major part of them, at each examination.

15. Any such Candidate who has already obtained the degree of Doctor or Bachelor of Medicine, at a University in the United Kingdom, wherein the courses of study, and the examinations to be undergone by Students previously to graduation, shall have been adjudged by the Censors' Board to be entirely satisfactory, shall be exempt (if the Censors shall think fit) from all or any parts of the examinations hereinbefore described, except such as relate to Pathology and Therapeutics.

16. If any such Candidate, who has attained the age of forty years, but has not fulfilled all the conditions required by Sections 7, 8, and 9, shall produce testimonials, not merely satisfactory as to his moral character and conduct, and his general and Professional acquirements, but further showing that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a Medical Practitioner; the Censors' Board having well weighed and considered these Testimonials, may, if they see fit, submit them to the Fellows at a General Meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the Candidate shall be admitted to examination, which shall, in every such case, be as full and complete as the Censors may deem sufficient.

17. Any Candidate not approved by the Censors' Board shall not (except by special permission of the College) be re-admitted to examination until after the lapse of a year.

18. Every Candidate approved by the Censors' Board shall be proposed, at the next General Meeting of Fellows, as qualified to become a Member of the College; and if the majority of the Fellows present shall consent, he shall, on complying with the regulations prescribed by the Bye-laws, be admitted a Member of the College.

19. Every Member, at the time of his admission, shall have Letters Testimonial under the seal of the Corporation, in this form:—

SCIANT OMNES NOS.

A B. Præsidentem Collegii Regalis Medicorum Londinensis, unà cum Censoribus, examinâsse et approbâsse ornatissimum virum, C.D. [in florentissimâ Academiâ ——— Medicinæ Doctorem:]et cum consensu Sociorum ejusdem Collegii, auctoritate nobis a Domino Rege et Parliamento commissâ ei concessisse has Literas Testimoniales. In cujus rei fidem et testimonium, adjectis Censorum et Registrarii chirographis, sigillum nostrum commune præsentibus apponi fecimus. Datis ex ædibus Collegii die ——— mensis ——— anno Domini millesimo octingentesimo.

CHAPTER XXIII.

7. No Fellow, Member, or Licentiate of the College shall assume the title of Doctor of Medicine, or use any other name, title, designation, or distinction implying that he is a Graduate in Medicine of a University, unless he be a Graduate in Medicine of a University.

COMMUNICATIONS have been received from:—

Mr. HEATHER BIGG; Mr. SANDS COX; Mr. BAKER; Dr. KIDD; ORMSKIRK; Mr. GRIFFIN; P., RAMSGATE; SALISBURY; Mr. R. G. MAYNE; Mr. J. V. SOLOMON; BRISTOL; J. B.; A NEEDY FATHER; SOUTHPORT; E. F. H., LEOMINSTER; LOOKER ON; Dr. RADCLYFFE HALL; Mr. J. PEARSON IRVINE; Dr. EDMUNDS; Mr. R. M'CORMICK; RADIX; Dr. R. P. COTTON; Mr. BENJAMIN MASKELL; LIVERPOOL; Mr. B. R. WHEATLEY; M.R.C.P.; A CONSTANT SUBSCRIBER; A COMMITTEE MAN; Mr. E. E. DAY.

APPOINTMENTS FOR THE WEEK.

August 23. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

25. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

26. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

27. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

29. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Henry Smith—Opening Sinuses about the Hip; Fistula in Ano; Removal of Tumour from the Buttock.

PRIZE MEDAL AWARDED.

INTERNATIONAL EXHIBITION, 1862.

HOOPER'S WATER BEDS AND CUSHIONS FOR BED SORES, ETC.

To be used on an Ordinary Bedstead or Couch.

Full-length Water Mattress.

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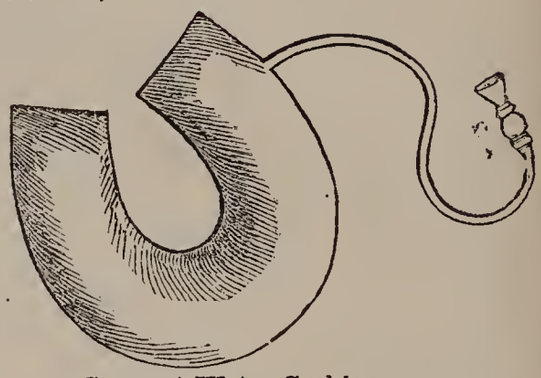
Circular Water Cushion,
For sitting on and relieving Bed-sores.

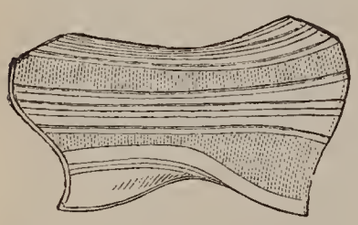


Crescent Water Cushion,
Specially adapted for the Sacrum.

Also, SQUARE CUSHIONS for the Hip, Back, &c., and for applying HOT or COLD WATER to any part of the Body.

WATERPROOF SHEETING, VALVULAR URINALS, ELASTIC BANDAGES.

WILLIAM HOOPER, Operative Chemist, 7, Pall Mall East, and 55, Grosvenor-street, London.



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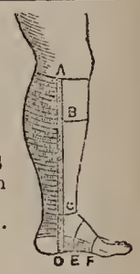

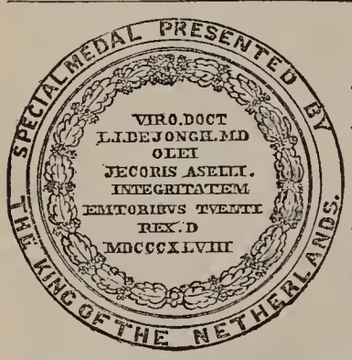

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Dr. LANKESTER, F.R.S., late Lecturer on the Practice of Medicine, St. George's School of Medicine:—"I consider that the purity and genuineness of this Oil are secured in its preparation by the personal attention of so good a Chemist and intelligent a Physician as Dr. de Jongh, who has also written the best Medical Treatise on the Oil with which I am acquainted. Hence I deem the Cod-liver Oil sold under his guarantee to be preferable to any other kind as regards genuineness and medicinal efficacy."

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ORIGINAL LECTURES.

CLINICAL LECTURES ON EPILEPSY,

DELIVERED AT

The Hospital for Epilepsy and Paralysis.

By J. S. RAMSKILL, M.D., etc.

Assistant-Physician to the London Hospital; Physician to the Hospital for Epilepsy and Paralysis.

Lecture II.

Gentlemen,—I believe in all true cases of epilepsy there is some warning or aura of the fit. The warning may be so feeble, and it may exist so short a time prior to loss of consciousness, that all remembrance of it may be lost. The friends of patients often are able to recognise a fit approaching when the patients themselves insist they had no warning whatever. The warning nevertheless existed. But as the object of these Lectures is with especial relation to treatment, I shall not here give any other reason for that belief beyond this, that, in many cases as the patients improve, the aura, at first very slight, becomes more developed and decisive, and in others, where no warning is said ever to have existed, the patients are able to foretell an approaching fit. I will now relate cases, some of which you have seen, where the aura was distinct and eccentric.

Caroline G. (Hospital Books, vol. E. P. p. 120), aged 40, stout, weighing eighteen stone; pallid; of leucophlegmatic temperament; had not any fits as a child, nor chorea. Family history good; parents lived to old age; brothers and sisters (five), healthy. Enjoyed good health until ten years ago; was bled for inflammation of bowels; recovered quickly. Three weeks after the bleeding complained of an uneasy feeling in the bend of the elbow where she had been bled; this feeling shortly became positive pain. The pain extended downwards along the inner and middle half of the forearm; it lasted a few minutes, and gradually died away. The pain recurred once or twice in the month. After a few months had elapsed, the little finger, and gradually the ring and middle fingers became violently contracted at the approach, and continued during the violence of the pain. Gradually all the fingers became involved, and the pain became worse, almost unbearable. She applied to various Hospitals for relief. All the symptoms would pass off occasionally for three or four months. Twelvemonths ago they were renewed with considerable intensity, and one day the pain extended up to the shoulder. A second attack followed the same night, and she was violently convulsed. She has had these convulsions at least one in fourteen days ever since. She has bit her tongue, but not often. She is perfectly unconscious during the attacks, foams at the mouth, and the arm and hand are strongly contracted. The other limbs have clonic convulsions. When she recovers the pain in her arm has gone, and she falls into a stupor for some hours. There are no symptoms of note between the attacks; memory is good, and she is quick and intelligent; circulation and digestion normal. On examining the arm there is only a faint cicatrix to be observed obliquely across the medio-basilic vein. The cicatrix is not tender to touch, and the motions of the arm are performed without pain. The limb is well nourished; she can lift heavy weights, and knows of no means whereby an attack can be induced. The attacks come most frequently when she is out of spirits or worried. A small blister, size of half-a-crown, was ordered to be applied to the cicatrix, and kept on for twelve hours; and a pill of podophyllin gr. ¼, with an equal quantity of lannabis indica, and two grains of the extract of menispermum fenestrum ordered every night. From that time to the present, five months, there has not been any recurrence of either pain or convulsions.

I cannot think in this case that the medicine had any specific influence in preventing the attack. The cure was due simply to the action of the blister, to a subsequent change of nutrition in the filaments of, or in the small branch of wounded nerve, or of nerve fibres involved in the cicatrix. Yet the cicatrix is not now in its appearance lessened in size or structure. The commotion, however, which did exist in the nerve or in its expansion has ceased. The source of the aura—for there was, I apprehend, an aura, independent of the sensation of pain—has disappeared, and the excitation mounting to the cerebro-spinal centre giving rise to the convulsions has ceased also, and the patient is cured. I would say in addition, that the disease in this case was not necessarily dependent on injury done to a sensitive nerve. Pain was a mere coincidence. Worms in the intestine are well-known causes of epileptic fits, yet their presence is not often felt. They produce fits through an excitation of the excito-motory system of nerves.

It does not follow that because you discover an aura, that therefore this is the true cause and starting-point of the fits. A case related by Odier illustrates this. A man had frequent cramps in the little finger of his left hand. The contractions increased in extent and frequency by degrees to the forearm, arm, and shoulder, always beginning in the little finger. At last they arrived at the head, and then true fits of epilepsy with loss of consciousness took place. By means of two ligatures, placed respectively over the arm and forearm, and which the man could tighten easily, when he felt the first contractions in the little finger, the fits were prevented at every threatening for two or three years. One day, after eating and drinking too much, he forgot the ligature when the initial cramp appeared, and he had a violent fit. From this time the ligature had no more influence over the fits, and they became very frequent, and always began in the little finger. Paralysis came on, and the patient died of coma. On post-mortem an enormous tumour was found on the brain, below a place where the cranium had been wounded long before. The case shows that we are not justified, after discovering the place of origin of an aura, to neglect a further and more minute examination of the patient; still less of concluding that because we have discovered the starting-point of a fit, that therefore there is no other origin for them. There are patients attending at this Hospital now who are able to stop the accession of a fit by means of a ligature, in whom there is undoubted cerebral disease. I allude to cases of hemiplegia with fits; but as they are not cases of true epilepsy, I do not think it right to mention them now. In Odier's case above related, I believe the explanation to be this:—Some of the nervous fibrils going up to the brain from the arm, at the seat of their radiation in the hemispheres, were irritated. That irritation was felt in the fingers demonstrating itself in the manner of cramp; then in the fingers it excited some commotion in the excito-motory system of nerves, and was reflected back, not to the cerebrum or seat of disease, but to the excito-motor centre, the effect of which but for the ligature would have been increased action in the centre and correspondingly increased function, viz., the phenomena of a fit.

Here is another case of epilepsy having a premonitory muscular cramp.

H. H. (vol. E. p. 178), aged 23, is a short, thin man, of pallid aspect, ill-nourished; having the appearance of general arrested development occurring about the age of puberty. Has a good family history; father and mother with six brothers and sisters are all healthy or at least free from convulsive disease. A carpenter by trade; married and has three children; they are small and ill-looking, but have not required Medical aid for anything beyond the ordinary diseases of childhood. The patient confesses to great sexual excesses since the age of fifteen, and to this cause he attributes the fits. He had not any convulsions when young, neither has he had chorea.

The first attack occurred one evening when reading the paper; he was perfectly well at the time, but exceedingly tired with his day's work; he had long been suffering from languor and exhaustion after work. He thinks that he fell asleep cross-legged, and on awaking in about two hours found his right leg jumping about; he had time to observe this and straightway had a fit; he bit his tongue, and did not recover till morning. Since then he has had the fits every week. They always at first occurred during the night. Sexual excitement often, but not always, induces them. He has always a warning. If asleep he becomes wide awake, has a general rigor, and finds the left leg violently agitated. The leg is, in fact, seized with clonic convulsions; after two or three minutes he loses his senses, and becomes universally convulsed, but the most violent movements are in the left leg. There is no subsequent paralysis, and the stupor is not very prolonged nor profound. Latterly the fits have come on in the day. He can induce a fit at pleasure, and has done so several times in my presence. He does so

by rubbing and gently pinching the popliteal space of the left leg. After a minute the leg is violently flexed on the thigh; he says there is a not very painful feeling of cramp, which comes and goes several times in a minute; at length he falls forward and on his side, the face becomes pale, he loses consciousness, and becomes universally convulsed.

The convulsions are not nearly so severe, according to the account his wife gives, as when the fit comes spontaneously. The fit does not last five minutes, and he soon recovers his usual condition as to intelligence, power of locomotion, etc. He occasionally has these cramps in the popliteal space without the fit following. The occurrence of one fit gives him perfect immunity for three or four hours, so that if he wishes to go anywhere or do any particular work, he will induce the fit "to have done with it." Memory good. Intelligence also good. General organic functions well performed. No inter-paroxysmal phenomena of note. There is nothing different in appearance, touch, etc., from the same region in the other limb, to be detected.

October 16.—The treatment consisted in the application of a narrow strap with a buckle attached, to be worn loosely on the middle of the thigh; and he was directed to pull this very tight, and secure it, on the slightest approach of either rigor or cramp in the limb. Cod-liver oil was also ordered, with a view of improving general nutrition, and progressively increased doses of belladonna every night.

November 2.—Has had many threatenings in the way of cramp, but tightening the ligature prevented the fit.

December 14.—Has had two fits. He was too confident about himself, neglected to wear the strap, and could not apply it quick enough to stop the fit. Continue the oil and belladonna.

21st.—Has had three fits; the ligature is no longer of use. To apply a blister round the middle of the thigh, a quarter of an inch wide, wearing the strap below it, which is still to be tightened on the approach of a fit. Continue the medicine.

January 29.—No fit since the blister. Has had frequent cramp in the left calf as well as in the popliteal space. This is speedily cured by the strap and by his wife forcibly extending the leg. Repeat medicines.

June 28.—After remaining away six months this patient came back to say that he never had a fit unless he voluntarily produced it by tickling the popliteal space. Pinching or rubbing this region would not now be sufficient to produce the fits. He said he endeavoured to produce the fit "to see how he was getting on." He had continued the cod-liver oil, but given up the belladonna for the last three months.

This patient, at first, I believed to be a malingerer, but I satisfied myself that he was not so. The suddenly-changing countenance and dilated pupil, opposite to the full light of the window, excluded the supposition. Moreover, he had bitten his tongue on one occasion. All the other symptoms might have been assumed. The *rationale* of the treatment by cod-liver oil is simple enough; concerning the use of belladonna, I will speak at another time.

Cases where a cramp in particular sets of muscles, of the fingers, forearm, or leg is the initial symptom or aura of the approaching fit, are common. Forcible extension of the part is the best remedy, and next to it the application of a ligature. Many fits are to be prevented by these means alone, but in almost every case I have seen, there comes a time when the aura escapes the ligature, creeps under it, and then the ligature alone from that period ceases to be of certain use. Extension of the cramped muscle, in like manner, is often performed too late; still, unlike the ligature, the forcible extension seems afterwards of use, although it frequently fails. When such failure arises, I would advise you to adopt the circular blister in addition to the other measures. I have succeeded with the combination in preventing the attack, but, it must be confessed, have as often failed. One mischief arising from allowing the aura to creep under the ligature, results in the transference of the aura to other and inaccessible parts. I have one case where the premonitory cramp shifted from the right leg to the small muscles of the left face; these muscles were violently affected with clonic spasm. In another case, the aura consisted of a spasmodically closed left hand. The fits were prevented for three months. They occurred with great regularity during the first hour of sleep, and an attendant, watching and holding the patient's hand, forcibly extended it on the occurrence of the spasm. One evening the attendant left the room, a fit came on, and from that time the patient has fits with a premonitory cramp in various places, or with none at all. I find those cases where the aura has become transferred, or where it has disappeared, are always most intractable to treatment, and for this reason I always endeavour now to stop the aura by repeated blistering, both circular above the aura, and local at its seat, also by strongly narcotic liniments, or by the actual cautery, before trying the ligature.

Recurring to the case of H. H., I found no symptom, no negation of function, nor, in fact, anything to lead to an opinion that any organic disease of brain or cerebro-spinal centre existed. There was no proclivity to centric disease to be made out from his family history, neither did the fits come on at one of the leading periods of evolution, teething, puberty, etc. It was simply a case of faulty nutrition generally, and of the cerebro-spinal centre in particular. A morbid degree of reflex excitability in the centre resulted, with but little reflex force. The first fit was probably caused by some local pressure or irritation—as might arise from sitting cross-legged—on the excito-motory nerves of the popliteal space, acting on the highly irritable reflex centre; we know subsequent fits could be caused after this manner. How increased reflex excitability is caused in cerebro-spinal or any other centre must depend alone on nutrition, increased in degree, but faulty in kind. Do you ask, Why should faulty nutrition especially fix its seat in the excito-motor centre? Because in this case the patient had unduly excited this centre, and with increased action comes increase of nutrition, and correlatively of function. We have a history of great sexual excesses from his early years.

The next case I shall mention is one you would diagnose easily enough, if you conducted your examination closely.

I. D. (vol. E. p. 57), aged 13, has had epilepsy eighteen months. Had no fits in infancy, no nervous affection up to the period of present illness. Family history good. First attack occurred after eating some crab-fish for supper. It was long and violent. The second occurred after two months' interval; cause of this not known. The third occurred in fourteen days, and they have recurred at varying intervals,—from one week to three weeks. They always occur during the night. He screams sometimes, and not unfrequently bites his tongue. Latterly his mother has noticed that some days he rubs his left cheek, complaining of face-ache, after which the fit follows. He is a healthy-looking boy; tolerably well-fleshed, although the muscles feel somewhat flabby. He is intelligent, and does not appear to have suffered in apprehension or memory; no headache nor vertigo. Organic functions tolerably well performed; no inter-paroxysmal phenomena. On examining the mouth, there is to be seen a molar tooth considerably decayed, with a swollen gum around it, and partly growing over into the cavity; it is not very tender to touch, and the examination does not give rise to tooth-ache. On questioning, I find the sensation which the boy experiences before a fit does not seem to be one of pain, but rather of an indefinite uneasiness. He always has a fit the night on which this uneasiness comes on. Has never felt it during the day; it is always about seven to eight o'clock. I desired the mother to have the tooth extracted, and ordered a simple saline with a quarter of a grain of belladonna, to be taken twice daily. This was in June. The tooth was extracted next day. I saw this boy once a fortnight from that time for four months, but he has had no recurrence of the fit.

In this case I believe an unfelt aura commenced about the gum surrounding the tooth, and was not recognised till some degree of inflammation arose, and thus a modification of pain became associated with the aura, and directed attention to it. I have at the present moment another and very similar case to this. The extraction of the tooth has not yet been performed, so that I cannot give you the result. When epilepsy occurs in children, I always examine the mouth with the twofold view of observing the vault as to height, narrowness, etc., inasmuch as no observation about the cranial development can be complete without such examination, and of ascertaining whether any cause of eccentric irritation may spring from decayed or crowded teeth. I would observe here that, later, the *dentes sapientiæ* often become a source of considerable irritation, and, therefore, of complication at least in the epilepsy of young persons.

I would now direct your attention to very bad cases of epilepsy, and in illustration give you a short history of unfortunately a very unsuccessful one:—J. T. (vol. E. p. 129), aged 28, married eight years, has three healthy children, and

the last had convulsions from soon after its birth to the time of its death, which occurred when 9 months old: family history otherwise good. Does not know that he had fits as a child nor chorea. Was healthy until the occurrence of epilepsy. Attributes it to a fright he received when travelling in Spain. The party, of which he formed one, was attacked by robbers. Had a fit at the time. They recurred at varying intervals until a few months ago, since then they have come on regularly twice weekly, always at night, and in batches of three or four fits. He does not scream, neither does he bite his tongue; he is generally and equally convulsed, and his wife fears he will sometimes die, because he holds his breath so long. Sexual indulgence is almost always followed by a fit. The fits come on regularly on Tuesdays and Thursdays. Has not the least warning of an approaching attack. Has great wearing pain in the back for some days after each illness. No interparoxysmal phenomena beyond occasional involuntary starting; then small clonic convulsions occur in various parts of the body. Memory very bad; power of attention very feeble; apprehension slow. He is tall, very thin, of worn, languid aspect; slow in speech and motion. He has the appearance of suffering from the effects of great sensual indulgence, and confesses that this supposition is true. He was at first treated with quinine and belladonna without success, then by mineral acids, chloric ether, and cod-liver oil, afterwards with belladonna in increasing doses nightly, also by the actual cautery to the spine, still without avail. I galvanised this patient all over the body with a view of discovering an aura, without succeeding. Lastly, I directed his wife to apply a ligature around the left arm, directing its position to just below the insertion of the biceps. The ligature was to be applied on the Friday following, to be pulled tight on getting into bed, and relaxed for a few minutes every half-hour. The fits came on as usual two hours after applying the ligature, and at a time when it was tight, and the arm swollen from the pressure. On the following Tuesday the same process was applied to the right arm, afterwards to the left thigh, and finally to the right thigh. On this night no fits occurred. For five weeks fits were averted, when, without any sort of warning, a violent one came on during the day; it was followed by delirium, extending over two days, terminating in arachnitis and death. I failed to procure a post-mortem, otherwise I should give you the details of the terminal illness.

The point to which I wish to attract your attention is this: That an aura may exist in every case; I believe it does exist, not necessarily associated with sensation or irregular motion, and yet discoverable, if it exist in the extremities. The means whereby you may discover it are those mentioned in this case. To find an aura in any one of the extremities is a matter to me of great rejoicing, since the discovery doubles the chances of curing the patient.

Amongst the patients who have attended, or who are attending as out-patients here, many of whom are cured, I find the following who had these premonitory symptoms of a fit:—(Vol. E.P. p. 57) sensation of a peculiar kind, indescribable, in both hands; twitching in legs (p. 89); pain in pudenda (p. 100); jerking of left arm (p. 116); shaking and temporary palsy of fingers (p. 188); squint for two days (p. 196); trembling and paralysis of left leg and hand (p. 234); shaking and tonic contraction of both hands (p. 248); only trembling of both hands, especially of fingers (p. 256); strong contraction of fingers of right hand (p. 282); strong contraction of right thumb (N. p. 16.)

Vol. E. Extreme coldness of all fingers (p. 8); coldness of fingers and cold perspiration (p. 11); pain at the back of the neck (p. 12); itching at the anus (p. 16); pricking in right hand (p. 126); pain on micturition (p. 134); cramp of arm and forearm (p. 163); pain at the seat of a blow or fall on the side of the head (pp. 193, 200, 270).

It would be impossible for me to give the details of these cases now, or even of the successful ones; but there is one method of treatment which I ought to mention, to be put in practice when an aura arises from a part of an extremity, when the method by ligature and blistering fails, that method is by division of the nerves going to the part where the aura arises. I have not yet adopted the practice, but there are many cases on record where it has succeeded. Portal gives the following:—

A servant girl had epileptic fits preceded by a pain at the extremity of the index finger of the right hand. A ligature round the forearm, as well as the application of other means, failed to give relief. The branches of the radial nerve going to the finger were divided during a fit, and the patient was completely cured.(a)

Cullen has a similar record of a case cured.

Amputation of a finger or toe from which the aura arose, has been practised with success. I cannot but think that division of the nerves would have been equally successful. There are even cases of amputation of a limb, and of castration, where the operations were successful in preventing any more fits. Such proceedings are hardly to be thought of, and I think unnecessary.

In another class of cases where epilepsy results from a blow with or without wound on the scalp, after the application and failure of blisters, and of the actual cautery, trephining offers a rational means of cure; yet if the symptoms lead to a decided feeling of certainty that there is diseased bone, and a projecting inner table, with constant irritation of the branches of the fifth on the dura mater, or even of local inflammatory action, I should still use the means mentioned before trephining. By-and-bye I will give you the details of a case in illustration of this principle. Trephining has been successful in many cases, however, where these gentler methods of treatment have not been tried. I would not immediately trephine were I quite certain of diseased bone, because it is not the disease in the bone which causes the fit, but extension of the irritation from it to the dura mater, on which the reflex nerve, *par excellence*, of the body is distributed. The amount of that irritation may be lessened or subdued, the fits prevented, and an operation, at all times hazardous, avoided. But the cause of the fit, the source of the aura, may be outside the bone, in the periosteum or tissues above it; this is probable enough if there be a cicatrix, and then trephining must be considered an unnecessary dangerous method of cure.

In conclusion, I would say to you as a fact of the greatest importance, when you have a case of epilepsy, endeavour to find the aura. If it exist in the extremities it may be accompanied by a sensation of pricking, tingling, or indefinite sensation, or by cramp. If you can localise it, try what blistering or the ligature will do, or after blistering apply to the denuded surface chloroform liniments; if these fail, try the actual cautery, and if in a limited locality, as in a spot, the moxa; lastly, section of nerves going to the part; if there be signs of an old wound, open the seat of it, destroy the cicatrix before trying section of the nerves. If the patient insists he has no premonitory warning, and the fits come at regular intervals, ligature each limb successively; failing in this, try galvanism over the whole surface of the body, let the power be strong and the conductors dry. Your object is not to induce muscular contraction, but a commotion in the excito-motory system of superficial nerves. There is a girl now in the Hospital in whom galvanism will produce a fit when one pole passes over the region of the left ovary. In this case I believe ovarian irritation is the cause of the fits; the galvanism (with a dry conductor) does not penetrate dynamically to the ovary, it acts in a different manner, which I will explain at another time.

Poisoning by Oxalic Acid.—A case of accidental poisoning by oxalic acid took place last Saturday night in the neighbourhood of Gray's Inn-lane. The poison was obtained in mistake for Epsom salts from Bainbridge and Pound's shop in Leather-lane. The packet containing the acid was labelled "poison," but the woman who bought it could not read. She mixed the poison with water and gave it to her husband. He hurriedly drank the liquid, but immediately ejected some portion of it. Vomiting and violent purging set in directly, insensibility followed, and in less than an hour after taking the draught death ensued. Mr. Cuff, a Surgeon, having made an examination after death, stated at the inquest that the appearances of the stomach indicated the presence of some irritant poison. He found eight or ten ounces of dark fluid in the stomach, which he tested for oxalic acid with the nitrate of silver and the lime tests, and both gave the characteristic precipitates. He had no doubt that death was produced by oxalic acid. The jury returned a verdict of accidental poisoning, but added to their verdict an expression of their conviction that sufficient caution was not used in selling drugs at Mr. Pound's establishment.

(a) "Obs. sur la Nature et le Traitement de l'Epilepsie." Elements of Medicine.

ORIGINAL COMMUNICATIONS.

ON THE

THERAPEUTICAL USE OF ELECTRICITY AND GALVANISM.

By JULIUS ALTHAUS, M.D., M.R.C.P. Lond.

The history of the therapeutical use of electricity and galvanism is identical with that of the discoveries made of the physical, chemical, and physiological properties of these agents. Electricity has, in fact, been medically employed as long as it has been known. The torpedo, or electric ray, which, when touched at any part, and more especially at the fins, gives a shock analogous to that yielded by the Leyden jar, was used in antiquity for the cure of headaches and gout, and highly recommended by Scribonius Largus, a Physician of the time of the Emperor Tiberius. Pliny mentions the electricity of this fish as a valuable therapeutical agent, and Dioscorides has recorded a case of prolapsus ani which was cured by it. In the same manner the negresses, in certain parts of Africa, have from time immemorial been accustomed to place weak and sickly children in pools of water containing electric fishes.

After the invention of the ordinary electrical machine, in which electricity is produced by the friction of a glass plate or cylinder between cushions; and still more after that of the Leyden jar, Medical men in Germany, France, and England turned their attention to the therapeutical use of an agent evidently so powerful. A German Physician of the last century was the first to describe a case of paralysis cured by sparks drawn from the electrical machine (1744). Jallabert, the Abbé Sans, Mauduit, Sigaud de la Fond, and Cavallo afterwards used and preconised the same means for almost every form of disease; and a few Italian Practitioners, not satisfied with the effects of electricity alone, resorted to the ludicrous device of using in their machines glass cylinders filled with Peruvian balsam, purgatives and various other medicines, which were believed to be endowed with tenfold power if introduced into the system in so subtle a manner.

The method of applying frictional electricity, which is even at the present day sometimes used, is as follows:—The patient is placed upon an insulating stool, and made to take hold of the prime conductor of the electrical machine. Sparks are then drawn from the body either by the hand of the operator or by metallic conductors. By this proceeding a sharp pricking or pungent sensation is produced at the points touched; and after a time the skin is reddened and an eruption, resembling lichen urticatus, breaks out. In the electricity room of Guy's Hospital, where formerly, under the superintendence of Dr. Golding Bird and Dr. Gull, electricity was extensively employed, the usual practice was to take sparks from the spine in the following way: a brass ball, furnished with a wire or chain in connection with the ground, was passed up and down in the direction of the spine of the patient, who was seated on an insulating stool, while the machine was in action. By this means sparks were made to pass from the skin to the brass ball, and thence escaped through the wire or chain to the ground. Shocks from the Leyden jar were especially employed in the treatment of amenorrhœa, when they were directed through the pelvis. No doubt the electrical machine and the Leyden jar have afforded relief in certain affections of the nervous system, in which it may be presumed that the use of any counter-irritant would prove beneficial; but they are powerless in a number of other affections in which galvanism and electro-magnetism find their appropriate sphere of action.

Amongst the numerous discoveries made in the last decennia of the eighteenth century, one which has proved of surpassing importance for scientific and practical purposes, was that of galvanism (1786.) The fundamental fact is, that a continuous electric current is produced by the chemical action of two heterogeneous conducting bodies. After this had once been established, the discovery of the voltaic pile (1800), of electro-magnetism and magneto-electricity (1831), were the natural consequence. The nature of these several agents, and their relations to the animal economy, have, by a series of laborious experiments, protracted over the space of more than half a century, been in a great measure unveiled, and thus not only an infinite number of most important physical and physiological discoveries have been rendered possible which could not have been made by any other means, but also remedial agents obtained which, although not more wonderful in their effects than quinine, iodine and digitalis, are of the greatest intrinsic value, and which, in the treatment of many affections, cannot be replaced by any other.

Shortly after galvanism had been discovered, therapeutical experiments were undertaken with it, and a copious literature on its Medical virtues soon sprang up, amongst which the treatises of Grapengiesser, Jacobs, Augustin and Aldini, deserve special mention. The physical, chemical, and physiological properties of galvanism, as they became successively known in course of time, excited the imagination of Physicians and laymen in an equally powerful manner; and it was concluded that so marvellous an agent must needs possess wonderful curative powers. It is difficult at the present time to imagine the enthusiasm, bordering on intoxication, for the newly-discovered remedial agent, which reigned in the commencement of the present century, and the unbounded expectations which were entertained as to its therapeutical value. It was not only recommended and used for almost all diseases which exist, but was also believed to be able to rescue from death persons who had just been hanged or drowned.

Of the physiological action of the galvanic current upon the different tissues of the human body very little was known. The voltaic pile was indiscriminately applied, even for such diseases in which it must have done harm; moreover, the power of this apparatus is, for reasons which I have explained in my "Treatise on Medical Electricity," very variable, and after a certain time entirely disappears, so that there was sometimes no current at all, while at others there was either a weak or a very strong current, and by the use of the latter accidents of a serious character were produced. The confidence in the curative powers of galvanism was, therefore, entirely shaken, and the voltaic pile ranged together with talismans, amulets, animal magnetism, and mesmerism, amongst the curative treasures of the quacks.

Further physical and physiological discoveries on the nature and properties of galvanism were evidently necessary before it could be employed with a fair chance of success in the treatment of disease. It was in Italy that some time afterwards the physiological part of the subject was more thoroughly investigated, especially by Nobili, Marianini, and Matteucci; while Becquerel in France, Daniell and Grove in England, and Bunsen in Germany, invented galvanic batteries which furnished a much more constant current, and one, therefore, more applicable for Medical purposes than that yielded by the original voltaic pile. Sarlandière made a great step towards improving the mode of applying the galvanic current by using acupuncture needles, whereby the current is allowed to penetrate more deeply into the tissues, and at the same time is limited to those parts requiring the galvanic stimulus. By means of this proceeding, Magendie effected some remarkable cures of paralysis, amaurosis, and neuralgia. It having become known that galvanism may cause the blood to coagulate, Guérard and Pravaz proposed curing aneurisms by galvano-puncture. Wires rendered incandescent by the galvanic current were employed for cauterisation by Heider, Middeldorpff, and Amussat. Others succeeded by the same means in decomposing urinary calculi, and in promoting the growth of healthy granulations and the cicatrisation of ulcers.

In 1831, Faraday discovered that electric currents of instantaneous duration are developed in conducting-wires by the passage of an ordinary galvanic current (electro-magnetism), as well as by the approach to, and withdrawal from, conducting-wires, of a permanent magnet of steel (magneto-electricity). By this discovery a new agent of remarkable power was added to the electric stock, and which was, in course of time, proved to possess physical, chemical, and physiological properties entirely different from those of the continuous galvanic current. Our knowledge of the physical phenomena connected with electro-magnetism was considerably enlarged by the researches of Professor Dove, Henry, Becquerel, and De la Rive; and Weber, Valentin, Dubois-Reymond, Helmholtz, Ludwig, Claude Bernard, and many others, zealously investigated the physiological effects of these newly-discovered currents. Machines especially designed for their therapeutical application were constructed by Messrs. Pixii, Saxton, Clarke, Keil, Legendre and Morin, Siemens and Halske, Stöhrer, and many others; while to Duchenne belongs the merit of having first effectually directed the attention of the Medical Profes-

sion to the therapeutical use of induction currents, the methodical application of which was called by him "Faradisation," in honour of Faraday, the discoverer of this form of electricity.

I have already mentioned that the physical, chemical, and physiological effects of the continuous galvanic, and of the interrupted (Faradic) current, are entirely different; from which it may be inferred that we cannot expect beneficial results from an indiscriminate use of either of these agents, each one of which has its own special sphere of action. To give only one instance, the continuous galvanic current, if applied to any part of the face, excites the retina in a remarkable manner, so that the person subjected to the operation perceives a flash of light, the intensity of which is directly proportional to the power of the current employed, and inversely proportional to the resistance offered to the passage of the current. A flash is produced by the application to the face of a very feeble continuous current, such as is excited by the contact of a half-crown piece and a penny; it is much more distinct if, instead of this arrangement, zinc and silver, or zinc and gold, are used; and if the current, furnished by a number of large plates, as in Grove's or Daniell's battery, were used, instantaneous blindness might be the result. If the skin of the face is dry, the flash is less vivid than if it be previously moistened, which diminishes the resistance to the passage of the current. Moreover, the flash is stronger if the conductors are directed to the conjunctiva, or to the Schneiderian membrane, or to the mucous membrane of the cavity of the mouth, than if they are applied to the skin of the face; since the delicate epithelium of the mucous membranes offers much less resistance to the passage of the current than the epidermis. This same continuous galvanic current has only little action upon the muscles of the face, while, on the other hand, the interrupted Faradic current has little or no action upon the retina, and a powerful effect upon the muscles. These facts are of great practical importance, as it follows from them that we may use the interrupted current without danger in paralysis of the portio dura, for exciting the paralysed muscles of the face, and that we must avoid in this affection the application of the continuous galvanic current, as thereby the vision of the patient might be endangered, while no good would be done to the facial paralysis. Other facts relating to the difference in the effects of galvanism and electro-magnetism will be mentioned hereafter.

A most important point for the Practitioner who wishes to use electricity as a remedy is the choice of good apparatuses furnishing a continuous and an induced electric current; and the want of success of an electric treatment is, in many instances, due to the insufficiency of the machines employed. I shall first consider the apparatus by which a continuous current is furnished, and then pass to the induction machines.

1. *Continuous Current.*—Most of these machines (the ordinary galvanic batteries) are constructed without due regard to the claims of Medical practice. The voltaic pile has been entirely given up, as it is not only a very troublesome apparatus, but the current yielded by it is subject to considerable variations. Cruikshanck's battery is more easily manipulated, but its current is likewise inconstant. The galvanic poultice of M. Récamier, and the electric belt of Messrs. Breton are ingenious inventions, but they suffer from the same defects as the voltaic pile. Pulvermacher's chains furnish a comparatively small quantity of electricity, but which possesses a high tension; the current generated by them is very inconstant, and their therapeutical effects have been greatly exaggerated. The only batteries by which a really constant current is furnished, and which should therefore be exclusively used by Medical men, are those constructed by Daniell, Grove, and Bunsen. Daniell's battery consists of zinc and copper plunged separately into acidulated water, and a solution of sulphate of copper, the two metals being separated from one another by a porous diaphragm. The surface of the copper is not altered in this arrangement, as by the decomposition of the sulphate of copper, a thin film of clean metallic copper is deposited on it. In Grove's battery the copper is replaced by platinum immersed in nitric acid. This modification increases the power of the current, which is, moreover, nearly as constant as that furnished by Daniell's battery. Bunsen's battery differs from Grove's in this particular, that carbon, which is more negative and much cheaper than platinum, is substituted for the latter metal. The form of the original Bunsen's battery has recently been abandoned, as it was found that the cylinder of carbon generally used rendered the current inconstant after a time. This drawback does, however, not attach to Deleuil's carbon, which affords every advantage that can be reasonably desired. This peculiar kind of carbon is prepared from the deposit formed in the Paris gas-pipes, and is distinguished by its hardness, durability, uniformity, and its property of giving a very constant galvanic current.

2. *Induced Current.*—The induction machines used for Medical purposes are either magneto-electric (rotatory) or volta-electric. The latter have the advantage of being self-acting, and of allowing an extremely nice regulation, not only of the intensity of the current, but also of the rapidity of the intermittences. Rotatory machines were believed to be superior to those just mentioned, on account of their being cleaner and always ready for action; but these two properties are by no means wanting in the volta-electric machines of recent construction, amongst which that made by M. Stöhrer, of Dresden, may be mentioned as a specimen of what induction machines ought to be. It would, however, be erroneous to suppose that the current induced by voltaic electricity and that induced by a permanent magnet of steel possess exactly the same physiological and therapeutical properties. Such is not the case, and the reason will be readily understood if we consider that the variations in the density of the volta-electric current are far more sudden than those of the magneto-electric current. The former, therefore, act more on the motor nerves and muscles and the sentient nerves, while the magneto-electric current acts more on the retina, and is more beneficial in the cure of rheumatic callosities than the volta-electric current. The chief properties which induction machines suited for the treatment of disease should possess are, that the dose of electricity may be exactly measured to suit the different constitutions, age, or sex of the patients, and the more or less severe degree of the affection for which it is employed; that both the current of the thick and of the fine wire should be obtainable; and that the rheotome or cut-current should be so constructed as to allow of slow and rapid interruptions *ad libitum*, and should not easily get out of order.

The continuous galvanic current, which always moves in the same direction, possesses considerable chemical effects, as it easily decomposes water and saline solutions, oxygen and acids being attracted to the positive pole, while hydrogen and alkalies accumulate at the negative pole. On the contrary, induction currents, which move alternately in different directions, have only a slight chemical action, for as each wire serves alternately as positive and negative pole, their chemical effects are in a great measure neutralised as soon as produced. Thus, if induction currents are made to act upon water, both hydrogen and oxygen appear simultaneously at either of the poles, and, being in the nascent state, immediately combine again to form water. *If we, therefore, wish to make use of the chemical effects of electricity, it follows that the continuous galvanic current alone should be used.* This applies chiefly to the electric treatment of aneurisms and varices, which has not yet been so extensively resorted to as the advantages connected with it seem to warrant.

By making a continuous current act upon blood, we may cause it to coagulate, not only when taken out of an artery, vein, or capillary vessels, but also while still circulating in the living body. Clots may thus be produced at a given point in the circulating system, those of venous blood being less firm and more dark than such of arterial blood. *Clots are, however, only produced at the positive pole*, where, in consequence of the decomposition of the salines contained in the blood, acids are liberated. Alkali accumulates at the negative pole, where, therefore, the blood is rendered more fluid. Thus it is obvious that Surgeons cannot be successful in the electric treatment of aneurism, if, as has repeatedly been done, induction currents, which have only trifling chemical effects, are employed instead of the continuous current, and if, instead of the positive pole, both poles, or the negative pole, is made to act upon the blood. Moreover, M. Steinlein has drawn attention to the circumstance that the nature of the metal of which the needles used in such proceedings are made, has a certain influence upon the effects produced. If the needle connected with the positive pole is of platinum, coagulation proceeds slowly; if the platinum needle has a point of iron, the effect is quicker; and the action is most rapid if a needle of zinc, or a steel needle covered with a layer of zinc be used. This is due to the fact that the acid liberated at the positive pole forms a chemical compound with the metal of which the

needle consists; so that, as zinc and iron combine much more readily with chlorine and acids than platinum, the two former metals will naturally be more efficacious in causing coagulation than the latter. The mode of treating aneurism by electricity should, therefore, be as follows:—A steel needle covered with zinc, and connected with the positive pole of a pile of twenty pairs of Bunsen's, Grove's, or Daniell's battery, feebly charged, should be inserted in the centre of the sac, and the circuit be closed by placing a metallic plate connected with the negative pole upon the surface of the tumour. The current may thus pass for from fifteen to twenty minutes, after which coagulation is established. M. Pétrequin and other Surgeons have cured aneurisms by this proceeding, which is chiefly to be recommended in cases where other and more simple methods cannot be conveniently employed on account of the seat of the tumour. Varices have been successfully treated in the same manner.

(To be concluded.)

ON THE OPERATION FOR PHIMOSIS.

By HENRY DICK, M.D.

In the year 1855 I published in the *Medical Times and Gazette* (No. 284) an article "On Operation for Phimosis," and drew the following conclusions, viz.:—

1. That congenital phimosis consists in contraction of the orifice of the prepuce (integument and mucous membrane) and of its mucous lining.

2. That for the removal of phimosis, incision of the orifice and subcutaneous incision of the mucous membrane are quite sufficient.

3. That this operation involves no mutilation.

I still adhere to these conclusions, even more strongly than when I wrote the article alluded to, because since then I have performed the operation eight times, and each time with the most complete success.

My last operation was upon the child of a Medical man, and I performed it in the presence of my friend Mr. William Adams and Mr. Baillie, of the Bengal Medical Staff, and they can testify not only to the simplicity of the operation, but to its full success.

I still adhere to the same rules in operating which I stated in 1855, but only in the adult, because in children the knife cannot be easily managed: in such cases I prefer to use scissors in cutting the orifice and the contracted mucous membrane. The orifice in children is generally so much contracted, that it is with the greatest difficulty a very small grooved conductor can be introduced under the prepuce, and on this conductor I divide the orifice of the prepuce.

After dividing the orifice the operator will find it more convenient to lay aside the conductor, and whilst the assistant is drawing back the prepuce, the operator should cut with the scissors the contracted mucous membrane. One blade of the scissors should be rounded in order to avoid wounding the glans penis.

In the adult I still adhere to the same rules which I mentioned in 1855. There is hardly any bleeding worth speaking of.

In some rare cases the frenum must be cut, because it seems too short; but from this rule I have begun to depart occasionally, because in the case of the Medical man's child I wanted to cut the frenum, but the father was opposed to my doing so, as he feared the effect of loss of blood from the small arteries of the frenum, the child not being very strong. After some weeks the frenum spontaneously yielded by the prepuce being drawn back several times a-day.

In order to ensure success, after the operation is performed the prepuce should be drawn back, and some oil applied to the divided mucous membrane. I do not use any other dressing, neither is any bandaging required. After eight or ten days all is well, and not the least mutilation can be observed.

In justice to Mr. Skey, I must state, that in his work on Operative Surgery he admits that the simple incision of the mucous membrane is sometimes sufficient.

Congenital phimosis is a deformity arising from the mucous membrane being too short, and sometimes from the frenum not being sufficiently long. Circumcision, or any modified operation of circumcision, whatever name it may bear in works of Surgery, is wanton. Cutting away the prepuce, or a ring of the prepuce, stitching together the cut skin and mucous membrane, are irrational operations, and are just as absurd as is amputation of the limb for the cure of club-foot, as the old Surgeons used formerly to advise.

In conclusion, I would state that enuresis nocturna and other symptoms of irritation of the urino-genital organs in children have very often their origin in phimosis. In children phimosis is not so easily detected as in adults. In two of my cases in children, enuresis and irritation of the bladder completely ceased after the removal of the phimosis.

I must add, that after the operation the prepuce should be drawn back very frequently during the first six months, to prevent recontraction, which otherwise would be likely to ensue. I have found this precaution very necessary to be taken in the cases of children, in whom this tendency of the mucous membrane to recontract is stronger than in adults. As the operation, when performed in the manner I have now and previously (1855) described, is attended with so little pain, it is not at all necessary to administer chloroform.

ON THE ACTION OF CERTAIN SUBSTANCES UPON PHTHISIS.

By RICHARD PAYNE COTTON, M.D.

Fellow of the Royal College of Physicians, London; Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

No. IX. Quinine.

With the view of testing, so far as practicable, the general therapeutical value of quinine in the treatment of consumption, I prescribed it for twenty-five patients, in various stages of that disease; avoiding, as in all my previous experiments, any selection of cases, and excluding only those unfitted by the existence either of acute symptoms or special complications. The dose consisted, according to circumstances, of one or two grains two or three times a-day; and was continued for periods varying from three to ten weeks. Notes were regularly taken by Dr. Harington, resident clinical assistant.

Ten of the patients were in the first, six in the second, and nine in the third stage of phthisis. Sixteen were males, and nine females. Their ages varied from twenty to fifty years.

During the administration of the quinine seven improved *greatly*, five improved *slightly*, and thirteen either did not improve at all or became worse. Of the twelve improved cases, seven were in the first stage, two in the second, and three in the third stage; and, of the thirteen cases in which the quinine seemed to be inoperative, three were in the first stage, and ten were the subjects of more or less advanced tubercular softening. Thus it would appear that whatever good may have resulted from the quinine, it was the most decided in the early stage of the disease.

In fourteen of the cases cod-liver oil was taken during at least a portion of the time. There was an increase of weight in ten out of the twenty-five patients; such increase occurring in five who had taken the oil, and in five who had not taken it, but being most marked in the former.

In four cases the quinine appeared to disagree, producing dyspepsia and loss of appetite. In six instances patients who had made little, if any, progress under the quinine by itself, were more or less benefited when steel was added to it. Two of these cases were remarkably good illustrations of the combined influence of quinine and iron; one was in an early and the other in an advanced condition of disease, but both left the Hospital with every local and general symptom in abeyance, and their health fairly good, after taking for several weeks two grains of quinine twice a-day, and a tablespoonful of steel wine immediately after dinner.

From these facts, compared with previous observations on other remedies, the following are the conclusions at which I have arrived:—

1. That although quinine may be well adapted to certain cases in which there is an evident cachexia, it is greatly inferior, as a general remedy in phthisis, to some other tonics, whilst in a few instances it is unsuited to the disease.

2. That the combination of quinine and iron is sometimes very beneficial.

Clarges-street, Piccadilly.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

CASES OF DISEASE OF THE CEREBELLUM.

In relating the following cases no attempt will be made to settle any point in the physiology of the cerebellum. The symptoms are so various that it would be scarcely possible from them to deduce any trustworthy rules for the diagnosis of future cases. No attempt, therefore, will be made to draw general conclusions, and the remarks introduced will be simply to draw attention to the more prominent and remarkable symptoms in each. In but one of them, so far as we know, was there any suspicion of disease of the cerebellum, and for this reason the notes of the cases will, however imperfect, at least have this value, that they are free from the suspicion of having been taken in support of any particular theory. Probably, however, if disease of the cerebellum had been suspected, more minute inquiries would have been made.

It is well known that many physiologists, Flourens, Carpenter, and others, consider that the cerebellum has the function of co-ordinating muscular movements, and that in uncomplicated disease or injury of this organ, although power of motion is not lost, yet the power of performing any definite movement is gone. The limbs can be moved, but walking, etc., cannot be performed.

In the *Journal de Physiologie*, 1861, is a paper, by R. Wagner, on the "Functions of the Brain." He has found by experiments that superficial injuries of the cerebellum produce no disturbance of function, but that deeper injuries do. He finds, however, that most of the phenomena disappear in about half an hour, and that the animal experimented on walks well in a few days. He agrees with Dr. Brown-Séquard that disorder of movement is due to injury of the neighbouring parts, and not to absence of the cerebellum.

Dr. Brown-Séquard says that—1. Notwithstanding the absence of the cerebellum, voluntary movements can be regularly performed. 2. That, without lesion of the cerebellum, irritation of the neighbouring parts can produce disorder of movement even more considerable and more complicated than those which we see after removal of the cerebellum.

In his work on the "Physiology of the Nervous System" he says:—

"In fact, the least irritation of several parts of the encephalon, with only the point of a needle, may generate very nearly the same disorder of movements that follows the extirpation of the cerebellum. I have thus been led to conclude that, after the extirpation or after the destruction by disease of a large or small part of this nervous centre, it is not its *absence* but some irritative influence upon *the parts of the encephalon that remain unaltered* which causes the irregularity of movements."

In this Journal for February 23, 1861, we reported several cases of abscess of the cerebellum, and in none of them is there any note of disorder of movements. The cases, however, were acute, and the patients during the greater part of the illness were in bed. In recording the morbid condition in disease of the cerebellum, it is very desirable to state the exact amount of disease, and if by extension or pressure it affected any other parts. For instance, amaurosis, as will appear from the following cases, is not unfrequent in disease of the cerebellum. Now, here it is of the utmost importance to ascertain if the disease of cerebellum, *e.g.*, a cancerous tumour, pressed upon the corpora quadrigemina, and thus caused the blindness.

The following case would appear to prove not only that an extensive injury to the cerebellum does not interfere with the power of performing voluntary movements, but also that it does not do so even for a time. The patient not only walked, but walked well, both immediately and some time after the accident. In fact, he did not die because the cerebellum was torn, but from the blood subsequently poured out from a wounded vessel in this part.

Is it possible that, just as one hemisphere of the cerebrum will, to ordinary observation at all events, do the mental work of the individual, one cerebellar hemisphere is enough for the co-ordination of movements?

POPLAR HOSPITAL.

BLOW ON THE BACK OF THE HEAD — NO PARALYSIS AND NO LOSS OF POWER OF CO-ORDINATION — DEATH FROM EFFUSION OF BLOOD ON THE SURFACE OF THE BRAIN— LACERATION OF THE CEREBELLUM.

[Communicated by Mr. BROWNFIELD.]

John S., a stout, well-made man, aged 35, was admitted into the Poplar Hospital on June 7, 1856. He had fallen into the hold of a ship, a distance of about sixteen feet. He fell so that the back of his head struck against a railway bar. The immediate effect was a slight stunning, but so slight that he was able to walk out of the ship's hold on to the deck before a Surgeon, who was at once sent for, could arrive. The Surgeon found him apparently so little hurt, that he said "Oh! you are all right; go home and rest yourself." The patient's employer, however, persuaded the man to go to the Hospital. He walked there without assistance, the distance being about one-third of a mile, and arrived about nine o'clock in the morning. Mr. Brownfield had some difficulty in persuading the man to stay, but by telling him that although he did not appear much hurt then, he might suffer afterwards, he was induced to stop. He then took leave of his employer and walked upstairs without help to bed. A purgative and a saline mixture were ordered for him, and he was directed to keep quiet. On examining the head there was nothing more than a little tumefaction of the scalp at the back of the head. At one o'clock Mr. Brownfield again saw him. The man then said that he was quite well, and appeared so. He continued in about the same condition until about seven at night. His respiration then appeared quickened, and his pulse began to increase in frequency and force. At ten p.m. he was apparently moribund; he was profoundly insensible; his breathing was stertorous; pulse full and frequent; countenance livid; perspiration profuse. He was then bled, and regained sensibility so perfectly as to be able to tell the place where he lived. He remained in this improved condition until about midnight, when the symptoms mentioned returned. He died about two hours later.

There had been no symptoms of uneasiness about the genitals.

Autopsy.—There were marks of injury about the scalp, but there was not the least sign of injury to the bones of the head anywhere. The skull cap was very thick; under the dura mater, on the surface of the left hemisphere, blood was found effused, and was traced forwards and then downwards around the anterior lobe, and then backwards along the base of the skull to a laceration of the cerebellum. This laceration was of the left lobe, on its inferior and posterior surface. It was vertical, an inch and a-half in length, and was situated in the lobe, quite away from the pons or crura cerebelli. It was half an inch deep. The sinuses, nerves, etc., were intact. It was quite clear that the blood had escaped from the rent in the cerebellum, and had then passed forwards along the base of the skull, then upwards round the anterior part of the hemisphere, and then on to the surface. It did not, however, extend far back near to the site of the external injury.

Dalton, in his work on Physiology, says that "if the cerebellum be exposed in a living pigeon, and a portion of its substance removed, the animal exhibits at once a peculiar uncertainty in his gait and in the movement of his wings. If the injury be more extensive, he loses altogether the power of flight, and can walk or even stand with great difficulty. This is not owing to any actual paralysis, for the movements of the limbs are exceedingly rapid and energetic; but is due to a peculiar want of control over the muscular contractions, precisely similar to that which is seen in a man in a state of intoxication. The movements of the legs and wings, though forcible and rapid, are confused and blundering; so that the animal cannot direct his steps to any particular spot, nor support himself in the air by flight. He reels and tumbles,

but can neither walk nor fly. The sense and intelligence at the same time are unimpaired."

"Usually such an operation upon the cerebellum, as we have mentioned above, is fatal within twenty-four hours, probably on account of the close proximity of the medulla oblongata. But in some instances the pigeons upon which we have operated have survived, and in these cases a *re-establishment of the co-ordinating power took place.*"

"These instances show, accordingly, that a large portion of the cerebellum may be wanting without a corresponding deficiency of the co-ordinating power. If the theory of Flourens be correct, therefore, these cases can only be explained by supposing that those parts of the cerebellum which remain gradually become enabled to supply the place of those which are removed. It is more probable, however, that the loss of co-ordinating power, which is immediately produced by taking away a considerable portion of the nervous centres, is to be recognised rather as the effect of the *sudden injury to the cerebellum as a whole*, than as due to the mere removal of a portion of its mass."

Dalton, however, thinks that many facts derived from comparative anatomy seem to favour the opinion of Flourens; and that we often find the development of the cerebellum to correspond very closely with the perfections and variety of the voluntary movements.

"The complete function of the cerebellum, accordingly, as a nervous mass, cannot be regarded as positively ascertained; but so far as we may rely on the results of direct experiment, this organ has evidently such an intricate and peculiar connexion with the voluntary movements, that a sudden and extensive injury inflicted upon its substance is always followed by an immediate though temporary disturbance of the co-ordinating power."

In the case we have just related there were, as we have said, not even any immediate symptoms of loss of co-ordinating power. Perhaps the difference between an injury in which the laceration was below, and the cranium uninjured, and an extensive injury by experiment in which the cranial cavity was opened may explain this. Again, in Dalton's experiments both cerebellar lobes were injured.

YORK COUNTY HOSPITAL AND YORK DISPENSARY.

SEVERE HEADACHES—EPILEPTIFORM SEIZURES — AMAUROSIS — SUBSEQUENT INCOMPLETE HEMIPLEGIA — DEATH — AUTOPSY — TUBERCLE OF THE CEREBELLUM.

(Under the care of Dr. SHANN and Dr. TUKE.)

Robert D., aged 43, a man of temperate habits, was admitted an in-patient of the York County Hospital, under the care of Dr. Shann, on August 9, 1855. The man stated that he had been out of health since March, and that he then began with severe pain across the forehead, which continued up to his admission. For the first ten weeks the pain was so severe as to prevent him lying down, as it was much worse in that position. It subsequently abated, and for six or seven weeks it had been much less. He had about this date, however, six "fits" within an interval of a fortnight, and subsequently several slighter attacks of a similar character. He stated that these fits were always preceded by an aggravation of pain in the head. He fell, and lost consciousness. The fits were followed by drowsiness, but not by sleep. On examination during his stay in the Hospital, Dr. Shann noted on his admission that the mouth was slightly drawn to the right side. His urine was passed in large quantity, and had been, he said, from the commencement. Its specific gravity was 1003. He suffered somewhat from dyspepsia, but his chief complaint was of great and frequently-recurring giddiness. Dr. Shann prescribed tonics and aperients. Cusparia, decoction of aloes, and syrup of the iodide of iron.

On September 28, being improved, and having less pain and less dizziness, he was made an out-patient.

He continued improving until October 20, when he had sensation of swimming in the head, with temporary "weakness in the limbs." The attacks only lasted for a minute or two, and occurred several times in the day. He still passed a large amount of urine, which was not examined for sugar.

On the 29th he had recurrence of the pain, but less dizziness, and he had got rid of the attacks of loss of power in the limbs. He was also improving in general health, gaining flesh and strength. He, however, never regained any great degree of health, and suffered often from pain. He left off attending on December 22.

He was re-admitted on February 23, 1856, as an out-patient. He said that he had never passed a day free from pain and dizziness since he was last at the Hospital, and that for the last three weeks the pain had been much worse, and the last few days, more especially, during the night. He had also had a "fit" a week before; it came on quite suddenly, without any warning. He did not lose consciousness for more than one minute.

February 23.—On his admission to-day it was noted that his pulse was 69, small and weak; tongue clean; appetite good, and that his food agreed. His bowels were regular, and urine (now) natural.

March 8.—The pain in the head more constant and more severe; he is dizzy, and loses sight for a moment when the pain comes on severely.

22nd.—The pain in the head has been very severe, but rather better for the last few days. On rising after sitting he loses power over his limbs for a short time.

April 6.—He is much improved in appearance, and he has much less dizziness and pain. Discharged.

July 12.—Re-admitted out-patient. He has been tolerable till about a month back, and has been able to do a little work, but has been very dizzy after sitting to it, and has had pain in the head. For the last month he had severe pain in the head daily, and had not been able to work. He is very dizzy, and occasionally falls. His sight fails several times a-day; but at intervals he can see pretty well. The pain is worst in each temple, as though "his brain was crushed." He is very weak. Tongue slightly white; appetite tolerable, and food agrees; bowels regular; urine natural; pulse 80, and moderate in strength.

17th.—No improvement.

31st.—He has had seven "fits," in which he lost for a few minutes the power over his limbs. He did not lose consciousness. He has had violent pain in both temples, shooting over the head, and attended with much dizziness and impaired vision. The attacks of pain come on two or three times a-day, and last a few minutes. Pulse 84, thready. Appetite not good; bowels regular; urine excessive in quantity and pale.

August 14.—Had no return of the fits for the last two weeks, and feels better in his head, though he is frequently dizzy, and his sight is very dim. Tongue clean, but rather flabby; appetite good; bowels regular; urine still excessive, and generally pale, but the last day or two rather higher coloured, and had a film like milk floating on the surface this morning.

September 11.—Much less pain in the head, and less dizziness, but still has dimness of vision at times.

27th.—Going on well, and wishes to return to work, but is not able to work as a tailor on account of dimness of sight.

He was subsequently, January 25, 1858, admitted a patient at the York Dispensary, under the care of Dr. Tuke, and was chiefly seen at home by the House-Surgeon. He was now very much depressed, and suffered intense pain, and spoke imperfectly. It was thus impossible from him to obtain any clear idea of his case, and no opportunity occurred to obtain it from his friends. He was still subject to the fits, in which he was not seen by the House-Surgeon. They were described as being a slight trembling, and lasting for a few minutes.

In reference to the duration of his illness, which all along the man limited to the period we have given, it was ascertained, by inquiry of his mother, that he "had had *it* all his life, and would, when a child, sit for hours together swaying his head to and fro." Subsequent inquiries, however, failed to elicit any information as to previous ill health. On the contrary, it would appear that he had been previously quite healthy. At all events, he had had no symptoms referable to disorder of the nervous system.

He had now, however, some slight loss of power on the right side, and in reply to questions on this symptom, he says that he had a stroke two months ago, since which some difficulty in speaking followed. The mouth was drawn to the right. He had no loss of sensation anywhere. No cardiac disease was detected. His urine was normal in quantity, and contained no albumen; specific gravity 1015. He took a variety of remedies with no apparent benefit, though he fancied at one time that phosphoric acid relieved him.

On March 11 he became worse, complaining terribly of the pain in his head; his sight became exceedingly dim, and his

walk very unsteady,—not dragging his legs, but appearing unable to direct his lower extremities. He took chloric ether and ammonia chiefly.

21st.—He had the iodide of potassium with the compound infusion of gentian, which, with occasional doses of morphia at bedtime to allay distressing pain and restlessness, he took till his death.

26th.—He became delirious from two to nine o'clock.

27th.—Quite conscious. Has intense pain in the temples; pupils rather dilated; no increase of paralysis; pulse very feeble.

April 10.—Has been more or less delirious; refusing food or stimulants; has evidently intense pain in the head; bowels always require enemata. He died this morning early,—not comatose, but delirious and exhausted.

Autopsy, Twelve Hours after Death.—The scalp was rather injected. No marked thickening or thinning of the bones of the skull.

On removing the calvaria and examining the membranes they were found to be dry. There was a very slight amount of fluid in the sac of the arachnoid. The arachnoid membrane itself was slightly opaque in parts. A careful examination of the cerebrum failed to detect any disease. The cerebellum was then examined, and its conditions found to be the cause of the symptoms which had been observed during life.

The right lobe was greatly softened throughout, and in parts was quite diffluent. In connexion with this a considerable deposit of tubercle was found, especially at its base. The left lobe was scarcely at all softened, but at its base there was a deposit of rather hard, yellowish tubercle of considerable size (the size of a hazel nut). We were not permitted to examine any other part of the body.

Portions of the tumour were examined under the microscope. The examination fully confirmed the opinion previously formed of their tubercular character.

One portion was examined by a microscopist who was not informed of the particulars of the case, and he considered it to be tubercle.

In this case the prominent symptoms are headache, the epileptiform seizure, giddiness, the amaurosis, and the affection of motion. It is to be regretted that there was no ophthalmoscopic examination, and also that the urine was not examined for sugar. The specific gravity was very low at the time that he passed the large quantities of urine, so that, if present, the amount of sugar must have been very small.

In diseases of the cerebellum when there is pain it is generally at the occipital region, but in this case it was chiefly in the forepart of the head, and subsequently on both sides, as if, the patient said, "his head had been squeezed between two boards." Probably in cases of this kind pain may depend not on disease of the brain mass, but rather on secondary implication of the membranes by distension or actual involvement of their structure. We must remember, however, that although healthy nervous matter is not sensitive when cut, it may when diseased become highly sensitive. The giddiness, the epileptiform seizures, and the attacks of loss of sight are, perhaps, the most interesting symptoms, probably all due to disorder of the circulation.

Blindness not uncommonly occurs in cases of tumour of the brain. Sometimes the optic nerves are compressed, and here the blindness is easily accounted for. Sometimes, also, one optic nerve only on the cerebral side of the commissure is affected, and then we get half-blindness of each eye. In many cases, however, it is, as in the cases we are now relating, somewhat difficult to account for the production of the amaurosis. In this Journal for January 25, 1862, is recorded a case of Ecchinococcus in one Hemisphere of the Brain. The patient was a girl, thirteen years of age, under the care of Dr. Risdon Bennett, in St. Thomas's Hospital. In the report of the case, it is stated that she could neither walk nor stand, "but when lying in bed she could move the legs freely." There was no loss of sensation anywhere. There was complete blindness, and by the ophthalmoscope the optic discs were seen to be white and atrophied. There was pain also, mostly at the vertex; but at the first the pain was at the occiput, where she had had a blow. Tumour of the brain was diagnosed, and "from the peculiar impairment of locomotive power, it was thought probable that the tumour was in the cerebellum." She had also epileptiform seizures. This case, during life, was certainly very like many cases of disease of the cerebellum, and yet the cerebellum was quite healthy. The blindness, in such cases of tumour of the brain, not directly affecting the optic tract, may be produced by the general pressure, or by reflex irritation, or because in some way the tumour interferes mechanically with the blood-vessels, so that parts at a distance do not receive their due supply of blood. It may be that the nutrition of the optic tract is interfered with because the nerves supplying its blood-vessels arise or pass in the parts injured. In this case, and also in Dr. Gull's case, the optic discs were found to be quite white (white atrophy), and the rest of the fundus healthy. This is the appearance in nearly all cases of amaurosis in cerebral disease. In some, however, there appears to be not so much a defect of circulation as an obstruction, the optic papilla being swollen, ill-defined, and blood being effused near it, or in other parts of the fundus, as if the vessels had burst from over-distension. A well-marked case of this kind was shown to the writer by Dr. Bader. He considered that there was probably a tumour of the brain, and that by pressure it mechanically obstructed the circulation. In the ordinary white atrophy the amaurosis may be due to defective supply of blood from some excentric irritation contracting the blood-vessels, just as a leg wastes in infantile paralysis. The fact that sometimes, though in few cases, and then only at the beginning of the disease, the sight varies remarkably, tends to favour this idea; but at the same time it is well known that in organic disease of the brain intermission of symptoms is not very uncommon. It may be that it is an instance of atrophy of the nerve following loss of its function, just as it atrophies when the eyeball is lost. In the case of amaurosis above mentioned, in which there was supposed to be mechanical obstruction to the vessels, the optic discs became after a time quite white, although their edges were ill-defined, and there were still the remains of the apoplectic effusions.

That amaurosis does often occur in connexion with disease of the cerebellum, and also of disease of the spinal cord, has long been noticed. To explain how it occurs is not easy. It seems certain that the cerebellum is not the origin of the optic nerve fibres, as in Combette's case of congenital absence of the cerebellum (quoted by Mr. Solly in his work on the Brain) all the senses were perfect. "The child could see, hear, and taste in a perfect manner." Dr. Brown-Séquard thinks that the defect of sight "is a result of an irritation of certain parts of the cerebellum acting upon the nutrition of some parts of the nervous apparatus of vision." He says also:—"It is not usually on account of a pressure upon the corpora quadrigemina that amaurosis exists in cases of disease of the cerebellum, as we find that loss of sight is sometimes observed in one eye only, and that is the eye on the side where exists the alteration in the cerebellum; while, if it were owing to a pressure on the tubercula quadrigemina, the loss of sight would be on the opposite side." In the case we have given, in which there was defect of s ght, both eyes were affected. In Dr. Gull's case there was very likely, towards the end at all events, some interference with the corpora quadrigemina. The tumour was large, and no doubt, when the venæ Galeni were pressed on, causing the effusion of serum and the "dropsy" of the brain, the corpora quadrigemina would also be interfered with.

One remarkable feature, however, in the case related (Case 2), the sight varied remarkably. Just as the man had had epilepsy and loss of function of the brain, so we might say he had temporary epilepsy of the retina (or optic nerve). In epilepsy the loss of consciousness is by some believed to be coetaneous with contraction of the blood-vessels of the brain, attended also by paleness of the face, and probably also, to use such an expression, if we could see it, paleness of the retina and paleness of the brain. It would be very desirable to examine the retina under such circumstances. The writer has been for some time on the look-out to examine the retina during a paroxysm of epilepsy. We are not, however, often present when a patient has a fit, or we arrive, as generally happens, just too late, and when in time, from the struggling of the patient, the examination is impracticable. In one case, however, a case of "epileptiform convulsions," the writer had the opportunity of examining the fundus of the eye, if not during a genuine fit, at least during a condition in which the consciousness was lost, and in which the pupils, ordinarily small, were dilated as if under the influence of atropine. The optic discs were extremely pale. Once the vessels disappeared altogether for an appreciable time. After a while, however, they reappeared, and were

found to vary with the respiration. When the patient *inspired* the vessels disappeared, returning again on expiration, like lines of red ink on white paper. This examination was too hurried, and the results too indefinite, to make it an observation of any great value. The case, too, was not one of genuine epilepsy, but one in which there was cancer of the sphenoid and secondary cancer of the glands in the neck. The fits occurred either as a result of obstructed circulation, or from pressure on the nerves in the neck. It is mentioned here merely to hint that it is possible to study the cerebral circulation by examining the vessels in the eye. It might be possible to examine the fundus of the eye in an epileptic guinea-pig, as we could induce a fit when we were ready for the examination.

In a very few cases of epilepsy there is complete blindness for an appreciable time before the paroxysm—the patient is conscious, and yet in total darkness. Cases in which there is temporary failure of accommodation are common enough, especially where the eyes are hypermetropic. In these cases the patients say that for a time they "cannot see;" but it is easily ascertained that they can see, but that they see nothing distinctly—nothing in definition. The total blindness is quite a different thing; and just as epilepsy is supposed to depend on contraction of the vessels of the brain, so the temporary amaurosis, in these cases, probably depends on contraction of the blood-vessels of the retina—an epilepsy of the retina. In cases in which loss of sight is followed by the epileptic paroxysm, may we not say that the contraction of the blood-vessels has begun in an outpost of the cerebral circulation (the retina being supplied by branches of the same vessels as the brain, these vessels being supplied by the same vaso-motor nerves), and that on extension to the other branches of the carotid, the "brain's blindness," loss of consciousness, supervenes? In the other cases of disease of the cerebellum there is no note of any temporary intermissions. The progress is gradual, and the loss of sight permanent. To pursue the subject of the cause of reflex (?) amaurosis in these cases, we may mention that it is not unusual, Dr. Brown-Séquard says, for the guinea-pigs rendered epileptic by section of one lateral half of the spinal cord, to become amaurotic. Whether they are first subject to occasional and temporary loss of sight, it is, of course, impossible to tell. In a case reported in one of the Indian Journals, by Dr. H. V. Carter, in which it was clear, by the symptoms, that a man from an accident had suffered an injury similar to that artificially made in the guinea-pigs, there was a transient epileptiform seizure and transient affection of the sight of one eye. Dr. Carter writes:—"One night the patient had a sudden attack of dizziness and confusion, and the head fell towards the left side, and the sight of the eye temporarily failed."

Dr. Brown-Séquard has frequently drawn attention to cases of paraplegia in which amaurosis has also existed, without any symptoms to suggest disease within the cranium. These cases he refers to the same category as amaurosis from disease of the cerebellum—the blindness in both being the result of eccentric irritation. Dr. Wilks also has observed several such cases. We shall report a series in a future Number.

In cases of paraplegia of the lower limbs, there could of course be no pressure on the optic tracts, and there does not appear to be greater difficulty in assuming a relation to exist betwixt the cerebellum or the spinal cord and the retina than between certain injuries in the dorsal region of the spinal cord, and a definite tract on one side of the face, as in epilepsy artificially produced in the guinea-pig. That there is in this latter case a relation is proved, not only by this part only having the power of exciting the fits, but also by its nutrition suffering, so that, on this side, lice are often found, but not on the other. To use a common expression, the tract on the face and a certain part of the spinal cord are "correlated," and it is, we think, possible that there is a similar correlation between the cerebellum or (posterior column of?) the spinal cord and the retina.

Andral, in his work on Clinical Medicine, gives cases of diseases of the cerebellum in which there was amaurosis, and also cases in which there was not. The following quotation is interesting:—

"With respect to the fourth case published by Dr. Michelet in his Thesis, it is deserving of all our attention."

"This was the case of a girl, eighteen years of age, who ten years before her death had had an attack of apoplexy, the result of which was *amaurosis without any other paralysis*, and habitual headache. An apoplectic cavity of an old standing was found in the right lobe of the cerebellum."

Speaking of another case in which there was hemiplegia as well as blindness, and in which the disease found was softening of one lobe of the cerebellum, Andral writes:—"With respect to blindness, it seems at first that it has nothing to do with disease of the cerebellum, and yet this case is not the only one in which different affections of the cerebellum have been accompanied by a loss of vision. May this fact be explained by the anatomical relations established between the cerebellum and the tubercula quadrigemina by means of the prolongations known by the name of *processus a cerebello ad testes?*"

GUY'S HOSPITAL.

LOSS OF POWER OF WALKING—SUBSEQUENT COMPLETE PARALYSIS OF THE LEGS AND RIGHT HAND—AMAUROSIS (OPTIC DISCS ANÆMIC)—HYDROCEPHALUS—DEATH—AUTOPSY—CANCER OF THE CEREBELLUM.

(Under the care of Dr. GULL.)

Charles Frederick W., aged 6, was admitted on March 9, under Dr. Gull's care, for loss of power in the legs, total blindness, etc. It appears that on November 18 he had a fall (it was not until some time later, however, that it was found out that he had had a fall), and on that day he began his illness by vomiting. The next thing wrong noticed was, that he squinted. His father, a very clear-headed intelligent soldier, said that "the left eye was turned in" (paralysis of the left external rectus). He then suffered from giddiness. He began about this time to totter in walking, would separate his legs widely apart, and walk with a rolling gait.

In December he began to lose power in his legs; his legs would stiffen out, and in order to go from one spot to another, his father said "he had to make for a point and then rush to it," not being able to walk quietly. He used to sleep badly at night, but a good deal in the day-time. He gradually, in the course of a month, quite lost the power over his lower limbs. It was supposed by a Doctor to be worms, and on this idea he was treated, but without any benefit, and no worms were seen. It was in December, too, that his sight began to fail. His father noticed that the child would feel for things instead of taking them directly. It was noticed that the "black of the eye was getting larger." He has never suffered from severe pain, but has occasionally a sudden pain in the head for an instant only, and the same in the limbs attended by twitching.

He has always had good health until this disease. When an infant he never had fits, and got his teeth well. About the time his eyes failed, his urine began to be passed abnormally, *e.g.*, he could often go and not be able to pass any. It now comes involuntary, and is very offensive. His fæces, too, are sometimes passed unawares. He has a large round head and face. He is not unintelligent, but dull and heavy. The head is remarkably large, but the forehead does not overhang. The forehead is narrow, but from this point to the parietal eminences the head gradually expands, and there attains an enormous breadth. There is a remarkable protuberance over the occipital bone about the size of half a billiard-ball, but more expanded. It is hard and painless. Immediately above this, in the line of suture, the bones do not appear continuous. The pupils are dilated widely as if by atropine. He now lies in bed, not caring to be moved, but not particularly feverish. He is quite blind, and cannot see the light. He hears well with each ear (carefully tried). There is no drawing of the face; masseters both act; he moves his arm well; his legs are paralysed; feet extended; the heel drawn up. Sensibility appears to be perfect. The thighs are drawn together by adduction. The "straightening out" of the foot, his father says, was the first symptom of paralysis.

On stripping him and desiring him to walk, he is found to be quite unable to do so. The legs appear stiff and rigid, and he cannot place one before the other. The great toes are turned up, and he does not appear to make the slightest effort to support himself. The head falls forward on the chest, and seems too heavy for the muscles to support. His limbs are remarkably well developed. When in bed, and lifting his legs up two or three times, at first they fall again and appear totally paralysed; but if this be continued they become more rigid, and do not fall. He can raise the arm comparatively well, placing the hand to his head when desired to do so;

can also grasp any object firmly. Finger-nails are bitten. Hears and answers questions correctly, expressing himself in a peculiar drawling manner, twisting his mouth in various directions, and corrugating the eyebrows; for instance, when asked how he is, he answers, "Qu—ite w—ell, th—ank you." Hearing is good; taste normal; takes his food slowly; appears in good spirits, talking to himself and laughing at times; memory not affected; passes his water and motions under him.

Abdomen is soft and pliant; skin normal; heart sounds normal, but its action is quickened by the slightest exertion; chest sounds normal, and breathing natural; pulse irregular, at times slow. The circumference of the head is 22½ inches; from one parietal eminence to the other, across top of head, 10½ inches.

March 11.—A mixture containing iodide of potassium and bichloride of mercury was ordered.

13th.—Appears slightly flushed in the face; no pain; no alteration in his symptoms; and no sickness, squinting, or convulsions. Bowels open.

15th.—At the depression behind, there is clearly non-closure of the posterior fontanelle. The bones of the head, says Dr. Gull, are elastic and soft. The head is much enlarged; it measured, from chin round head to chin again, 25¼ inches; round by forehead and occiput, 22½ inches; over vertex, from one parietal eminence, 10½ inches. Dr. Gull believed that there was some disease in the vermiform process of the cerebellum.

[For most of the above we are indebted to Mr. Lionel Burrell, and for what follows to Mr. Walter Beeby.]

April 3.—The patient was removed to "Stephen" Ward, in order that he might still be under the immediate care of Dr. Gull. Since admission, his speech has been gradually getting not exactly worse, but slower; for instance, if told to count, he is so long before he begins that it would seem as if he had taken no notice of the request. At length he will say, "One," and then, after a considerable pause, "Two."

On admission, he was in much the same condition as mentioned above, but his symptoms were rather worse. His sight was quite gone, and he was able to count twenty, but very slowly. Understood what was said to him. Feet were extended; legs slightly rigid. On nipping the soles of feet, the whole muscular system became rigid and excited. Right hand powerless, with slight disposition to contract. Fontanelles again opening, and quite compressible.

April 24.—Appears to be rather worse, and has more trouble to feed himself.

25th.—Having been again measured, his head was found to be 23½ inches in circumference, 13 inches from ear to ear, and 15 inches from nasal bone to occipital protuberance. On May 24, taking the same measurement, it was 24, 13½, and 16 inches.

May 7.—Cod-liver oil was prescribed in addition to the mixture.

28th.—Eyes were examined by the ophthalmoscope. The optic discs were round, and very anæmic,—the appearance so often found in amaurosis associated with cerebral disease. The rest of the fundus in each eye was normal.

June 8.—Breathing, 18; pulse, 108.

28th.—Pupils, which have hitherto been much dilated, are rather less so, and especially that of the right eye, which is rather more turned up than its fellow of the opposite side. There is a marked swelling at the back of the head, a little above the occipital protuberance, which has lately increased in size. He has been gradually sinking, and for some time unable to take his medicine with any regularity.

He died on June 29.

The following is Dr. Wilks' account of the post-mortem appearances:—

The head was immensely enlarged. The bones were felt to be non-united, but no spaces between them, except at the fontanelles. On removing the calvaria the bones were found to be joined merely by tough membrane, and in no places united by bone. Owing to the great size of the head these bones were necessarily much enlarged, there being ossa triquetra to make up the increase. It appeared as if when the head began to enlarge and the bones to separate that a fresh growth took place on the circumference, and thus nearly an inch in diameter of new osseous tissue appeared, added to the old as a border. The centre of ossification was well marked, and the radiated formation of the bone was well seen. So marked was this at the circumference that it appeared as if the bones had been forcibly separated from one another (as no doubt the tendency was). The anterior fontanelle was small. In the posterior one a slight ossification was commencing at a separate centre. The occipital bone projected backwards in a very remarkable manner, appearing externally as a tumour. The dura mater adherent to the bones along the mesian line as seen in children. On removing the dura mater the arachnoid appeared quite healthy, but the brain like a bag of fluid, so that if unsupported it would have ruptured by its own weight. The stretching of the convolutions was very remarkable; the width of these being in some places more than double the usual size seen in an adult. This was most evident on the posterior lobes. On opening the brain it was seen to consist of a large sac filled with fluid; the latter was quite clear and presenting the usual characters of hydrocephalic fluid. The amount drawn off was twenty-eight ounces, and reckoning what was lost it may be stated that nearly two pints of serum were contained in the ventricles. The foramen of Monro was widely open, and besides this the septum was torn, leaving a large opening. The septum lucidum was remarkably stretched, and its layers separated, and thus the fifth ventricle was seen as a large cavity, capable of holding three or four drachms of fluid. On removing the brain an irregularity was seen on the lower surface of the cerebellum, but no tumour was visible on its surface. On cutting through the middle of the cerebellum a large cancerous tumour was seen about the size of a billiard-ball. This was more or less round, was firm, and the section showed a well marked cancerous appearance, pinkish in colour, vascular, and emitting milky juice. It did not encroach much on either hemisphere, but was situated at the junction, or, perhaps, commenced in the vermiform process. It encroached on the fourth ventricle, but did not protrude into it. It also pressed on the pons and all surrounding parts. The *iter a tertio ad quartum ventriculum* was freely open. The veins of Galen were necessarily pressed on. The optic nerves appeared healthy. *Lungs.*—The posterior part of the lungs showed lobular pneumonia. No disease was found in any other organ of the body.

The diagnosis in this case was made very early, and by three Medical men. It was evident that there was organic disease in the head of some kind. All diagnosed disease of the cerebellum, but for different reasons. Dr. Gallwey, who sent the case to Guy's Hospital, considered that it was disease of the cerebellum on account of the disordered movements. Dr. Wilks, who also saw the case early, thought that, in association with the general symptoms, it might be inferred from the amaurosis. Dr. Gull thought that the disease would be in such a place as to interfere with the circulation, and thus account for the ventricular effusion. He stated, very shortly after the patient's admission, that he believed there was disease of the vermiform process of the cerebellum. The autopsy, as will be seen, showed that this was correct.

When admitted, the lower limbs, at all events, were totally paralysed, and the inability to walk was then due to paralysis solely. "He could not place one leg before the other." Of course, very early, when the disease was very limited, the staggering gait may have been due to want of co-ordinating power; but if so, we must suppose that certain parts of the cerebellum co-ordinate for the lower limbs, and certain parts for the upper, and that in this case the former only were affected. As not only were not the upper limbs paralysed, but the boy was, although blind, able to perform certain definite movements. "He can raise the arm comparatively well, placing the hand to his head when desired to do so."

Dr. Rolleston, in a paper on the Cerebellum, in this Journal, February 18, 1860, says that—"1. Inability to maintain the erect position when raised into it, coupled with complete power over either or both of the legs when in the horizontal position; and 2. Stiffness of the neck," point all but pathognomically to cerebellar diseases.

In the case related by Dr. Rolleston to illustrate the above statements, there had been no loss of use of the arms. He thinks that "what we know of the pathology and physiology of the cerebellum is clearly explicable on the hypothesis that that great nerve-centre stands in the same relation to the motor-nerve nuclei of the trunk and (posterior?) limb muscles, as the corpora olivaria do to the motor nerve nuclei of the face, tongue, and throat muscles, viz., that they regulate bilateral action."

In the case we have related there was inability to maintain the erect position, but there was paralysis also.

In the case Dr. Rolleston relates and in others which he quotes when the patient was raised up the head fell to one side, and this was due, not to the weight only, but because the patient could not use together the muscles on both sides of the neck. She could easily turn the head to one side. There was "incompetence for bilateral, coupled with competence for unilateral, action."

In the case we have just related the head fell forwards on the chest. There is no note of any spasm of the muscle on either side of the neck. Probably the head fell from its weight. There is no note on this point in the other cases.

In future reports it is desirable that the condition of the muscles of the neck, *i.e.*, their power, not merely of acting, but of acting together, should be noted. The same, too, should be noted as to the lower limbs, if the patient can move the legs freely in bed when it has been ascertained that he cannot walk. J. H. J.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, AUGUST 30.

THE WAKLEY TESTIMONIAL.

It is easy to place a man in a false position, and it is quite patent that this was the result of the mistaken attempt to get up a testimonial to the late Mr. Wakley. The failure of the undertaking may furnish a text and point a moral. To be an honourable tribute to a man's character or services, the success of such a movement must not depend on the chances of forced enthusiasm, nor be fed by the machinery of begging-letters. Testimonials started by private persons are nowadays rightly looked on with suspicion. They are not in accordance with the undemonstrative English character. Public appreciation of public merit is neither to be coaxed nor spurred into action. If such a tribute be not spontaneous, it is a sham. The projectors of these things, moreover, are not always actuated by the purest motives. A certain kind of notoriety, and a certain reputation for public spirit, is to be got out of them. People who get them up, for the time, shine by borrowed light, and reflect some of the stray beams emanating from their idol. They make acquaintances and friends, and unknown mediocrities become the "small known." We do not mean to say that the gentlemen who started the subscription to the Wakley fund were actuated by any such interested motives. We only state a general and thoroughly recognised fact. But we do say that the ill-advised project has failed, and, in failing, has done needless and unjustifiable harm to a public man. It is no kindness, but it may be a considerable injury, to a man in the position of the late Coroner, to bring his name before the world as an object for exceptional admiration and reward, and thus to expose it to the shafts of unfriendly criticism, and to offer a premium to detraction. The Editor of the *Lancet*, the Medical reformer, the Coroner for Middlesex, and Member for Finsbury, needed no such vulgar decoration. In his own particular walk of social service he was pre-eminent, and the position which he had achieved was its own reward.

In asking society and the Profession to bestow another, the promoters of the testimonial committed a mistake, which has had exactly the opposite effect to that which they desired. We repeat that no men have a right to place a public man in such a hazardous and questionable position. Success could add nothing to Mr. Wakley's real standing; the consequences of failure fell not on the managers of the project, but on the person it was intended to honour. The following is a short history of the fortunes of the undertaking:—Early in 1859 the testimonial was set on foot by Messrs. D. O. Edwards and Godrich; a meeting was called of Mr. Wakley's friends, and several of the leading members of the Profession attended. The promoters relied upon three classes of persons for support; first, Mr. Wakley's friends in the House of Commons, and the Liberal party in general; secondly, the Coroners throughout the Kingdom; and thirdly, the Medical Profession. The sum they hoped to raise, after paying all expenses, was £1000. The first party appealed to entirely failed them. Mr. Walter (of the *Times*), M.P., in a letter to Mr. Edwards, stated it as the general opinion of the members of Mr. Wakley's party, that they did not consider Mr. Wakley's senatorial career so pre-eminent as to merit such an exceptional distinction as a public testimonial; and that, in Mr. Walter's opinion, his services as Editor of the *Lancet* had been sufficiently rewarded by the success of that publication. This was the first mire through which Mr. Wakley was dragged by his officious friends. Another disappointment was the coldness of the directors of the public press. With the exception of aid lent by the editor of the *Morning Advertiser*, the other organs of public opinion remained inexorably silent. Of the county Coroners thirty sent subscriptions,—a fair proportion considering the number of lawyers who fill these offices. The last and main body appealed to was the Profession of Medicine. Amongst these, if Mr. Wakley had made many friends, he had assuredly as many enemies. Many of the most influential among the former objected, as we think most rightly, to bestowing on *living men* honours of this kind; others were undecided as to the form which the testimonial should take, and for this reason excused themselves; and the result was, that by great exertion £460 were raised, £240 of which were spent in advertisements, printing, and collecting. The document from which this account has been taken animadverts strongly on the editorial departments of the Medical journals in general, and on that of the *Lancet* in particular, for not pressing the duty of subscription on their readers. We do not know what the writer's views of propriety and delicacy are, but he seems to be quite oblivious to the fact that Mr. Wakley was closely connected with our contemporary to the last day of his life, and that he was a man not entirely devoid of decent pride and self-respect. The truth is, that, with all deference to the promoters of the Wakley Testimonial, it was a scheme ill-advised and calculated to do harm. It is now proposed that the remainder of the sum, with such additional subscriptions as can be procured, should be devoted to the foundation of a "Wakley Scholarship" in the London University. To this there can be no objection. But the best memorial to a dead man is what he has done during life; and the name of Wakley will not be forgotten whilst the portals of the College of Surgeons stand open to the Profession, and Medical education in the Metropolis is no longer monopolised by an irresponsible cabal.

RACES *v.* NATIONS.

We have had before us for some little time the "*Supplementary Chapters*" which Dr. Knox has added to the second edition of his well-known work on the *Races of Men*. With the abundance of valuable works around us, we find it difficult,

even with our very able staff of Reviewers, to do full and early justice to books of great importance, unless some special circumstance give a stimulus to the pen. We find such a stimulus in the *Times* of this day, August 26, 1862. The correspondent of that paper writing from Corfu, August 15, says (the italics are ours) :—

"Nations not less than individuals have their fancies and manias, which *defy all calculation*, and to which they are ready to sacrifice almost anything. These *fancies, like fashions, are contagious*, and no system of political quarantine has as yet been invented to prevent these diseases from spreading. . .

"The pet idea of *nations in our times (!)* is, without any doubt, *nationality*. It has seized hold of the New World as well as of the old one,—the Northerners fighting to keep intact the great American nation, the Southerners fighting even more desperately to establish a distinct nationality, both sacrificing their dearest interests of freedom and prosperity to this mania; in France, a spirited people acquiescing in an all but absolute government, and finding their satisfaction in the prominent position which the ruler of France has obtained for the '*Grande Nation*;' the Italians on the point of risking all they have achieved within the last two years in order finally to constitute Italian nationality; the German talking and arguing about nothing else but the great Fatherland; and the different nations, peoples, and races in the three Eastern empires of Austria, Russia, and Turkey, warring, revolting, plotting, suffering, and sacrificing everything for the assertion of their individuality and nationality."

It is difficult to conceive greater confusion than exists in the use of the words *nations* and *nationalities* in this extract, and we could wish that scribblers, as well as statesmen, would begin life by a little study of man. Then, taking Dr. Knox for a guide, they would find that whereas Congresses of Ruling Powers and Holy Alliances may partition out a Continent at their pleasure, yet that there is no real unity nor coherence in these parti-coloured subdivisions of our maps, which we ordinarily know as "Countries," "Kingdoms," or "Nations;" that the true division of man is into *Races*, and that wherever discordant races are leagued together under an alien Government, their convulsion, agitation, and sedition, instead of being "pet ideas," "contagious fancies," or "manias which defy all calculation," are really known to the philosopher as ordinary, inherent, and unavoidable conditions. True, some alien races may consent to live in one empire, as the French, or may lazily dream of it, as the so-called "Germans;" and some communities not usually considered of alien races may fight for a separation, as Federals and Confederates are now doing; because it does not follow that race is the *only* cause of political discord,—but where races do not agree, there there can but be a hollow union and armed peace.

"No doubt," continues the *Times'* correspondent, "in some of these cases impatience at long misrule, or a desire for self-government, has not a little to do with the great popularity of this idea; but when we see cases where good government or even self-government, freedom, and all material interests are sacrificed to this one idea, we are driven to view this mania *almost in the light of a natural phenomenon*, not to be accounted for by human motives, but presenting some analogy with that mysterious process in the animal and vegetable world by which certain species gradually die out, and others arise in their stead."

If the writer had studied the subject of races, he would not have put in the word *almost*. He goes on to say, that the struggle is by no means for material privileges.

"The Ionian Islanders (he tells us) possess everything requisite for the greatest material prosperity,—a fertile soil, an excellent situation for commerce, intelligent, skilful, having all the advantages of free government, protected against all comers by one of the most powerful nations of the earth,—and this people moves heaven and earth to get rid of all these advantages and unite itself with the Kingdom of Greece, one of the worst governed countries in the world, in which last spring the people themselves rose to drive away, not only the objectionable Government, but the King himself. They have complete personal freedom, and they use it to go about plotting conspiracy in order to become part of the Greek Kingdom; they have a free press, far freer than in Greece, and they make it an engine for agitation; they have their Parliament, and, instead of trying to amend much that is defective in administration, taxation, etc., and using it for governing themselves, they lose their time in making vain protests against the decisions of the Congress of Vienna, and drawing up petitions to all the foreign Powers, which are not forwarded."

Not only are they not mollified by the Anglo-Saxon panacea, plenty to eat and liberty to talk, but flattery such as only Ο κυριος Γλαδστων could pour into their ears failed equally. They are one race, we another; and they hate us for ruling over them. *Voila tout*, but this is neither a fancy nor a contagion, but a law. Dr. Knox, who has laboured all his life to establish the influence of *race* in the destinies of *nations*, is well avenged by finding that those who once denied, finish by proclaiming his theories as if discoveries of their own, or else *adopting* them—of course without acknowledgment.

We have begun to speak of Dr. Knox's book in relation to one of the questions of the day which the Medical Journalist is bound to bring before his readers who make th "Nature of Man" their study. We may finish by urging our readers (if they have not done so already) to make "Knox on Races" a means of beguiling their vacation. The Author does not use the precise definitions, the formal divisions, the careful array of facts, and logical deductions which are looked for in formal treatises. He writes rather impulsively as an orator than as a pedant. Yet he will be found to employ the most fascinating style, the happiest and most forcible epigrammatic dicta. His disquisitions on Art, Beauty, and Colonization; on the Past of Man, and on the probable Future, are wonderfully interesting. He is of infinite service in stripping off the self-conceit arising from the lavish eulogy wherewith popular writers and spouters have belarded the Anglo-Saxon race. He shows that they are a great race; strong, hard-fisted, and unscrupulous, with utility as their idol; but that the qualities of love of art, of invention, are absent; that whilst pharisaically professing a desire to spread the Gospel and its blessings, the Anglo-Saxon is, in fact, a despiser of all races but his own, and that he seizes their lands and exterminates the rightful inhabitants with as little compunction as is felt by the brutal, so-called, sportsmen who shoot down the sacred birds of the Nile and boast of their murderous battues amongst the wild denizens of Southern Africa. We do not agree with Dr. Knox on all points, but we most cordially recommend his book to the self-satisfied Englishman, the man who believes himself and his fellows to be the depositaries of the only true religion, art, science, liberty, and beauty, who despises all other races, who looks down on the Parsees and other dark-skinned races, though their ancestors were artists, nobles, and conquerors ere the Anglo-Saxon had learned to brew a muddy beer or fatten a herd of swine. Such men, and they are legion, will find a bitter and wholesome medicine in Dr. Knox's sarcasms.

MEDICAL EDUCATION IN BIRMINGHAM.

(*From a Correspondent.*)

The Queen's College, Birmingham, claims the honour of being the first to initiate measures for the supply of those wants, and the remedy of those evils which encompass the Medical student in large towns during his attendance on the lecture-room and the Hospital. Of all modes of residence for the purposes of study, the collegiate is that which is most conducive to the attainment of knowledge and the formation of character. In point of economy, more comforts and accommodations may be obtained under a system of College life, and at a lower rate of expense, than those which are procured of an inferior sort at a higher cost at lodging-houses.

Impressed with these facts, the Council of Queen's College expended in the year 1843 upwards of £12,000 in the purchase of a freehold site, in the erection of chambers, hall,

chapel, lecture-rooms, chemical laboratory, museums, library, and other buildings necessary for the successful teaching and effectual working of a great Medical School.

A Professor of Classics (a graduate of Oxford), a Professor of Mathematics (a graduate of Cambridge)—at the present time both married clergymen,—and a Medical Tutor reside in College, and to them is committed by the Council the care of the resident students. They are required to preside at meals in the College Hall, they are not allowed to undertake any clerical or tutorial duties, except those in connexion with the College and Hospital, and they are answerable to the Council for the discipline and good conduct of the students. The College expenses, including commons, chamber rent, servants' wages, but exclusive of lecture fees, do not exceed £50 for the academical year.

Every student is required on matriculation to sign the Obligation Book, and a declaration that he will regularly and diligently pursue his studies, and observe the rules and regulation of the College. He must attend meals in the College Hall, be in College at a fixed hour, unless absent by leave of the tutor, and if he absent himself without leave during a whole night he renders himself liable to dismissal. The same penalty is incurred by any student three times proved to the Council to have incurred debt beyond his means.

The Professors are required to give systematic courses of lectures, according to the regulations of the constituted Medical authorities; previously to the commencement of every lecture, to call over the names of the students; to keep a book specifying the times of attendance of each student; and to hold examinations every week or fortnight. The Professors and Tutors are required to forward to the Council seven days before the end of each term their respective registers of attendance, or a terminal report of the attendance, conduct, and progress of each student in the respective class, from which details a general report is drawn up by the Senior Tutor, and submitted to the Council, and copies of the reports on each student are forwarded to his parent or guardian.

Scholarships, medals, certificates of honour, and other rewards are offered for proficiency, diligence, and good conduct.

The composition fee for the courses of lectures required by the College of Physicians, College of Surgeons, the Society of Apothecaries and the Army and Navy Boards, does not exceed £50. The payment may be made at once, or, on special application, in two equal sums. The following may be stated as a fair estimate of the cost of collegiate residence and lectures for a period of three years, viz.:—

Commons, rooms, servants, coal, candles, etc. .	£150
Lecture fees	50
Total	£200

To render the system pursued in the College perfect, a Clinical Hospital, for affording practical instruction at the bedside, has been erected. The Queen's Hospital contains 160 beds, which are constantly filled. During the past year relief was afforded to 1585 in-patients, of which 707 were Medical, and 878 Surgical cases; and 15,953 out-patients were admitted. To prevent the loss of time occasioned to students by running from one institution to another, and, at the same time, to afford them the means of cultivating those specialities of Medical science which, of late years, have assumed so much importance, the Committee of Council have opened a ward, containing ten beds, for the special treatment of diseases of children. Wards have also been set apart for the treatment of syphilis, and every facility is offered for attendance on midwifery cases, under the superintendence of the Surgeon-Accoucheurs; and an Ophthalmic Surgeon and a Dental Surgeon have been appointed. The fundamental laws of the Hospital require that the Physicians and Surgeons shall visit their respective in-patients twice, at least, every week, at nine o'clock, and shall deliver, in one of the lecture-rooms of the Queen's College, clinical lectures upon cases treated in the wards.

The composition fee for attendance on the Medical and Surgical practice, and on the clinical lectures for a period of three years, is £21, for the period of one year, £10 10s. The respective offices of Physicians, Clerks, and Surgeons, Dressers, Prosector of Morbid Anatomy, Obstetric Clerks, the Ophthalmic and Dental Assistants, are filled up by the Physicians and Surgeons from students for the period of one year, as rewards of merit. Medical and Surgical clinical prizes are offered for regularity of attendance on the practice of the Hospital and the clinical lectures. The Council of the College, deeply impressed with the importance of improving the preliminary education of students of Medicine, have also directed their attention, whilst thus engaged in perfecting the education of senior students, to this important subject, and opened at the same time under the same roof, an Arts branch, in order to afford junior students the advantage of receiving instruction in Latin, Greek, and Mathematics (with modern languages and sciences) from tutors of University education, in order that they may offer themselves for the middle-class examinations of Oxford and Cambridge, for the preliminary classical examinations of the Royal College of Physicians, of the Society of Apothecaries, and the Royal College of Surgeons, and for the matriculation examination of the University of London. The privilege of receiving indentures of apprenticeship without premium is secured to students who may require them.

The following is the order of study pursued under indentures:—

First Winter and Summer Sessions.	Classics, Mathematics, English Literature, Chemistry,	French, or German, and Drawing.	
Second Winter and Summer Sessions.	Classics, Mathematics, Natural Philosophy,	French, or German, or Drawing.	
	Materia Medica and Practical Pharmacy,	Dispensing at the Hospital.	
Third Winter Sessions.	Surgical Anatomy, Descriptive Anatomy, General Anatomy and Physiology, Chemistry, Surgery,	Practical Anatomy.	Practice of the Hospital and Clinical Lectures.
Third Summer Sessions.	Botany, Materia Medica, Midwifery,	Practical Botany, at the Botanical Garden.	
Fourth Winter Sessions.	Surgical Anatomy, Descriptive Anatomy, General Anatomy and Physiology, Medicine, Surgery,	Practical Anatomy.	
Fourth Summer Sessions.	Midwifery, Practical Chemistry, Forensic Medicine,	Practical Midwifery.	
Fifth Winter Sessions.	Surgical Anatomy, Descriptive Anatomy, General Anatomy and Physiology, Medicine, Surgery,	Practical Anatomy.	
Fifth Summer Sessions.	Practice of Surgery.		

The total expense of this systematic and extended course, namely, two years in the Senior Arts Branch, and three years in the Senior Department, with attendance on Lectures, Hospital Practice, Dispensing at the Hospital, Midwifery, etc., is covered by the sum of £76 annually, inclusive of Collegiate residence, commons, etc: total, £380 for the entire period of five years.

While the Queen's Hospital is the institution specially designed for the Clinical instruction of students attending the Medical classes of Queen's College, they are allowed the choice of attendance at the General Hospital, which is situated exactly opposite the Sydenham College. This School of Medicine has been established about twelve years. It was commenced originally by a few private individuals, but was soon after organised on a wider basis, and the govern-

ment vested in a Council. This Council now consists of upwards of seventy of the most eminent Medical Practitioners in the Midland Counties. The number of students has been gradually increasing, and during last Session between fifty and sixty attended the various classes.

The Sydenham College possesses an excellent museum, both of anatomical and pathological specimens. The obstetric collection of the Lying-in Hospital is also available to the students under certain regulations.

For the benefit of students of Botany, the Professors, at both the Schools, organise excursions during the Session, and the Botanical Gardens are also open to the classes for purposes of study.

The Council of Sydenham College have always strongly advocated the residence of students with Practitioners of Medicine, in order to combine, as far as possible, the benefits of the old apprenticeship system with an early attendance on Lectures. One great advantage afforded to students at this institution consists in the facility for the practical study of disease at the General Hospital, which is close to the College.

The Birmingham General Hospital was founded in the year 1774. It contains 240 beds, and last year it relieved upwards of 20,000 patients. It is situated in a densely-populated part of the town, and owing to the number of manufactories which surround it, the large quantity of machinery at work, and the proximity of the mining district, the accident wards always contain a great number of cases. The Medical Staff consists of four Physicians and four Surgeons, and there are two Resident Medical Officers, for the Medical and Surgical wards respectively. In order to ensure as much as possible the attention of students to the clinical study of disease, and a practical acquaintance with bandaging and the application of Surgical apparatus, every student attending the practice of the Hospital is required to fill the offices of Dresser and Clinical Clerk, Dr. Bell Fletcher and Mr. Alfred Baker additionally offering prizes for the best series of reports on Medical and Surgical cases. Provision has not yet been made at the General Hospital for the study of specialities, but the students can avail themselves of the privilege of attending the Hospital for Eye Diseases and that for the treatment of Sick Children, besides other smaller institutions designed for similar purposes.

THE WEEK.

LONDON BREAD.

The *Times* this week has contained an absurd letter complaining of London bread. It would not be worth notice were it not that it is evidently a masked battery, an indirect puff, of that "aërated bread" which, after having been industriously puffed by mercenary writers, disappeared from sight, and of late has been nursed into notice again. We know, as men of sense, that the best London bakers go to the best market, pay the best price, buy the best flour, and make the best possible bread in that form which the tastes and wants of the London public require. As Physicians, we know that if we require for a sickly or dyspeptic patient any bread of unusual excellency, we have only to send to Spiking, or Duer, or Stewart, or Bonthron, not to mention a score of other well-known names, and there our patients will find every kind of roll and luxurious *petit pain* that can be made from wheat ripened under the suns of America or the South and East of Europe. Having made it a special point to examine bread from many parts of England and Scotland side by side with London bread, we can assert that the latter is better than any and made of better flour. If any Londoner wish for French or German bread he can easily get it. The bakers in the Soho, or French *quartier*, will supply him daily with the long crusty loaves so familiar on the other side of the Channel. If any one chooses to deal with dirty people, who make their bread in dirty holes underground, that is his pleasure; but good bread is to be had by any one who chooses it and likes to pay the price. The bread-making machine of Stevens is to our knowledge successful. It makes better bread and yields more. We have heard the increased yield estimated at 3 per cent. by one who was not prejudiced in its favour. But this turns out bread; a good, well-fermented, wholesome, sapid bread, not the crustless lumps of baked dough which we used to have under the name "aërated." We believe that the Dauglish patent is being worked at Islington with prospects of greater success than of yore, and shall be glad if it gives us more or better bread. But it must stand the "proof of the pudding," or fail.

THE INTERNATIONAL CONGRESS ON THE VIVISECTION QUESTION.

The Report of the meetings of this Congress contains just what our readers will expect. A number of well-meaning people met together and submitted to the operation of having their sensibilities shocked by various more or less highly-charged invectives against the practice of "cutting up live animals," etc. But few of the speakers went into the real question at issue, nor were probably in any way qualified to give an opinion on it. Having so lately treated the subject at length, we shall not attempt any correction of the one-sided views advanced. We would only notice that on the part of the physiologists Dr. Kidd read a paper, in which he recommended the more general use of chloroform in experiments on animals. Mr. Travers, from a review of the history of the operation of ligaturing arteries, adduced an unanswerable argument for thus employing animal life in perfecting the means of relief for human suffering. Dr. McDonnell, of the Carmichael School, Dublin, also, and Dr. Richardson, of the Grosvenor-place School, both sent papers;—the contribution of the former placing the subject of experiments on brute animals in its true light; that of the latter asserting the very limited extent to which vivisections are practised in English Schools of Medicine, and insisting on the fact that in this country, by the employment of anæsthetics, such operations are effected with a minimum of pain.

THE EFFECTS OF THE NEGLECT OF MILITARY HYGIENE.

The Medical history of every war is replete with proofs that while the sword slays its hundreds, disease, springing from the neglect of hygiene, and therefore preventible, consumes its thousands. The latest wars in Europe are as pregnant with this teaching as those of a remoter date, and the fratricidal contest now raging in America but too well confirms it. Our able contemporary, the *American Medical Times*, with the same fearlessness it has throughout exhibited, lays bare some of the causes which have reduced the once "Grand Army of the Potomac" to a mere shadow of itself, one hundred regiments having been invalided, and 50,000 men sent to the rear within three months, although the army was within twelve hours' sail of the capital, where unlimited stores were available. In the first place, the Medical Inspectors appointed by the authorities have been often either grossly incompetent to their duties, or have been open to the reception of bribes, the consequence being, that an immense number of men have been admitted into the ranks who are incapacitated by age or by various forms of disease. The army has been scarcely ever encamped on healthy spots, although often in the immediate vicinity of excellent localities. Camp police has been so neglected, that disease of a severe type has resulted from a shameful neglect of cleanliness. Lastly, the food has been bad and defective, although large sums have been lavished in securing adequate supplies, and the villainy of contractors has been such, that the very name of contractor has become a hateful sound in the camps. Even when obtained, the food has been rendered unpalatable and indigestible from the mode in which its cookery has been performed. That disease should

be rife in the American army, and that a fleet of ships has been freighted with the sick, is not then surprising; but Medical Councils are likely to be of little avail so long as the Medical body itself is so little considered by the authorities. Here, at least, we should have expected a departure from European precedent, and that all men in America would have been measured by their deeds alone. Still, although during the bloody fights before Richmond many Surgeons persisted in ministering to the wounded amidst the hottest fire, and others became voluntary prisoners in order to attend upon them, no recognition of such conduct, however heroic, has taken place at head-quarters, while promotions have been literally showered upon combatants who manifested bravery.

THE FIRST INSTALMENT OF CONFEDERATE MILITARY SURGERY.

We have received our first parcel from the Confederate States of America, in the shape of a handsome Manual of Military Surgery, by Dr. J. J. Chisolm, printed at Richmond, Virginia. We may characterise it as a capital summary of the duties of the Military Surgeon, and description of the men and things, of the diseases, remedies, operations, diet, and rations, and of the hygienic arrangements of camps, Hospitals, and barracks, with which the Military Surgeon must be conversant. It is written in a clear practical style, and though the author does not give much for his own experience, yet we get a glimpse or two of what has been for some time a mystery to most of us, the interior life of the Confederate States. It speaks with the most entire patriotism, and devotion to this newly organized *patria*, but speaks also with wholesome openness of the faults of his Government and soldiers. We learn that city recruits have some advantages in being less susceptible of *measles*,—a disease which "strikes terror into a camp." An open-air life counteracts many of the ill effects of exposure and hardship.

"This was well shown among the troops protecting the batteries in the neighbourhood of Charleston Harbour, prior to the taking of Fort Sumter. When the call to arms was made, the militia—composed, in a large measure, of clerks, merchants, and professional men, most of whom were much more familiar with the duties of the desk than manual labour—with one common impulse rushed to meet the enemy. Many of them of delicate frames and frail constitutions exposed themselves upon sandy islands, directly upon the sea-beach, with little or no protection. They were badly housed, irregularly fed, and miserably watered. Their daily duties were, with pick and shovel, to throw up redoubts, establish batteries, and mount heavy ordnance during the day; whilst their nights, when not spent in anxiously watching an expected invasion, or performing tedious guard duty during a spell of continuous stormy weather, were forgotten in sweet oblivion upon the wet sand, at times under the shelter of a tent. Notwithstanding, the sanitary condition of the troops was excellent; and many, of delicate frame, returned to their houses, at the expiration of two months, sturdy, robust men, with an addition in some cases of twenty-five pounds weight. All, without exception, were improved by the change of life, under the exhilarating influence of sea air and active exercise."

The Confederate volunteers early in the war were terribly dirty.

"Days passed without the use of water, and filth and vermin soon reigned triumphant. One of the strongest reasons why regulars enjoy better health than volunteers is that the one are daily inspected by their officers, who insist upon their faces being washed, head combed, etc.; whilst the volunteers, with whom the regulations of a strict discipline are not enforced, are allowed to abuse the privilege of following the bent of their own inclinations. It is deplorable to see the condition of our best society in camp. In the Confederate Hospitals it was not rare to administer the first bath to volunteers who had been six months in service without ever having used water beyond their faces."

If soup makes the French soldiers, bacon does the same for the Confederate.

"Bacon is, *par excellence*, the labourer's and soldier's meat in America, and goes further by weight than any other It never produces surfeit, is always acceptable, very easily cooked, and with its rich juice will make the driest farinaceous diet savoury."

Want of discipline destroyed more than the Federal bullets did. The want of *latrines* caused awful sickness this past summer in Virginia.

"Gentlemen who composed our volunteer regiments would not be ordered to these ditches; and as the officers did not insist upon what the men objected to as unnecessarily troublesome, the result was that, with but few exceptions, our regimental camps were accumulations of filth of every description, which could be smelt at a distance whilst approaching them. It was not surprising that disease and death followed in the wake of such indifference to all laws of decency and hygiene."

"For months," we learn, "the roads in the vicinity of Manassas, where the army of the Potomac was stationed, were nearly impassable, and transportation was so exceedingly difficult, that the army suffered severely for want of food. Had the troops been ordered to work the roads instead of loitering for months in camp, the service would have been materially advanced."

Altogether we like Dr. Chisolm for his candour on these points, for the manly earnestness of his tone, and for the absence of brag and bombast, and fine writing. If his country achieve her independence, and become one of the family of nations, we hope that its character will have been foreshadowed by that of Dr. Chisolm's book. It is printed by Evans and Cogswell, of Charleston; and well printed too.

THE PHILOSOPHY OF FIRE.

We are accustomed to think of fire in a house as a thing that slowly spreads, and allows time for consideration and escape. The report of the inquest which Dr. Lankester held on Mr. Barrett and two of his children, who died in that lamentable fire in Great Cumberland-street, will show how erroneous this idea is. Mr Barrett walked down stairs and opened the front door, without knowing that the house was on fire; he returned to alarm and save his family, and perished before he could reach the front door a second time. If we want to see how the thing is done on the large scale, we need only watch it on the smaller. Hold a bit of paper or wood over a lamp. It warms, blackens, chars, gives out gases, becomes red hot; then seems to be smouldering quietly; when, all of a sudden, the heat becomes sufficient to unite the gases with the atmospheric oxygen, a faint explosion occurs, and there is *flame*. Fireman Browne, at the inquest, deposed, that "in his opinion gas had nothing to do with the origin of the fire." If he meant the gas which is made by roasting coal in the retorts of the Chartered Company, and which is brought to us in pipes, he was probably right. But wherever there is *flame* there must be *gas* of some sort; and, in this case, as there had been a smell of fire in the house, the gas that caught fire and formed the flame that burst up and filled the whole body of Mr. Barrett's house, in one instant cutting off the escape from every room, and smothering the unfortunate man and his daughter in the hall, was produced, probably, by the slow distillation of some woodwork,—of the pantry-floor,—or of some beam charred by the smouldering soot of a foul chimney. "Smell of fire" translated into scientific English means just this: certain gases, compounds of hydrogen and carbon, given off by wood or other organic matter when roasted and ready to explode into flame, so soon as the heat is enough. The contents of the camphine cans may have added to the explosive material. Every fire may be divided into two stages or *temps*, as the French would say:—1st. A period of roasting, smouldering, evolution of gas, just as explosive as coal gas, and, perhaps, slow red heat of roasted material. 2. The leaping-up of the gas into flame. When this has taken place escape is hopeless. The heat of flame is so great. It blisters and scorches with the least touch, and where it plays steadily it sets on fire in good earnest.

LACERATION OF PERINEUM: ACTION FOR MALAPRAXIS: A SURGEON CAST IN HEAVY DAMAGES.

In the *Times* of August 27 appears the following evidently imperfect report of a trial at Liverpool:—

"Nisi Prius Court.—(Before Mr. Mellish, Q.C.,

"Richardson et uxor *v.* Pollard.

"Mr. Pope appeared for the plaintiffs; Mr. Overend, Q.C., and Mr. Gully for the defendant. This was an action brought by the plaintiffs to recover damages from the defendant, who is a Surgeon at Chorley, for unskilful and improper Medical treatment of Mrs. Richardson, the female plaintiff. The husband was a booking clerk of the Lancashire and Yorkshire Railway at Blackburn. The wife carried on the business of a milliner in the same town. On the 9th of April, 1861, defendant was called in to attend Mrs. Richardson in her first confinement, she then being thirty-one years of age. In attempting to assist the delivery he employed manual force, and it was in doing this that the alleged want of skill had been manifested. The result of the violence used was shocking in the extreme. The perineum and the adjacent muscles were ruptured, and a wound caused which extended to and through the rectum. The child was born half an hour afterwards. The consequences of the wound were dreadful, and the poor woman suffered the most excruciating pain. The defendant said she would soon get better, and it was not until the end of the twelfth week, when she could no longer bear her agony, that he examined her. Mr. Morley, Surgeon, was called in, and found that she was suffering from ulceration and an abscess, and that if proper means were not at once taken Mrs. Richardson would be all her life subject to pain and unnatural inconvenience. A sister of the female plaintiff and several other female witnesses testified to the ulceration and the violence which was used. Three Surgeons were called to speak to the proper mode of treatment under the circumstances. They deprecated the use of manual force in the way described. For the defence, Mr. Overend called Mr. Pollard. He stated that he had been in practice at Chorley forty years, and positively denied the use of the violence ascribed to him. He was not aware after the birth that there had been any rupture of the perineum, nor did the woman inform him of the injury until after he had ceased to visit her for three weeks, and he was then called in to attend her for a gathered breast, when she told him of the unnatural state she had been in from the first. He said that the female plaintiff and the other female witnesses had been guilty of falsehood. Dr. E. G. Craik, M.D. of the University of Edinburgh, and Licentiate in Midwifery of the Royal College of Surgeons, and Dr. W. Pilkington, a Physician residing at Chorley, testified that no want of skill was manifested by an Accoucheur in not being aware of such a rupture, the former gentleman saying, however, that the symptoms and inconvenience experienced by Mrs. Richardson denoted that the passages had been torn into one throughout. Mr. Overend having summed up his evidence, and Mr. Pope replied, his Lordship summed up the case to the jury, telling them that a professional man like a Surgeon was bound to bring to the performance of his duties a reasonable amount of care and skill; at the same time cautioning them against a verdict involving such serious consequences to the defendant, without the fact of his having committed gross negligence being brought home to their minds beyond all reasonable doubt. The jury found a verdict for the plaintiff—Damages, £120."

The only fact which is established in this case is a laceration of the perineum, extending into the rectum. As for the "manual force" used half an hour before delivery, it is denied, and we do not understand it. But taking the case as reported, there are one or two comments which deserve to be made. Some weeks ago the body of a woman was exhumed, who had died soon after her confinement, in which she had been attended by highly competent London Physicians. It was noted incidentally that the perineum had been badly ruptured. It is unquestionable that this accident happens rather frequently to women who are delivered suddenly and with unusual speed, before Professional assistance can be got. It happens sometimes from some slight and venial want of precaution on the part of the weary Practitioner, who has been watching for hours the slow progress in a case of rigidity. It may be caused, as a pure misadventure, during the use of instruments. The means of preventing it are so little agreed upon, that an eminent Physician-Accoucheur accuses the ordinary mode of "supporting the perineum" as the very means of producing its laceration. The rent in the case before us was unusually extensive. Still it seems hard that a man should be mulcted for an accident which may be shown to be occasional when Medical aid is at hand, and usual when it is not. But then the Surgeon was not aware of the injury. In this, be it observed, he was the victim of the practice authorised by the "old British Midwifery" school. Gentlemen of this school, who look upon the "speculum" with horror, also boast of never seeing the orifice from which the child issues, and of conducting all their operations snugly under the bedclothes. How, then, should they know whether the perineum be ruptured or not? The practice is a bad one; but it is or has been usual, and the Practitioner ought not to be blamed. We would most strongly advise our younger readers, always before leaving a patient, to make sure that the womb is in its place, contracted; not filled with clots nor with a second fœtus, nor yet inverted, and that the vulva is entire, or if lacerated, to what degree. Moreover, the occurrence of suppurative discharge, profuse and offensive, from the genital passage after labour should be treated by astringent and deodorising lotions.

THE EXISTING EPIZOOTIC.

The outbreak of ovine small-pox, to which we lately directed attention, is no longer confined to the Allington flock, but is fast spreading throughout the counties of Wilts, Hants, and Dorset. Its extension from the original focus cannot at present be referred to any known laws of contagion. The first flock attacked after the Allington was one of four hundred sheep belonging to Mr. Harding, of Etchilhampton, penned in a field at least a mile and a-half from Allington, and divided from it by a canal and by intermediate farms. The mode in which the disease has been conveyed is at present inexplicable. It seems to have passed over several flocks in the immediate vicinity of Mr. Parry's (the Allington) and to have attacked one which was believed to be entirely secluded from any possibility of morbid influence. Inoculation has been practised with the best result as regards a diminution of mortality. The *Times* reports that:—

"Nearly three weeks have now elapsed since Mr. Parry's flock were inoculated, and it is worthy of remark that out of 446 ewes in which the disease was thus artificially, as it were, produced, he has lost only four, while of those which took the disease naturally, the losses have already been 60 per cent., and there are numbers of other sheep of the recovery of which there is little hope—indeed, the total loss of those who have taken the disease in a natural way, Mr. Parry estimates, will not be much short of 65 per cent. Putting this, therefore, in contrast with the results after inoculation, which, under the most unfavourable circumstances, are not expected to average a mortality of more than 5 per cent., the desirableness of inoculation immediately upon the appearance of the disease in a flock, is placed beyond doubt.

"The deaths in the Allington flock up to the present time cannot be reckoned at less than 400; but as the lambs were not inoculated for at least a week after the older portion of the flock, it is impossible to say what the ultimate result will be. One thing, however, is already apparent—that the lambs which are sickening are by no means so seriously affected as those which took the disease naturally, and there seems every reason to hope that the rate of mortality will be light even among this portion of the flock, although young sheep are, as a rule, always more susceptible to the influence of the disease than those of older growth."

The necessity of adopting measures for putting a stop to the spreading evil is obvious. Hundreds of thousands of sheep will in the course of a few days be driven along the neighbouring roads to the great fairs of Wilton, Weyhill, and

Appleshaw. Unfortunately it would seem that there is no law by which the local authorities can draw a cordon round the infected district, and stop all ingress and egress. A correspondent of the same paper writes:—

"I, who have seen it raging in less favoured climes, and can remember the ruin it worked, and the rapidity with which it extended itself, am surprised at the apathy shown here, where so large a property is at stake. In Australia, had such a disease broken out, the flock would at once have been destroyed and burnt; and, in all human probability, the plague would have been stayed. I cannot see why such a course should not be adopted here, the county paying the value, which will be saved a hundredfold if the neighbouring flockmasters escape."

REVIEWS.

Infanticide: its Law, Prevalence, Prevention, and History. By William Burke Ryan, M.D. Lond., F.R.C.S. Eng. London: Churchill, 1862.

Do we really "rival the Chinese in callousness to infant life?" Is infanticide a recognised institution among the English people? Has Earl Russell expressed the sentiments of British Christianity or of Druidical barbarism when he asserted that "he did not consider the people of this country were likely to look upon child murder as they look upon ordinary cases of murder?" for thus he is reported to have spoken by Dr. Ryan. Are we to understand now, and record for the instruction of future generations, that *infanticide is permitted and encouraged by the laws of England?* Surely the time has arrived when we must no longer evade these inquiries; and if we meet them by the investigation of facts,—if we simply abstain from closing our ears and our eyes to what is notorious,—to the statistics of the national mortality,—to the dicta of our Judges and the findings of our juries, we see no path by which to avoid the conclusion that wherever in the wide world English law is administered, "killing is no murder" so long as the victim is a newly-born infant. Practically, from this conclusion there is no escape. What makes matters worse is, that infanticide is proclaimed to be murder both by moralists and legislators. Judges and juries admit the abstraction, and the law sanctions its announcement. How is it, then, that the theory of the law and the practical result of its administration are thus at variance?

All these questions are discussed by Dr. Ryan in the volume before us, and the array of facts which he marshals forth in treating of them ought to suffice to rouse the most indifferent even of those amongst us, who, indulging a sentimental and meditative sort of selfish Christianity, are content with things as they are, so long as their own homes and their own placidity are undisturbed by occurrences and unshocked by tales of horror. Men and women of England, listen to what Dr. Ryan has to tell you, and unless you desire your children and children's children for ever to cry "Shame upon you!" "agitate, agitate, agitate,"—agitate and work until this foul blot upon the escutcheon of your country is wiped away.

We will not weaken Dr. Ryan's arguments by partial quotations. We say, purchase his book, and read it. We will simply reprint, in conclusion, the practical amendments in the criminal law which his consideration of the subject leads him to urge.

"I would, in conclusion ask,—1st. That in cases of infanticide, proof that the child has been "*wholly born*" be no longer required, but that in all cases it be sufficient to prove that the child *met its death by violence*. 2nd. That, as in the French law, the jury may find upon the capital charge, "with extenuating circumstances;" and that punishment *according to the nature of the circumstances attending the crime*, be justly meted out. 3rd. That in order to enable the mother of an illegitimate child to free herself for future exertions, the putative father be obliged, according to his circumstances, to pay such a sum as will enable the woman to put the child out to nurse; and that the sum vary, from the present amount as a minimum to 7s. 6d. per week, according as circumstances of aggravation, which the law may not otherwise be able to meet on behalf of the woman, may appear."—P. 44.

On the Mechanical Appliances necessary for the Treatment of Deformities. By Henry Heather Bigg, Assoc. Inst. C.E., Anatomical Mechanist to the Queen, etc. Part II.—The Spine and Upper Extremities. London: Churchill. 1862. Pp. 303.

The first part of this work was devoted to the deformities of the lower limb. In the second, Mr. Bigg discusses the various mechanical appliances which have been devised for the rectification of those in the pelvis, spine, and upper extremity. By far the greatest part of the book is occupied by a consideration of spinal deformities, in the management of which the public have, perhaps, suffered more in health and pocket from pretentious quacks than in any other department of Medical or Surgical art. Mr. Bigg affirms that by mechanical "means alone can the curves be elongated by pressure upon their arcs and expansion of their extremities; the muscles brought into use and power by gymnastic exercises; the ligaments expanded by thoracic support, and the intervertebral cartilages enabled to gather fresh substance by a removal of that superincumbent weight which prevented physiological deposition of new material."—P. 39.

There is, however, about the book a tone which we cannot refrain from criticising. It is not easy precisely to define what this is,—it is not exactly egotistical or self-commendatory,—perhaps we may more correctly term it self-satisfied. It is decidedly unpleasant to the Medical reader, but it does not detract from the practical value of the work.

On Long, Short, and Weak Sight, and their Treatment by the Scientific Use of Spectacles. By J. Soelberg Wells, M.R.C.S. Eng., and M.D. Edin.; Ophthalmic Surgeon and Lecturer on Ophthalmic Surgery to the Middlesex Hospital, etc. London: Churchill. 1862. Pp. 112.

The substance of this work appeared last year in the *Medical Times and Gazette*, in a series of papers entitled, "Practical Hints on the Accommodation of the Eye; its Anomalies and their Treatment." To these papers the author has made considerable additions, which thoroughly warrant him in presenting his remarks to the Profession in a separate form. We heartily commend the book as containing nothing superfluous, and as treating scientifically upon diseases which every Medical Practitioner should be prepared to combat.

A Handbook of Volumetrical Analysis. By Robert H. Scott, M.A., T.C.D., Secretary of the Geological Society of Dublin, and Lecturer in Mineralogy to the Royal Dublin Society. London: Longman and Co. 1862.

The increasing favour with which quantitative analysis by the volumetric method is being regarded by chemists, is dependent both upon its accuracy and the readiness with which the method is applied. The latter commends it especially to the use of the members of our Profession whenever circumstances demand that they should undertake chemical analyses themselves. Such of our readers as desire to become acquainted with the first principles of this method, and its most generally accepted applications, we advise to possess themselves of this little volume. It is a good introduction to the more extended works of Mohr and Poggiale.

Pathological and Practical Observations on Diseases of the Abdomen, comprising those of the Stomach and other Parts of the Alimentary Canal, Œsophagus, Cæcum, Intestines, and Peritoneum. By S. O. Habershon, M.D. (Lond.), Senior Assistant-Physician to Guy's Hospital, etc. Second Edition. London: Churchill. 1862.

In this new edition we find a valuable work considerably extended. It now forms a thick volume. A chapter on Peritonitis has been added, and the number of illustrative cases throughout increased. In many other respects the book is improved, much of it having very properly been re-written. It may now be considered as established as a standard work on the maladies of which it treats.

On Headache and its Varieties. By J. P. Murphy, M.D. Pp. 57. London: Churchill. 1859.

"Had these observations," writes the author, "been intended for the mere student in Medicine, they would have been more precise and more diffuse, but as they are meant to aid the

Practitioner who requires only a suggestion, they have been limited to sketches and hints, to be acted upon, if of value."

We think Dr. J. P. Murphy might have employed his time to better purpose, for we can assure him that "the Practitioner" is not so ignorant as to require the aid offered him in this pamphlet.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

I now proceed to notice some of the most ingenious of the orthopædic instruments exhibited by Mr. Heather Bigg. The contents of his case are arranged in a classified manner, and the various appliances are made to a given scale of reduction, and thus the visitor is enabled at once to estimate and thoroughly examine them. On this account, as well as in consequence of the skill and excellence of manufacture displayed by Mr. Bigg, his case is one of the most remarkable in the Exhibition, and I much regret that a plan of more uniform arrangement was not adopted throughout the whole class. The individuality of each exhibitor would have been in no way diminished, while the effect and importance of the whole display would have been much increased.

In proceeding to a more detailed examination of Mr. Bigg's instruments, I will first allude to that intended for the treatment of wry-neck. The novelty of this invention consists in the position held by the two plates, and the movements of which they are respectively capable. It is composed (Fig. 1) of a padded pelvic band, having a vertebral stem with horizontal arm-pieces. To the upper extremity of the vertebral stem a neck-lever is fixed in such a manner as to be attached or removed at will. This neck-lever is peculiarly formed, being so curved as to pass round the skull and take its bearing against the temporal bone on that side towards which the head is deflected, while a horizontal lever rests against the lower maxilla on the opposite side. The temporal lever has

Fig. 1.

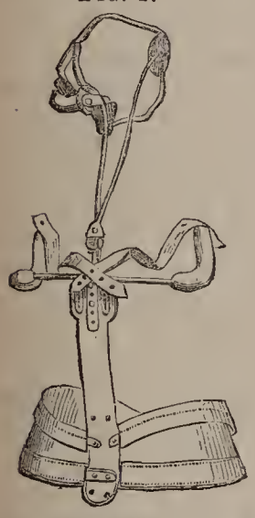
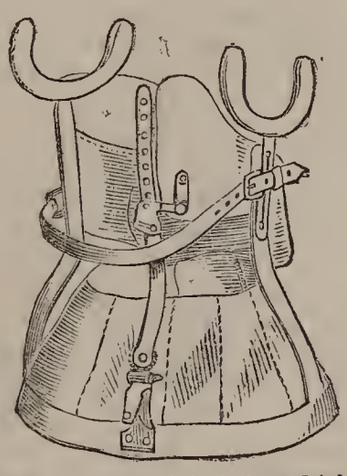


Fig. 2.



a vertical movement (by means of a ratchet joint), by which the head is gently pressed from right to left, and the chin lever has a horizontal movement, by which the head is made to rotate on its vertebral axis. The conjoined action of these two tends to replace the head in its normal position, and so stretch the contracted sterno-mastoid muscle. This instrument contrasts favourably with one exhibited by Lebelleguie, in which the head is received into the concavity of numerous steel plates, in which I should think it could easily rotate, and thus very much diminish the good effect of the contrivance.

The form of instrument represented in Fig. 2 is intended to overcome rotation of the ribs on the bodies of the vertebræ, which is a condition universally found to accompany severe lateral curvature of the spine. It possesses a vertebral stem and costal plate, so arranged as to have four planes of mechanical movement. One at the lower part of the back produces anterior pressure, a second tends to diminish the dorsal curve, a third causes horizontal rotatory motion, and the fourth produces vertical adjustment. This is a good instrument in severe cases of deformity.

Fig. 3 is an instrument invented for cases of slight paralysis of the lower extremities, the action of which depends on the elasticity of strong india-rubber bands, which tend to restore the proper equilibrium between the flexors and extensors, which has been interfered with by disease. There is also a spinal support attached to it, which materially adds to the power conferred on the lower limb by the elastic bands before alluded to.

An instrument invented for the treatment of severe cases of

Fig. 3.

Fig. 4.

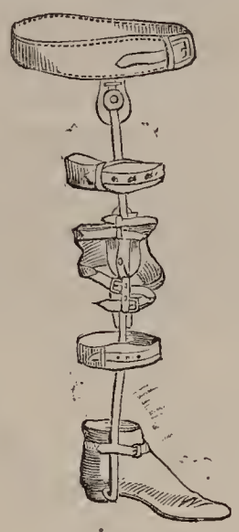
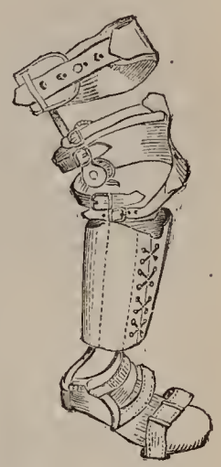


Fig. 5.



knock-knee is shown in Fig. 4, and its novelty consists in the fact that when force is brought to bear on the joint by the ratchet centre, it not only overcomes the lateral deflection, but also, by one and the same movement, it exercises traction against the anterior flexure which exists in all severe adult cases. It is an instance of an instrument in which one movement produces two distinct effects, and is, without doubt, eminently useful in the class of cases for which it is intended.

Fig. 5 is an illustration of an exceedingly ingenious instrument, devised for the treatment of equino-varus. The retraction of the tendo-Achillis, the adduction of the metatarsus, and the transverse rotation of the scaphoid bone on the astragalus, are three morbid states which require for their successful treatment an instrument which is capable of producing three different movements; this is done by the instrument in question, which produces extension, abduction, and rotation simultaneously from a single centre. This piece of mechanism is extremely ingenious, and, though simple, is without doubt very efficient.

The adjoining figure (Fig. 6) is an instrument intended for the treatment of contracted wrist, which possesses two ratchet centres agreeing in their mechanical action with the flexion and adduction of the hand that are so frequently found in conjunction with congenital club-foot.

Fig. 6.

In the next instrument (Fig. 7), which has been contrived for severe adult cases of talipes, pressure is made on the fibular and metatarso-phalangeal surfaces, and not on the cuboid bone. In this respect the instrument is remarkable, and differs from those ordinarily in use. It has a ratchet axis beneath the sole of the foot for overcoming contraction of the plantar fascia, two others opposite the ankle for extending the tendo-Achillis and tibiales, and a horizontal screw, furnished with an air-pad, which presses against the inner margin of the contracted foot, and gradually stretches it. This instrument is admirably calculated to counteract the morbid conditions present in severe cases of equino-varus.

Fig. 7.

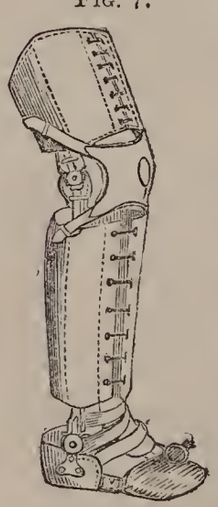


Fig. 8 represents an apparatus contrived for the treatment of bunion, which, while it permits the patient to walk and move the foot without difficulty, exercises a

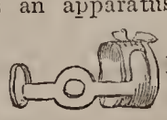


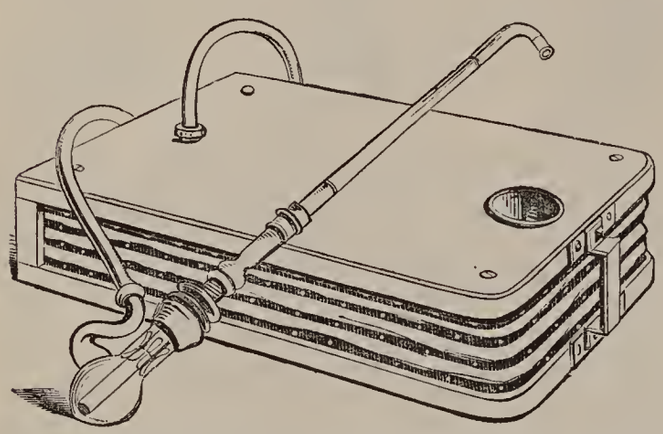
Fig. 8.

constant traction on the great toe, and tends to bring about its proper relation with the metatarsus.

The instruments exhibited by Mr. Bigg to which I have alluded, constitute but a small number of those contained in his case. They are all alike remarkable for ingenuity of invention and great perfection of manufacture; and, as I have before said, their systematic arrangement and reduction to the same scale render Mr. Bigg's contribution one of the most remarkable in the whole class. I may here express a hope that the contrast between the arrangement and general appearance of Class 17 in the English and French departments will have convinced the makers of this country of the advisability, or rather necessity, of adopting a general plan of exhibition on any future occasion.

I shall conclude my notice of this week by calling attention to Mr. Tompson's patent hydro-pneumatic inhaler, devised by that gentleman for the local treatment of affections of the larynx and of the mucous membrane of the air-passages generally. By means of it, certain medicated liquids can be employed, for which the French instruments are not calculated, such as a solution of nitrate of silver; for the vapour is conveyed directly to the affected part by means of a tube, as will be seen presently, and the skin of the face and neck is not at all exposed to its influence.

Fig. 9.



The invention (Fig. 9) consists of four parts, viz., bellows, flask, adjusting apparatus and nozzle, with their several appendages. The bellows contain nothing particular except internal springs, by means of which their upper surface becomes raised, and the bellows are inflated. The flask is egg-shaped, and has two necks; one for ingress, the other for egress. The former is curved, and is connected by means of a long elastic tube with the bellows, while the latter rises perpendicularly from the body. A glass cylinder, traversed by about sixteen capillary tubes, ascends from the bottom of the flask to the upper portion of the perpendicular neck, where it is retained in position by a silver spring. The adjusting apparatus is connected with the neck of the flask, and has a thread turned upon its outer surface to admit of the tube being more or less approximated to the top of the glass cylinder. The nozzle has its remote extremity curved at a right angle, and is there furnished with a screw-cap for the enclosure of a fine plate of fine silver-wire gauze. The instrument is charged by taking off the nozzle and pouring into the flask half a drachm to a drachm of the required liquid, which usually consists of a solution of nitrate of silver (two scruples to the ounce), and the patient may take from one to six inhalations according to circumstances.

Having described the construction of Mr. Tompson's invention, the principle of its action may be thus explained:—The tongue of the patient must be either depressed or drawn forward by the operator, the nozzle introduced as far as the fauces, or if necessary into the pharynx, and the bellows pressed by the foot. In proportion to the difference of size between the ingress and egress openings of the flask, will be the rapidity with which the liquid is forced through the capillary tubes; after it has passed these, it is conveyed through the tube to the gauze disc at its extremity, whence it is dispersed upon the diseased surfaces in a minutely divided and misty spray, which passes through the opening of the glottis during inspiration, without (to use the inventor's words) "causing the slightest inconvenience to the patient." I should add, that the gauze disc may be readily cleansed by holding it in the flame of a spirit-lamp for a short time.

I have had an opportunity of observing the minute subdivision which this instrument is capable of producing in any liquid which is subjected to its influence, and I consider it to be of real utility in cases in which it is considered advisable to apply nitrate of silver to the upper part of the air passages. Mr. Tompson's inhaler possesses an especial advantage over those exhibited in the French department, viz.,—that the finely divided solution of the caustic can be applied in any direction chosen by the operator, in consequence of the length and curve of its tube.

47, Hans-place, S.W.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

M. NELATON'S SUCCESSFUL CASE OF OVARIOTOMY.

Reported by Dr. HEURLE.

M. Nelaton having undertaken to prove to his incredulous compatriots that ovariotomy, although originating and long since proved successful in England, but vehemently opposed in France, is really entitled to enter the ranks of permissible operations, it becomes a matter of interest to record the progress of his efforts. His first case, as we have recorded, after appearing to have been successful proved fatal by reason of the occurrence of the rare complication of tetanus. The present one to all appearances is destined to prove successful. It occurred in private practice, and the operation was performed at a quiet spot outside Paris. The lady, aged 41, dated the origin of the excessive enlargement of the abdomen as commencing seven years before. On June 16 of the present year, forty litres (about seventy pints) of fluid were removed; but the relief was so temporary that the paracentesis had to be repeated thirteen times between that date and July 4. After the ninth tapping Dr. Heurle was consulted, and he proposed that ovariotomy should at once be resorted to, the patient, a woman of strong mind, and tired of her suffering, cheerfully consenting. The other Surgeons consulted, however, advised procrastination, and it was not until after the last tapping that M. Nélaton was called in. He recommended the operation, and performed it himself on July 9. When the tumour was exposed, on account of its enormous size, two of the cysts which composed it were first emptied of their contents. The very short pedicle having been surrounded with thick packthread, and the clamp, guarded with flannel, applied, the division was made, and the mass removed. Every anfractuosity of the cavity of the abdomen was most carefully absterged, and the edges of the wound having been exactly adapted were secured by fourteen points of metallic suture, the parts being then covered over with a layer of wadding and flannel. Chloroform was administered at the commencement of the operation, but had to be discontinued, the patient being seized with syncope, although little blood was lost. On July 13 the clamp was removed, and the infundibulum filled with charpie, and on the 16th the patient got up. The report is brought down to the fortieth day, at which time the patient was quite well, with the exception of there still being a little fluid in the cavity of the peritoneum—a long cicatrix, with a slight depression at the bottom, alone remaining to denote the performance of the operation. No opium was administered, and the diet was moderately supporting. The tumour when sent to M. Houel for examination had been in great part emptied of its contents, but still equalled two adult heads in size, and weighed 1½ kilogrammes (about 3lb. troy). Its walls were in some parts of a fibro-cartilaginous hardness, and in others very thin, and on cutting into it it was found composed of a vast number of cysts, varying from an orange to a nut in size, which were very easily ruptured.—*Gazette des Hôpitaux*, No. 97.

ON QUININE AS A PROPHYLACTIC IN EXPOSURE TO MIASMATA.

By Dr. ROGERS.

Dr. Rogers, Surgeon to the Panama Railway, and therefore furnished with abundant opportunities for investigating the phenomena and treatment of miasmatic poisoning, expresses a very high opinion of the prophylactic influence of quinine. He thinks that a full dose should be administered

to men before entering localities where miasmata are known to prevail, and should be repeated every eight or twelve hours while they remain there, removal from the locality during twelve hours, and especially in the night, being, however, a full equivalent to a dose of quinine, and the preferable prophylactic of the two. Such intermissions in exposure as preventives and as maintaining longer the susceptibility to the action of the quinine should be resorted to whenever it is possible; for when the exposure has been continuous, protection cannot be obtained from quinine for a longer period than two months, and as a general rule, one month. If it be then discontinued, by the time the infection can ensue, the requisite susceptibility to the action of the medicine will have become restored. By the observance of these rules, and avoiding the causes of other diseases, most men of even ordinary good constitutions can be kept in efficient health in miasmatic localities for years.—*American Med. Times*, August. P. 81.

EXCERPTA MINORA.

A Remedy for Maggots in Wounds.—This disgusting complication of wounds, to which the American soldiers are just now, on account of the heat of the weather, much liable to, may, according to a correspondent of the *American Medical Times* (August 9), be effectually relieved by the use of an ointment made by macerating the shoots and tender leaves of the common elder in lard. If the statement be correct, probably the more elegant preparation, the *unguentum sambuci*, would answer the same purpose.

Oakum as a Substitute for Lint.—Dr. Sayres, Surgeon to the large Bellvue Hospital at New York, at present crowded with gunshot wounds, states that he has for many years given a decided preference over picked oakum to lint, and his recent ample experience quite confirms his view. The lint, in fact, especially when composed of cotton, is rather an obturating than an absorbing agent, being wetted by the discharges only at the point of contact, these never traversing its substance, their passage being obstructed rather than favoured. Picked oakum, on the contrary, becomes soon saturated with the pus, the surface of the wound being clean and dry. It drains off the pus like a syphon, rendering it necessary to place some india-rubber or oiled muslin under the wound. When there is much inflammation, if the oakum be wetted with cold water, and the air excluded by wrapping the muslin round the part, a neat and comfortable poultice is secured. When a ball has traversed the parts through and through, and has left an irregular track, a few fibres of oakum passed through by means of an eyed probe, keeps the wound fresh and clean. The insignificant price of oakum is another strong recommendation.—*American Medical Times*, Vol. v. No. 6.

Perchloride of Iron in Herpes Zoster.—M. Baudon recommends this as a very useful application, using the liquid perchloride alone, or when a very mild action is required, combined with a third of glycerine, and when the pain is great, with laudanum. If employed three times a-day it will arrest a commencing eruption; and if the vesicles have already formed, the serum should be evacuated from the largest and their interior painted by means of a pencil imbibed with the perchloride—the addition of laudanum mitigating the pain of the application.—*Bull. de Thérap.*, July. P. 76.

Administration of Ergot of Rye in Draughts.—Dr. H. Montgomery, of Madras, states that he has found the following formula highly useful, viz.:—Powdered ergot ʒj., boiling water ʒij. for two draughts. The ergot should be powdered without drying, and is not to be strained out of the draught. In order to have these draughts always ready, a teaspoonful of spirit or of brandy and ʒss. of ethereal tincture of ergot are to be added. These draughts, if preserved in bottles having *ground-glass stoppers*, will keep for a very long time, and are so portable as to be easily taken about. Dr. Montgomery can answer for their efficacy several months afterwards, when prepared from good fresh ergot.—*Madras Quarterly*, April.

The Alkaline Lactates in Anorexia.—M. Petrequin, in a paper upon the advantages derivable from the use of the lactate of soda and magnesia in functional dyspepsia, states that the following is a very simple and effectual mode of treating the anorexia which complicates certain forms of dyspepsia. The intervals between the repasts are to be made as long as possible, and the meals themselves are to be very light. During these intervals gum Arabic should be kept in the mouth, which as it is dissolved by the saliva descends with this into the stomach, and solicits the secretion of the gastric juice. As the time for the meal arrives, one or two lozenges of lactate of soda and magnesia are substituted for the gum, and these excite more vigorous action on the stomach. In a short time the want of reparation is felt, and the appetite and power of digestion are gradually restored. This kind of artificial hunger has often cured the original affection.—*Gazette Hebdom.*, No. 26.

FOREIGN CORRESPONDENCE.

GERMANY.

Bonn, July 30.

ON PARENCHYMATOUS NEPHRITIS.

At one of the last meetings of the Society of the Lower Rhine, Professor Weber, of this University, read a Paper on a form of nephritis which is chiefly observed in male persons suffering from hypertrophy of the prostate. M. Rayer has described this disease as "*néphrite simple*," and put it together with traumatic inflammation of the kidneys, from which it is, however, essentially different. If the prostate is hypertrophied, the affection is never fully developed, as the cause of the inflammation acts upon both kidneys simultaneously, and the impeded excretion of urine soon leads to uræmic intoxication, while if only one urether is closed by stricture, tumours, or otherwise, the other kidney may continue to act freely, and thus life be prolonged. In such instances the whole substance of the kidney may be destroyed by suppuration, and a tumour is formed which may be felt externally, and in which sometimes even fluctuation is perceived. In its less severe form the disease may end in recovery, as we not unfrequently observe in patients suffering from hypertrophy of the prostate that the urine becomes mixed with blood and pus, violent renal pain along the uretheres towards the bladder, and symptoms of uræmic intoxication; but in spite of all this the patients after a time recover. A very severe case of this kind was lately observed by Professor Weber. The patient was an old Prussian General, who had for the last eight years suffered from urinary difficulties, but thinking the pain he experienced to be "the colics," and being, in spite of his age, very shy, he never mentioned to his Medical attendant that he suffered from the bladder, and it was only when the distress had become intolerable that he allowed an examination to be made. It was then found that this organ was filled to bursting, and had risen above the umbilicus. In spite of repeated endeavours made by several Surgeons, the catheter could not be introduced; and Professor Weber was then called in for tapping the bladder. He succeeded, however, in passing the catheter at last, after which about six pints of a reddish and curdy urine were emptied. The catheter was left in the bladder, as the hypertrophied prostate offered great impediments to its introduction, and the patient was very sensitive. During the six following hours, about twelve quarts more of urine were emptied, from which it became evident that there must be a very considerable dilatation of the uretheres and the pelvis renalis. Although the patient felt much relieved, the fever continued, and the urine remained mixed with blood and pus. Pressure on the kidneys was very painful. After a time tympanitis supervened, and although the urine was now regularly drawn off by the catheter, the symptoms of uræmic intoxication became worse, and death ensued on the ninth day. The post-mortem examination showed the middle lobe of the prostate to be considerably hypertrophied; there was no injury to the urethra or the bladder, although it had been feared that gangrene of the latter had in the last few days set in. This organ was much enlarged and quite empty; its mucous membrane hyperæmic and villous, the muscularis much hypertrophied. The uretheres were so much dilated that the little finger could be introduced into them. The pelvis renalis was similar to a large funnel, and its mucous membrane was hyperæmic and villous. The kidneys were studded with small abscesses, which had the appearance of yellow nodes of the size of peas. The cortical substance was not well set off from the medullary substance, both being red and hyperæmic, full of small abscesses and recent and old extravasations of blood. The pus contained in the larger abscesses was tough and thick. On examining the canaliculi with the microscope, they appeared much dilated, and filled with pus-corpuscles. There was an

excessive growth of the nuclei of the epithelial cells, and the whole of each cell was covered with cilia. In the neighbourhood of the canaliculi and the Malpighian bodies, there was also considerable development of the connective cells which accompany the blood-vessels; and yellow and black pigment, and recent extravasations of blood in the interstitial tissue were everywhere seen.

Post-mortem appearances like those just mentioned are found in all cases where the cause of the retention of the urine is seated close to the neck of the bladder, and both kidneys are similarly affected. Death ensues so rapidly under such circumstances that a further development of the morbid process is prevented. If on the contrary the cause of the retention is such that only one kidney ceases to act, the degeneration progresses much further. The urether is then just as much dilated as the pelvis renalis, and the mucous membrane is covered with granulations, from the surface of which copious pus is secreted. The urether is sometimes similar to a varicose vein. Copious suppuration is established in the tissue of the kidney; the organ is much enlarged and becomes, as it were, a pseudo-cyst, consisting of irregular cavities and chambers which contain pus, and in which the remains of the papillæ are seen to project like septa. The whole of the connective tissue of the kidney is destroyed by suppuration, and the substance of the kidney reduced to a very thin stratum, which firmly adheres to the thickened capsule, and has a cheesy and sometimes gelatinous appearance. The pelvis renalis, or rather the irregular creeky cavity composed of many separate chambers which has taken its place, is full of pus, and that small quantity of urine which, under such circumstances, may yet be secreted; that is, you find in the interior of the kidney and the urether a turbid liquid mixed with thick curds and pus.

This parenchymatous nephritis is therefore by the suppuration attending it quite different from nephritis in morbus Brightii and fatty and amyloid degeneration. Fatty degeneration in morbus Brightii is also attended with excessive growth of connective tissue, but not with suppuration, and therefore causes only partial destruction of the substance of the kidney.

GENERAL CORRESPONDENCE.

CONGENITAL ABSENCE OF THE TRACHEA.

Letter from Mr. W. T. Colby.

[To the Editor of the Medical Times and Gazette.]

Sir,—If you consider the following worthy of a corner in your Journal, I shall feel obliged by your inserting it:—

On Saturday last, my father was called upon to attend a young woman in her third confinement. The child (a remarkably fine girl), when born, made such unusual but unsuccessful efforts at respiration, that he felt certain that some mechanical obstacle to the entrance of air into the lungs must exist; in fact, he was so positive that such must be the case, that he asked permission for a post-mortem examination, which was readily granted. Two hours after the birth of the child I made a post-mortem examination, when its ineffectual attempts at respiration were easily accounted for, in the *entire absence of the trachea*. The rima glottidis led into a mere *cul de sac*, not half an inch in extent. Nothing else abnormal was apparent. I am, &c.

William Taylor Colby, M.R.C.S.L., L.S.A.

Wentworth-villa, Malton, Yorkshire, August 25.

MEDICO-LEGAL.—THE VINDICATION OF PROFESSIONAL RIGHTS BY THE ORMSKIRK PRACTITIONERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—We, the Members of the Medical Profession in Ormskirk, having read with entire approval your admirable Paper in the *Medical Times and Gazette* of this day, on "Work for the British Medical Association," beg to offer you our best thanks for the handsome manner in which you, in that article, have named the Profession in Ormskirk with regard to the case of Bowen, lately brought by them before the magistrates; and, also, for your call upon the British Medical Association to aid their Ormskirk brethren with pecuniary assistance in checking the assumption of a most impudent pretender.

Our ascertained costs already amount to sixty-five pounds, and the appeal to the Court of Queen's Bench will be a considerable addition to the expense.

We think that it is to be regretted that the College of Surgeons does not itself protect the rights of its members, and that the Society of Apothecaries, in this case, does not vindicate the legality of its licence.

We shall feel grateful if your suggestion should be favourably entertained by the British Medical Association.

We have not brought the case before the public from personal motives only, but from the sense that it is a question of importance both to the public and to the Profession, that membership of the College should not be assumed with impunity.

From the piracy of quacks in other respects there is not sufficient protection.

Such men are incapable of shame, but we feel it incumbent upon ourselves as Professional men to secure our titles from degradation.

Again thanking you for the interest you have shown on our behalf, We remain, Sir,

Your obliged servants,

William Lax.
T. M. Ashton.
Rob. M. Marsden.
C. P. Symonds.
Chas. Palmer.

Ormskirk, August 23.

VERSION IN CONTRACTED BRIM.

Letter from Dr. Figg.

[To the Editor of the Medical Times and Gazette.]

Sir,—In direct contrast to Dr. M'Clintock's experience, permit me to detail two from a series of cases illustrative of the superiority of delivery by version over extraction by the long forceps in cases of incapacity of the pelvic brim.

M. J., aged 26, a healthy subject, with a pelvis small, but not distorted, had, on three previous occasions, endured a tedious and painful application of the long forceps, resulting in the production of a lifeless child.

On March 8, 1856, I was summoned to attend her, and found my friend Dr. Murray by her side. The os was well dilated, the membranes unbroken, the head incarcerated above the brim. We decided on turning, and by united effort produced a large infant, whose respiration, feeble at first, became natural in half an hour; the mother became rapidly convalescent.

On May 12, 1858, she again solicited my services; the circumstances of her case, at the crisis of my examination, were but a repetition of those of the previous instance. I turned under chloroform, and with the assistance of a neighbour's wife, who pulled at the legs while I manipulated the head, a girl was produced which cried vigorously, being, like its predecessor, uninjured in the process.

Mrs. J.'s next accouchement took place in Ayrshire, her attendant, true to his obstetrical creed as a matter of course, applied the long forceps, and, in inevitable consequence, removed a dead infant, which event, however, was surpassed in tragic incident at her next delivery, when her ill-starred progeny was born piecemeal.

To anticipate a recurrence of this disaster, Mrs. J. revisits this locality in the early part of next year, to secure safety by a mode as facile in the hands of a first year's student as in mine.

Perhaps I may with advantage afford a suggestion on Dr. Hewett's reference to difficulty experienced when one foot alone is brought down.

If the fœtus occupy the first or second position (Naegele), I seize the posterior foot, which holding the anterior one in its fold, invariably secures the descent of both.

If the position be the third or fourth, I secure the distal, and not the proximate foot, traction on which inverts the child on a diagonal axis, rather than the longitudinal one of the former case.

In my early attempts on these anterior positions I satisfied myself with the first that met my grasp, only to ensure the complication of the proximate foot, and the head occupying

the pelvis together, while the distal one and fœtal trunk were yet in the perpendicular. Should the distal foot, in the first instance, prove beyond my reach, I avail myself of the proximate one, producing traction on it, not with the view of thereby completing the version, but so as to exercise an influence on the other, and bring it into the vicinity of my hand.

Let the fact of my having turned more children than any man in the Profession lend a little authority to these remarks —a distinction that no one will envy me, remembering the rabid *animus* evinced by the leaders of the London school on the publication of that trait in my practice.

I am, &c.

Bo'ness, August 23. E. G. Figg, M.D.

MEDICAL NEWS.

University of London, 1862.—The following are lists of Candidates who passed the respective Examinations indicated:—

First B.Sc. Examination (Entire).

Pass Examination.

First Division.—Edward Hesketh Birkenhead, Government School of Mines; Dan Isaac Davies, private study; Clement le Neve Foster, Government School of Mines.

Second Division.—Edward Louis Barret, Royal College of Chemistry; Richard Bithell, private study; John Broughton, St. Bartholomew's Hospital; James Dale, private study; Edward Divers, Queen's College, Galway; Edward Maxwell Dixon, private study; Walter Flight, Queenwood College; John Joseph Kelly, private tuition; George Walter Knox, University College; John Spink, private study.

First B.Sc. Examination (Excluding Mathematics).

First Division.—William Lant Carpenter, B.A., private study.

Second Division.—Frederick George Finch, B.A., School of Mines and University College; Wm. Hetherington Harris, B.A., private study.

Examination for Honours.

Mathematics and Mechanical Philosophy.—James Dale, private study.

Chemistry and Natural Philosophy.—William Lant Carpenter, B.A., private study; Clement le Neve Foster, Government School of Mines; Walter Flight, Queenwood College.

Biology.—George Walter Knox, University College.

Bachelor of Medicine—Preliminary Scientific Examination.

Pass Examination.

First Division.—Bryan Holme Allen, University College; Herbert Ray Archer, St. George's Hospital; Frederick William Armitage, Guy's Hospital; Marcus Beck, University of Glasgow; Charles Berrell, King's College; Joseph Birt, Sydenham College, Birmingham; Thomas Bond, King's College; John Cavafy, St. George's Hospital; Carey Pearce Coombs, St. Mary's Hospital; George Eastes, Guy's Hospital; John Tasker Evans, St. Bartholomew's Hospital; Julian Augustus Michael Evans, University College; Frederic Flint, King's College; Charles Augustus Greaves, St. Thomas's Hospital; Thomas Henry Green, University College; Henry Charles Hilliard, Guy's Hospital; Philip Brookes Mason, University College; Marmaduke John Mayou, Guy's Hospital; Frederic Barham Nunneley, University College; Charles William Philpot and Revett Coleridge Powles, King's College; Charles Read, University College; Edwin Roberts, King's College; Charles Smith and James William Smith, Guy's Hospital; William Vicary Snow, University College; Francis Thomas Tayler, B.A., Guy's Hospital; George Christopher Tayler, St. Bartholomew's Hospital; Arthur Taylor, Guy's Hospital; Henry Trimen, King's College Hospital; Ebenezer Fulham Turner and Thomas Pickard Warren, Guy's Hospital; Henry Willey, King's College; John Williams, University College.

Second Division.—John Barrett, Bristol, and Bath United Hospital; Charles Glen Bott, Guy's Hospital; Thomas Churton, Leeds; Henry Clothier and James John Coxeter, University College; Olliver Thomas Duke, Guy's Hospital; William Soltau Eccles and Thomas Fairbank, St. Bartholomew's Hospital; Joseph Foster, R. Manchester; Thomas Robinson Glynn, St. Bartholomew's Hospital; Joseph Groves, King's College; Walter Anstice Harvey, St. Bartholomew's Hospital; James Pearson Irvine, Liverpool; James Jackson, London Hospital; Henry Law Kempthorne, King's College; John Wickham Legg, University College; John Lloyd, Queen's College, Birmingham; William George Vawdrey Lush, St. Bartholomew's Hospital; Edward Mackey, Queen's College, Birmingham; Thomas Murray, St. George's Hospital; Charles Perks, Queen's College, Birmingham; Charles Howard Prosser, Marlborough College; John Prior Purvis, St. Thomas's Hospital; John Henry Salter, King's College; George Henry Savage, Guy's Hospital; Alfred Baird Seaman and George Edward Shuttleworth, King's College; Robert Sidney Stone, St. Bartholomew's Hospital; Edward Francis Willoughby, University College.

Examination for Honours.

Chemistry and Natural Philosophy.—Philip Brookes Mason (Exhibition), Frederic Barham Nunneley, and Bryan Holme Allen, University College; Charles Berrell, King's College; Charles Augustus Greaves, St. Thomas's Hospital.

Biology.—Philip Brookes Mason (Exhibition), University College; Revett Coleridge Powles, King's College; Edward Francis Willoughby, University College.

First M.B. Examination (Entire).

Pass Examination.

First Division.—Alexander Bruce, University College; William Carter, Charing-cross Hospital; Carey Pearce Coombs, St. Mary's Hospital; Gwynne Henry Harries, King's College; John Wale Hicks, St. Thomas's Hospital; James Hinds, Queen's College, Birmingham; Charles Albert Hingston, St. Bartholomew's Hospital; Henry Law Kempthorne, King's College; George King, London Hospital; Daniel John Leech, Royal Manchester; John Morton, St. Thomas's Hospital; John Albert Nunneley, Leeds; John Jones Phillips, Guy's Hospital; Shephard Thomas Taylor, King's College; Richard Thorne Thorne, St. Bartholomew's Hospital; John Sebastian Wesley, Henry Willey, and John Henry Wood, King's College.

Second Division.—William Philipps Bingley, University College; Edward Casey, King's College; Frederick Pooley Edis, Westminster Hospital; Thomas Fairbank, St. Bartholomew's Hospital; James Jackson, London Hospital; Arthur George Mickley, Guy's Hospital; George Oliver, University College.

First M.B. Examination (Physiology only).

Thomas Wemyss Bogg and John Talfourd Jones, University College; George Thomas Mitchell Southam and Rickard Patrick Burke Taaffe, St. Bartholomew's Hospital.

Examination for Honours.

Anatomy.—John Wale Hicks (Exhibition and Gold Medal), St. Thomas's Hospital; Carey Pearce Coombs, St. Mary's Hospital; Charles Albert Hingston, St. Bartholomew's Hospital. [The two last gentlemen being equal.]

Physiology, Histology, and Comparative Anatomy.—John Wale Hicks (Exhibition and Gold Medal), St. Thomas's Hospital; William Carter (Gold Medal), Charing-cross Hospital; Alexander Bruce, University College; Charles Albert Hingston, St. Bartholomew's Hospital; Gwynne Henry Harries, King's College.

Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry.—Alexander Bruce (Exhibition and Gold Medal), University College; John Wale Hicks (Gold Medal), St. Thomas's Hospital; William Carter, Charing-cross Hospital; Carey Pearce Coombs, St. Mary's Hospital; Charles Albert Hingston, St. Bartholomew's Hospital; Henry Law Kempthorne, King's College.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 21, 1862:—

Messrs. Arthur Trehern Norton, St. Mary's Hospital; Frederic Blakesley Mallett, Bolton-le-Moors; William Henry Cocker, Blackpool, Lancashire; Robert Perriman Fouracre, Plymouth, Devon; John Harvey, St. Mary's Hospital; Maurice James O'Connor, Morpeth, Northumberland; John Elleiton, Wakefield, Yorkshire; and Edward Cookson, Notting-hill Dispensary.

The following gentlemen also on the same day passed their First Examination:—

Messrs. John David Frankish, and Thomas Edward Mason, Guy's Hospital.

APPOINTMENTS.

Babington.—Arthur Wellesley Waterloo Babington, M.R.C.S. Eng., L.A.H. Dub., has been appointed Surgeon Superintendent to the *York* convict ship.

Borland.—John Borland, M.D. Univ. Glasg., has been re-elected Parochial Medical Officer, Kilmarnock, Ayrshire.

Brenchley.—Horatio Coare Brenchley, M.R.C.S. Eng., L.S.A. Lond., has been elected one of the Medical Officers of the new Camberwell Provident Dispensary.

Bringloe.—John Bringloe, M.R.C.S. Eng., and L.M. L.S.A. Loud., has been elected one of the Medical Officers of the new Camberwell Provident Dispensary.

Bruce.—William Bruce, M.D. Univ. King's Coll. Aberd., L.R.C.S. Edin., has been elected Secretary for 1862-3 of the Buchan Medical Society.

Cardell.—J. Magor Cardell, F.R.C.S. (exam.), Surgeon to the Salisbury Infirmary, has been appointed Deputy Coroner for the Southern District of Wiltshire.

Evans.—John Tasker Evans, M.D. Univ St. And., M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to Christ's Hospital, Hertford, *vice* Richard David Jones Evans, M.D. Mar. Coll. Univ. Aberd., F.R.C.S. Eng. (Hon.), L.S.A. Lond., deceased.

Eves.—Augustus Eves, M.D. F.R.C.S., Consulting-Surgeon to the Cheltenham General Hospital, has been elected President of the Gloucestershire Medical and Surgical Association.

Glen.—Dr. Glen, Civil Surgeon, Broach, Bombay Presidency, has been appointed one of the Municipal Commissioners for the town of Broach.

Gunther.—Albert Günther, Dep. in Med. and Surg. Stuttgart, Assistant (1st class) Zoological Department, British Museum, has been elected Fellow of the Zoological Society of London.

Hurd.—James Hurd, M.D., has been appointed Certifying Surgeon under the Factory Act for the Frome District, *vice* B. Mallam, resigned.

Jackson.—Andrew Jackson, L.F.P.S. Glasg., has been elected Medical Officer and Public Vaccinator for the High District of the Longtown Union, Cumberland, *vice* William Graham, L.R.C.S. Edin., L.S.A. Lond., whose term of office has expired.

Lalor.—Assistant-Surgeon J. Lalor, A.B., has been appointed Assistant-Surgeon in charge of Sindh Lunatic Asylum, Larkhana, Bombay Presidency.

Lawrence.—Nathaniel Lawrence, M.R.C.S. Eng., has been appointed President for 1862-3 of the Buchan Medical Society.

Macaldin.—James Jasper Macaldin, M.D., L.R.C.S. Edin., F.R.C.S. Irel., L.M. Edin., has been elected Medical Officer and Public Vaccinator for the Fifth District of the Romford Union, Essex, *vice* Mr. William Cooper, resigned.

Maclagan.—Andrew Douglas Maclagan, M.D. Univ. Edin., F.R.C.S. Edin., has been appointed Professor of Medical Jurisprudence in the University of Edinburgh, *vice* Thomas Stewart Traill, M.D. Univ. Edin., F.R.C.P. Edin., deceased.

Maclean.—George Maclean, Acting Assistant-Surgeon R.N., has been appointed to the *Severn* for the *Pantaloon*.

Moore.—Assistant-Surgeon W. J. Moore, M.D., has been appointed Acting Assistant-Surgeon to the European General Hospital, Bombay.

Morton.—W. A. Morton, Esq., has been appointed Certifying Surgeon under the Factory Act for Horwich, Lancashire, *vice* Cawthorne, resigned.

Newman.—William Newman, M.D. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer to Lord Burghley's Hospital, St. Martin's, Stamford Baron, Lincolnshire, *vice* Mark Wilson Jackson, F.R.C.S. Eng., L.S.A. Lond., deceased.

Nichol.—Robert Nichol, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., and L.M. L.S.A. Lond., has been elected one of the Medical Officers of the New Camberwell Provident Dispensary.

Otley.—John Otley, F.R.C.S. Eng., L.S.A. Lond., has been elected one of the Medical Officers of the new Camberwell Provident Dispensary.

Patrick.—Samuel Alexander Patrick, M.R.C.S. Eng., has been appointed District Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, Manchester.

Pridham.—John Williams Pridham, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the 4th and 5th Districts of the Weymouth Union, Dorsetshire, *vice* Adam Stapleton Puckett, L.S.A. Lond., deceased.

Parsons.—John Dungate Featherstonehaugh Parsons, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., has been elected Resident Medical Officer to the Clifton Dispensary, *vice* Robert Watts, M.R.C.S. Eng., L.S.A. Lond., resigned.

Puckle.—George Puckle, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., has been elected one of the Medical Officers of the new Camberwell Provident Dispensary.

Robbs.—William Edward Robbs, M.B. Univ. Lond., M.R.C.P. Lond. (exam.), M.R.C.S. Eng., L.S.A. Lond., has been elected Surgeon to the Stamford, Rutland and General Infirmary; and Medical Officer for the Ryhall District of the Stamford Union, Lincolnshire, *vice* Mark William Jackson, F.R.C.S. Eng., L.S.A. Lond., deceased.

Samson.—Alexander Samuel Samson, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the third or Wyke Regis District of the Weymouth Union, Dorsetshire, *vice* Andrew Chadwick Fenoulhet, M.R.C.S. Eng., deceased.

Sherwood.—Dr. William Henry Sherwood has been appointed a Member of the Legislative Council of Her Majesty's Settlement on the River Gambia.

Smith.—George Smith, L.R.C.S. Edin., has been elected Vice-President of the Buchan Medical Society for 1862-3.

Symonds.—John Addington Symonds, M.D. Univ. Edin., F.R.C.P. Lond., F.R.S. Edin., has been elected President of the British Medical Association for 1862-3.

Voelcker.—Dr. Augustus Voelcker remains as Professor of Chemistry at the Royal Agricultural College, Cirencester, having withdrawn his resignation.

Walker.—David Walker, M.D. Qu. Univ. Irel., L.R.C.S. Irel., M.R.I.A., F.R.G.S., F.L.S., late Surgeon and Naturalist on board the R.Y.S. "*Fox*," and now proceeding to British Columbia, has been elected a Corresponding Member of the Zoological Society of London.

Webster.—George Webster, M.R.C.S. Eng., L.S.A. Lond., has been elected one of the Medical Officers of the new Camberwell Provident Dispensary.

Whitefield.—Charles Whitefield, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Crowland District of the Peterborough Union, in the Counties of Lincoln and Northampton, *vice* Charles Sharp Smith, M.R.C.S. Eng., L.S.A. Lond., resigned.

DEATHS.

Arbuckle.—August 24, Robert Arbuckle, of Auchenhay, Kirkcudbrightshire, M.D.

Arrott.—August 21, at Almerrie-close, Arbroath, Forfarshire, William Arrott, M.D. Univ. St. And., L.R.C.S. Edin., aged 88.

Dodd.—August 19, Charles Dodd, of St. Giles's-street, Northampton, M.R.C.S. Eng., L.S.A. Lond., one of the Surgeons to the Royal Victoria Dispensary, Northampton, and Surgeon to the Borough Gaol, aged 52.

Flexman.—August 18, William Flexman, of South Molton, Devonshire (in practice prior to August, 1815), aged 82. He had thrice filled the office of Mayor of the Borough.

Laing.—August 22, William Laing, of No. 7, Golden-square, Aberdeen, M.D. Univ. Mar. Coll. Aberd., Consulting Surgeon to the Aberdeen Royal Infirmary, aged 78.

Shee.—Recently, at Waterford, George Commons Shee, M.D.

Thomson.—August 21, at Kilkearn-road, Campbeltown, Andrew Thomson, of No. 17, Monteith-row, Glasgow, M.D. Univ. Glasg., L.F.P.S. Glasg.

Tice.—July 10, on board ship, a few hours after leaving Calcutta, John Charles Graham Tice, C.B., L.K.Q.C.P. Irel., M.R.C.S. Eng., Deputy Inspector-General of Hospitals, aged 50.

Williams.—July 5, at his residence, Thibodaux, La., America, Dr. Richard Dalton Williams, aged about 40. He studied medicine in Dublin, and quitted Ireland in consequence of having been an active participator in the rebellion of 1848. He for some time filled the chair of Belles Lettres in Springfield College, Mobile, and subsequently removed to New Orleans, where he married and followed his Profession for many years; and during the same time contributed to the leading journals and periodical publications.

Young.—June 26, at Belize, British Honduras, the Hon. John Young, M.D.

A New Specialty in a Russian Hospital.—The Russian Government has ordered that a division of the Military Hospital at Kiew should be devoted to the detection of simulated diseases, the determination of the responsibility of delinquents, and the ascertaining whether a possibility or impossibility of continuance in the service exists, etc. The Professor of Medical Jurisprudence at the University of Wladimir has been placed at the head of this division of the Hospital.

New Special Chairs at the Paris Faculty of Medicine.—M. Rayer, the new Dean of the Faculty (Dean by *coup d'état*, as he is commonly called by reason of the suddenness of his imposition on the Faculty), has just addressed a Report to the Minister of Public Instruction, asking for the appointment of new Chairs at the Faculty, on the ground that its instruction is not sufficiently specialised, for which specialties he says the *agregés*, who are officers of Hospitals, and are at present unemployed in teaching, are admirably adapted. The Minister has in consequence issued a decree appointing certain Clinical Courses of Lectures as supplementary to the practical Medical studies, viz., courses on Diseases of the Skin; on Syphilitic Diseases; on Diseases of Children; on Mental and Nervous Diseases; on Diseases of the Eye; and on Diseases of the Urinary Organs. *Agregés* who are Physicians or Surgeons to Hospitals are eligible for three years.

One of the most important contributions to Philosophical Anatomy that has been published during the last ten years has appeared at Paris during the past fortnight, by M. Camille Bertrand, M.D. of the Faculty of Medicine at Montpellier, entitled "*Conformation osseuse de la Tête chez l'homme et chez les vertébrés.*" It reproduces Prof. Owen's system of homology, but differs from that author in various minor respects, *e.g.*, in the non-recognition that the scapular arch is the hæmal arch of the occipital segment. Failing to perceive this affinity, M. Bertrand recognises the hæmal arch in the thyrohyal bones (= hypobranchial of fishes), whilst the other hyoid bones (*e.g.*, glossohyal, basihyal, stylohyal, ceratohyal, epihyal, urohyal,) are component parts of the parietal vertebra. Our space necessarily precludes us from entering into this delicate and interesting subject of Transcendental Anatomy; we will merely remark that we do not think that M. Bertrand has demonstrated the serial homology of the thyrohyals as occipital hæmapophyses. The numeration of the bones in his system differs considerably from that adopted by Owen and our best anatomists. Beautifully engraved plates are given of the skulls of the various vertebrate classes, and the aid of chromolithography has been called in to demonstrate serial homology; an aid which has been here long employed to demonstrate general homology. An instance from the Montpellier Museum of a paroccipital bone in man is figured, which is as large or larger than any specimen we recollect exhibiting that abnormity, as it is not only much longer, but much thicker than its serial homologue, the mastoid. M. Bertrand gives concise summaries of the vertebral theories of Oken, Dumeril, Spix, E. Geoff. St. Hilaire, Carus, Owen, Goodsir, and Humphry, and his work altogether is one of the most lucid expositions of morphological osteology that we have seen, and stands in strong contrast to those retrograde attempts in philosophical anatomy which have been lately promulgated under the most distinguished names.

Quarantine in the Thames.—At this moment an iron screw steamer lies in the Victoria docks at Blackwall, on board which certainly eight people, if not nine, have very recently died, in a manner which has been sought to be concealed or mystified. The vessel, the *Melita*, of 800 tons, belongs to Messrs. Begbie and Campbell, of Mansion-house-place. She has arrived in the Thames under circumstances so calculated at first to inspire alarm that they have been brought prominently and specially under the notice of the Commissioners of Customs. She left Nassau, New Providence, so recently as August 2, having previously, it is said, run the blockade at Charleston. She had on board a crew of some fifty officers and men and twenty-three passengers, with a general cargo, including about twenty-five bales of cotton. On the voyage home, which lasted barely twenty days, no fewer than seven of the passengers and the engineer of the vessel died of yellow fever, it is reported, and were buried at sea. The captain and two of the passengers landed at Dover, leaving the ship in charge of the chief mate and a pilot. She then steamed up the Thames, evaded the quarantine regulations at Gravesend, and arrived in the Victoria docks on the morning of Wednesday or Thursday last. There she was boarded and overhauled in the usual manner by Mr. Richards, an examining officer of Customs, who, in the course of his search, heard from some of the crew in an incidental way what had happened on the voyage, and which he deemed it his duty to report immediately to head-quarters. He and two or three of his assistants, with a pilot named Brooks and some other people who had gone on board, apprehending nothing wrong, were con-

demned to remain there, as were also all the surviving passengers and crew, during three or four days and nights. The vessel was pushed off into the basin, detached from the quay and away from the rest of the ships, while a vigilant guard was kept over her lest any one on board should escape, and, what was much less likely, lest any one should approach her.

Surrey Hospital.—The Committee of the proposed Surrey County Hospital state that the funds have been steadily increasing since the public meeting, held on April 23, and that at the present date they amount to £5700. This, however, includes a sum of £500 announced at the public meeting as offered conditionally on the gift of five other equal sums. Another offer has since been made by a gentleman from the Metropolitan district, in the following words:—"I have much pleasure in offering a donation of £400, to be paid on the completion of the Hospital, provided that eight donations of £200 are given within the next six months; or, a donation of £500, provided that five other sums of the same amount, not inclusive of the gift of land, are given within the same time; or, a donation of £1000, provided that three other sums of this last amount are given; but in the event of the two first conditions being complied with in the time mentioned, I shall be happy to give £1000." A scale of privileges has been drawn up on the general basis that every donor of twenty guineas, and every annual subscriber of two guineas, shall be entitled to recommend one in-patient and two out-patients, or eight out-patients in the year. Upon the report of the Building Committee, an advertisement has been issued to architects, desiring to compete for the erection of the Hospital, to send in plans by September 30,—their attention being especially directed to the ventilation, drainage, warming, and other details on which the real efficiency of the Hospital will ultimately depend. The Committee having ascertained that the single acre of ground, so liberally given as a site by the Earl of Onslow, would not be sufficient to supply garden and exercise ground for the patients, have made application to his Lordship for permission to rent on lease an additional piece of land, adjoining the site given for the building; and he has kindly acceded to their request, and agreed to grant a twenty-one years' lease of an additional acre. The Committee trust, therefore, to be able to lay the first stone of the building before the ensuing winter. The promises amount to £5650; actual receipts, to £1356; and expenses to July, £289 17s. 3d.

The Manchester Murders.—In the trial of Taylor for the murder of Mr. Meller, the defence was founded on the ground of supposed insanity. As the only proof of unsoundness of mind was the commission of the crime, this plea was very justly disposed of by the Judge in his summing up, who told the jury "that in a civilised community like this they would not be doing their duty to themselves or to the public if they tried such a question as this otherwise than by the light of common sense. It was clearly made out that the late unfortunate Mr. Meller had been killed by the male prisoner. The defence was that of insanity, and the jury were invited to say that the prisoner was insane. No act had been proved to show that he was an insane man. No word had passed his mouth that was not the language of a sane man. No want of health had been proved by any Medical man. There had been no proof that in the ordinary affairs of life he did not properly conduct himself. Therefore, this was the case of a man apparently perfectly sane, having a settled purpose, who, without any extravagant act, stabbed a man. His learned counsel had very eloquently alluded to a storm coming over unobserved, as like the sudden overcasting of a man's reason; but where was such a defence to stop? Who was not mad who committed a dreadful murder? Where were they to stop? The suggestion was almost that of madness gone mad. In many cases where such a defence was raised proof was given of hereditary insanity, and of peculiar demeanour immediately before the acts done, and whether the person accused was in a perfectly sound state of mind. But he was sorry to say there was no trace of anything of the kind here except that the prisoner had committed an act from which any one would have shuddered. Then, this was a case not without a strong motive. The prisoner, rightly or wrongly, nourished great resentment against this unfortunate man. Then, the case was, that they had a sane man acting under strong resentment. All the evidence there was to show that the prisoner was not responsible was that the crime was so dreadful that a sane man would not commit it." There can be no doubt that revenge had been voluntarily nursed by Taylor until it had become the overmastering principle in his character. His wife, although it was proved that she had carried and presented a pistol at the time of the attack on Meller, was acquitted.

Domestic Employment of Castor Oil in China.—In China, castor oil is constantly employed for the ordinary purposes of life, as we should use olive oil or butter, its evacuant action having become subtended by force of habit. The Chinese, however, sometimes forget that Europeans do not enjoy this immunity, and M. Stanislaus Martin relates that several years ago some French envoys believed themselves to have been poisoned by the mandarins, who had invited them to dinner. All the dishes had been prepared with the oil of *palma christi*, which induced a terrible purgation; but happily the discovery was made before reprisals, for what appeared to have been traitorous conduct, were taken.

The Bite of a Rattlesnake.—Mr. George W. Kendall writes the following, from Texas, to a newspaper in New Orleans:—"Before I forget I must tell you that the medicine chest has just arrived, and the very moment I opened it I found a pressing use for one of the articles it contained. I was counting over the flasks, when one of my men came running in, and exclaimed that he had just been bitten by a rattlesnake. He held his left wrist, while two streams of blood flowed from one of his fingers, where the fangs of the serpent had pierced him. As the man had no tobacco, I told him to fill his mouth with salt, and with all his might suck the wound. I then held a cloth steeped in hartshorn on the wound, to counteract the working of the poison I next put thirty drops of hartshorn into a glassful of whisky, and poured the whole contents down his throat. Five minutes afterwards I repeated the dose, and again in other five minutes. I had now administered a whole quart (!) of whisky, with ninety drops of hartshorn, and held it sufficient. The man was an Irishman, an old soldier, and took the thing very coolly. It was a great satisfaction to him when he heard that another man had killed the serpent. For three-quarters of an hour he sat quiet, and spoke about the bite with coldblooded indifference, while I continued to renew the application of hartshorn to the wound in the finger. He said it was too bad that he should die of the bite of a poisonous snake, while I was astonished he could remain unaffected after such a dose of whisky. After about an hour he began to laugh, then to whistle, then to sing, and finally attempted to dance. It was now all right. I knew that the whisky had gained the upper hand of the poison, and for the first time intoxicated him. Five minutes after he was as drunk as Bacchus, beat on the ground with his feet, slept for half a day, and in the morning was well and at his work. So much for the first case which I have cured with the contents of the medicine chest! The hartshorn, with the whisky, completed the cure."

BOOKS RECEIVED.

Report of the Committee of the Manchester and Salford Sanitary Association for the year 1861; with Appendices on Cottage-dwellings; Action of Water upon Lead; Analysis of Weekly Returns; Open Spaces and Public Play-grounds. Manchester: Poulson. 1862. Pamphlet.

Report of Clinical Cases Treated, during the Session 1860-61, in the Surgical Wards of the Royal Infirmary, under the care of James Spence, Esq., F.R.C.S.E., Lecturer on Clinical Surgery. Edinburgh: Oliver and Boyd. 1862. Pamphlet. Pp. 38.

Clinical Medicine. Observations Recorded at the Bedside, with Commentaries. By W. T. Gairdner, Physician to the Royal Infirmary of Edinburgh, and Lecturer on the Practice of Medicine. Edinburgh: Edmonston and Douglas. 1862. Pp. 741.

On the Practical Use of Mental Science. By J. Stevenson Bushnan, M.D., Resident Proprietor of Laverstock House Asylum. Reprinted from the *Journal of Mental Science*, April, 1862. London: J. E. Adlard. 1862. Pamphlet. Pp. 28.

On Uterine and Ovarian Inflammation; and on the Physiology and Diseases of Menstruation. By Edward John Tilt, M.D., Consulting-Physician to the Farringdon General Dispensary. Third Edition, with coloured plates. London: Churchill. 1862. Pp. 470.

The Pathology and Treatment of Phlegmasia Dolens, as Deduced from Clinical and Physiological Researches; being the Lettsomian Lectures on Midwifery. Delivered before the Medical Society of London, during the Session 1861-62. By F. W. Mackenzie, M.D., M.R.C.P.L., Physician to the Queen Charlotte's Lying-in Hospital. London: Churchill. 1862. Pp. 131.

On Some of the More Important Diseases of the Army, with Contributions to Pathology. By John Davy, M.D., F.R.S. London and Edinburgh, etc., Inspector-General of Army Hospitals, H.P. Williams and Norgate, 14, Henrietta-street, Covent-garden. London. 1862. Pp. 438.

The Spas of Europe. By Julius Althaus, M.D., Member of the Royal College of Physicians, London, etc. London: Trübner and Co., 60, Paternoster-row. 1862. Pp. 494.

A Plain and Easy Account of British Fungi: with Descriptions of the Esculent and Poisonous Species; Details of the Principles of Scientific Classification, and a Tabular Arrangement of Orders and Genera. By M. C. Cooke, Author of "A Manual of Structural Botany," "A Manual of Botanic Terms," etc. With twenty-four coloured plates. London: Robert Hardwicke, 192, Piccadilly. 1862. Pp. 148.

The Law of Storms Considered in Connexion with the Ordinary Movements of the Atmosphere. By H. W. Dove, F.R.S., Member of the Academies of Berlin, etc. With diagrams and charts of storms. Second Edition, entirely revised and considerably enlarged. Translated, with the Author's sanction and assistance, by Robert H. Scott, M.A., Trinity College, Dublin. London: Longman. 1862. Pp. 324.

On the Growth of the Recruit and Young Soldier, with a View to a Judicious Selection of "Growing Lads" for the Army, and a Regulated System of Training for Recruits. By William Aitken, M.D. Edin., Professor of Pathology in the Army Medical School, etc. London: Griffin, Bohn, and Co. 1862. Pp. 72.

The Art of Perfumery, and the Methods of Obtaining the Odours of Plants, with Instructions for the Manufacture of Perfumes for the Handkerchief, Scented Powders, Odorous Vinegars, Dentifrices, Pomatums, Cosmetics, Perfumed Soap, etc. To which is added an Appendix on preparing artificial fruit, essences, etc. By G. W. Septimus Piesse, Analytical Chemist; Author of "Chemical, Natural, and Physical Magic," "The Laboratory of Chemical Wonders," etc. Third Edition. London: Longman. 1862. Pp. 396.

An Introduction to Clinical Medicine, being Lectures on the Method of Examining Patients, and the Means necessary for Arriving at an Exact Diagnosis. By John Hughes Bennett, M.D., F.R.S.E., Professor of the Institutes of Medicine, and Senior Professor of Clinical Medicine in the University of Edin., etc. Fourth Edition, with 130 woodcuts. Edinburgh: Adam and Charles Black. 1862. Pp. 182.

General Debility and Defective Nutrition; their Causes, Consequences, and Treatment. By Alfred Smee, F.R.S., Senior Surgeon to the Royal General Dispensary. Second Edition. London: Churchill. 1862. Pp. 117.

Manuals of the Duties of Poor-law Medical Officers. Second Edition. By William Golden Lumley Esq., Barrister-at-Law, Assistant-Secretary to the Poor-law Board. London: Knight and Co., 90, Fleet-street. 1857. Pp. 112.

Researches and Observations on Pelvic Hæmatocele. By J. Byrne, M.D., M.R.C.S.E., Resident Fellow of the New York Academy of Medicine, etc. New York: William Wood, 61, Walker-street. 1862. Pamphlet. Pp. 44.

Clinical Observations in Surgery. By Dr. Fayrer, Professor of Surgery and Surgeon at the Medical College Hospital. 1862. Calcutta: R. C. Lepage and Co. Pamphlet. Pp. 35.

The Mammary Signs of Pregnancy and of Recent Delivery. By J. Lumley Earle, M.D., Resident Surgeon-Accoucheur to the Birmingham General Dispensary. London: John W. Davies, 54, Princes-street. Pp. 34.

On the Nature, Causes, Variety, and Treatment of Bodily Deformities, in a Series of Lectures delivered at the City Orthopædic Hospital in the year 1852, and subsequently by E. J. Chance, F.R.C.S.E., Senior Surgeon to the Metropolitan Free Hospital, etc., with copious notes, and illustrated by numerous engravings drawn on the wood by the author from cases in his own practice. In two parts. Part I. London: T. T. Lemare, Paternoster-row. 1862. Pp. 304.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 23, 1862.

BIRTHS.

Births of Boys, 942; Girls, 908; Total, 1850.
Average of 10 corresponding weeks, 1852-61, 1611·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	620	634	1254
Average of the ten years 1852-61	591·3	585·0	1176·3
Average corrected to increased population..	..	..	1254
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	1	2	13	4	8	9	18
North ..	618,210	1	3	17	7	6	11	27
Central ..	378,058	..	4	14	2	4	8	14
East	571,158	4	24	13	1	8	27	31
South ..	773,175	3	6	11	2	6	14	33
Total.. ..	2,803,989	9	39	68	16	32	69	123

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·803 in.
Mean temperature	59·6
Highest point of thermometer	74·8
Lowest point of thermometer	46·8
Mean dew-point temperature	56·1
General direction of wind	Variable.
Whole amount of rain in the week	1·57 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Durham.—If Medical men do not show decent respect towards each other, they cannot expect better treatment from the public. With the measure they mete it shall be measured to them again. Jealousy and a spirit of detraction in reference to other Practitioners openly evinced in a court of justice, disgraces not only the individual, but his profession. Such instances we are happy to say are not common, but when they do occur, they should, for the credit of Medicine, be taken up and investigated by a Local Ethical Medical Society, if it exist, or by a Committee specially appointed by the Medical men of the county. Some of the passages in the Medical evidence in reference to a case of suspected poisoning at Framwelgate Moor appear to us to demand such an inquiry.

We have not the smallest hesitation in enforcing the claims of Dr. Stevenson Bushnan, whether he desires to set up a new Journal of Psychological Medicine, or to assume the direction of any existing Journal. His Papers which have appeared in the *Journal of Mental Science*, proclaim him to be a Psychologist in the proper meaning of the term; while his reviews and his works upon Mesmerism, Homœopathy, Miss Martineau, "*et hoc genus omne*," show him to be not only an opponent but an exposer of Professional humbug, and, therefore, the better qualified to place his constituents well with the public. Moreover, Dr. Bushnan is largely engaged in the treatment and care of the insane; he has had considerable experience in authorship; he has had the advantage of residence at the seats of the great Continental Schools of Medicine, as well as those of the United Kingdom; he is well acquainted with the Medical literature of France and Germany; and is not unaccustomed to journalism.

Mrs. Gamp's last.—To Physician: "Please, Sir, now the lady's bowels is removed, shall I give her some consecrated beef-tea?" (*Qy.* concentrated?)

Derivation of "Aneroid."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to call Dr. Mayne's attention to a fifth, and probably correct, derivation of the word "aneroid," viz.:—"*a* without, *νηρος* watery," and "*εἶδος* form." This is the derivation given in Brande's "Dictionary of Literature, Science, and Art," second edition, 1852, page 1347.

August 25. I am, &c. G. F. B.

"Rejected Candidates."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A paragraph in a Medical Journal of the 16th inst., headed "The Rejected Candidates," contains a misstatement which I shall be obliged if you will permit me through the medium of your columns to correct. It is said that "the Madras Government have reversed the decision of the home authorities in the case of Mr. Thompson, an Anglo-Indian, and Pandy, a native, who were not allowed to enter H.M.'s Medical service after having been induced to come to England to compete for the Indian service. Both have been Sub-Assistant-Surgeons without examination, and will do duty in the Vaccination department."

Now, Sir, the idea alone of the Madras Government reversing an order of the Home authorities is ridiculous enough in itself; but to publish it as having become an accomplished fact, is a blunder with which we might hardly have expected to meet. The subordinate Medical department of the Madras Presidency comprises the ranks of Dresser, Apothecary, and Sub-Assistant-Surgeon. These appointments are invariably filled by natives or half-castes; and it is as Sub-Assistant-Surgeons that the Madras Government have very appropriately and justly found employment for Messrs. Thompson and Pandy.

I need scarcely remark, that the Madras Government have not "reversed the decision of the Home authorities," who denied not the advisability of natives "to enter H. M.'s Medical service" in capacities suitable to their social position, habits and education, but the propriety of promiscuously granting them commissions in Her Majesty's army, which is, and should be only, officered by European gentlemen. I am, &c. A. B.

London, August 28.

[It may be that in England we are no judges of the merits of the case. We only know that there are gentlemen born in Asia as well as in Europe. The fellow-students of the Hindoo gentlemen educated as Surgeons and Physicians at University College between the years 1845 and 1850 will readily bear witness to their perfect equality in attainments and breeding with English students.—Ed.]

An Advertisement.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As publicity is evidently the object of the enclosed advertisement, taken from the *West London Observer* of Saturday last, I beg to send it to your widely circulated Journal. Its composition is remarkable; and what is really peculiar is that the Dispensary is at the author's residence. This system of advertising one's self is most reprehensible.

Fulham, August 26, 1862. I am, &c. Delta.

"Fulham Dispensary.—Park-lodge, Parson's-green, Fulham.—Conducted by W. Churchill Dempsey, M.R.C.S. Eng., L.S.A.L., late Surgeon of the City of London Dispensary, and Surgeon to the London Home.—The object of this Dispensary is for the purpose of affording Medical and Surgical relief to the poor not receiving parochial support.

"The day has arrived when men are stretching forth their hands to do good with the wealth God has blessed them with, and to see the beneficial workings of the same, instead of bequeathing it to persons under whose management the true object may, and does often fall into channels where great delay arises, and the real intention of the donor is frequently frustrated by some litigation.

"There are a great number of deserving poor in Fulham, who are not desirous of having their names associated with the Parish, and these, with the servants of subscribers, are the available objects aimed at in this undertaking. By helping them we shall keep up a high and noble spirit amongst this class of our fellow-creatures.

"Some of the first Gentlemen in the Profession, of the highest rank and reputation, have offered their co-operation and assistance. An Annual Subscriber of £1 1s. will have the privilege of recommending three patients yearly."—*West London Observer.*

The New Bye-law of the London College of Physicians and the Title of Doctor.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A new Bye-law of the London College of Physicians relating to the title of Doctor having been published in your last week's Journal, allow me to ask, Whether that Bye-law has reference to the present Fellows, Members, and old Licentiates, who have been officially styled "Dr." by the College authorities, or whether it refers only to those who enter the College from the date of the new Bye law?

No mention is made as to the kind of University degree which a Fellow, Member, or Licentiate must possess in order to be styled "Dr." This omission is very remarkable, and requires an explanation in order to show upon what principle the Corporation refuses to give the title of Doctor to their Fellows and Members who possess a diploma which enables them to "enjoy all the highest honours, titles, privileges, etc."

Those who enter the College under the new Bye-law cannot complain if they are not addressed or permitted to use the title of Doctor, though it would be an act of madness for any member of the Profession to allow himself to be restricted in his practice without that title. It is said, that "a Physician without the title of Doctor had better be a tallow-chandler."

If the Bye-law embraces those who are now in practice, it is not only most uncourteous, but most unjust, to deprive them of a long invested right, and I appeal to those who made that Bye-law whether they can conscientiously take away a title which they have given, and authenticated by word and deed?

If the Corporation have broken good faith with those Fellows and Members who have practised in accordance with the College Bye-laws, what confidence can the Profession place in the rulers of that College? Let us hope, however, that there are gentlemen in that venerable College who would sooner resign their Profession than degrade a Professional brother without a cause; such an act of persecution could never be tolerated in these enlightened times. In order, however, to show the difference between the past and present mode of address adopted by the College, I refer back to the day of passing my examination, immediately after which I was addressed by the Registrar as "Doctor"; and all letters and invitations to the College were in like manner thus courteously addressed; but during the last twelve months or so I have been, what I consider, most uncourteously addressed, the "Dr." being converted into "Mr. or Esq."

The new Medical Act could not bring about such a change; but the new Bye-law unfolds the mystery. If the title column which was struck out of the new Medical Bill had been reinstated in the Act, it would have been incumbent upon the Corporation of the College of Physicians to have supported and defended their Fellows and Members, to the utmost in their power, against any loss of position; for no Act of Parliament could deprive the College of its powers so as to inflict an injury upon the present generation connected with that College by examination, and testified by a diploma bearing a stamp of fifteen pounds. I am, &c.

A Physician.

Professional Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In reference to Mr. James Edmunds' letter which appears in your last Number, I must request your publication of the following:—

On Saturday, August 16, I received a letter, addressed to my partner, from my friend Mr. C. L. Smith, asking him to call at their works on the following Monday to see the father of their foreman, who was lying ill of a tumour. I called on the Monday, and during my conversation about the case heard that Mr. Edmunds had been in attendance for some weeks. I demurred at seeing the case, and stated that I had no intention of taking a patient from Mr. Edmunds. At my friend's urgent request, and to save delay, I saw the patient, whose condition was as follows:—On the middle of the left thigh there was a large encephaloid tumour, the size of a child's head, and to satisfy myself of the state of the femur, I gently rotated the ankle, which gave some slight pain to the patient, and assured me of an ununited fracture with the two ends embedded in the mass of the tumour. There were three or four other large superficial masses on different parts of the body. Having satisfied myself from the patient's history and appearance of the nature of the case, I told Mr. Smith that it was hopeless, and that I could recommend no further treatment than was being pursued, and that I would call on Mr. Edmunds my first opportunity. I was so engaged on the following day that I could not call until Wednesday morning, when I was most insolently received by Mr. Edmunds, who told me that my conduct had been such as to induce him to recommend the patient and his friends to commence an action at law immediately against me. Further, he added that he was glad of the opportunity of retaliating on me as a Member of Council of the Hunterian Society for a unanimous resolution by which that body during last session marked their opinion of Mr. Edmunds' zeal for professional etiquette, and from the effects of which Mr. E. appears still to be smarting. Thus Mr. Edmunds himself admits the *animus* that prompts his attack; his veracity in describing my introduction to the patient, and my outrageous violence to him are on a par with his pathology in accusing me of severing the untrustworthy union of a cancerous femur. I am, &c.

23, Finsbury-place, August 26. Thos. B. Crosby, F.R.C.S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having seen Mr. Edmunds' letter published in the *Medical Times and Gazette* of Saturday last, I feel it but due to Mr. Crosby to say that on Saturday, the 16th inst., I wrote requesting his partner, who was then absent from London, to call and see the father of our foreman, who was laid up at our works with a tumour, in which note no mention was made of a Medical man being in attendance.

Mr. Crosby came on the Monday following, and hearing that the patient had been for nine weeks under Mr. Edmunds' care, at first demurred at seeing him, but ultimately acceded to my request that he would do so, our object being, as I explained at the time, to obtain a thoroughly independent opinion.

Not the slightest attempt was made, either by Mr. Crosby or myself, to take the case out of Mr. Edmunds' hands, with whom the friends of the patient were perfectly satisfied, and after Mr. Crosby had explained the hopeless nature of the case, he left, without prescribing anything, with the intention of calling upon Mr. Edmunds.

I am, &c. C. Lavers Smith.

Archil Works, 13, Corbet's-court, Spitalfields, August 26.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I understand that Mr. Crosby states that the thigh under the care of Dr. Edmunds and myself was ununited. I am unable to refrain from saying that I saw the patient shortly before Mr. Crosby's visit, and that to the eye the limb was of normal length, and that the most careful measurement had indicated but very slight shortening. Moreover, the patient was comfortable and able to shift about in bed; all retentive apparatus having been discarded, except a sandbag for occasional use to the foot.

After Mr. Crosby's visit I was astounded to find the limb greatly bent, the ends of the bone overriding, and the limb several inches shorter. The patient told me that he had been "very roughly handled" and that Mr. Crosby had "laid hold of the foot and worked it about until the pain lifted him up in bed."

I am concerned to find that Mr. Crosby has not only strangely overlooked the Medical proprieties of the position, but in order to palliate the matter has unscrupulously assailed the Professional judgment of those who had carefully watched the patient from the first.

Moreover, it was so obviously a case of encephaloid disease that I am at a loss to conjecture the object of Mr. Crosby's manipulation.

7, Spital-square. I am, &c. Grainger Tandy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to add that, after the despatch of my letter, Mr. Crosby called to consult with me about the case in question. I have also learnt that Mr. Crosby was not in the adjoining house "casually," as stated by me, but in consequence of a note which had been sent to Mr. Sewell by the employer of the patient's son. Although the patient was comfortable and was acquiring power in the limb, I had predicted that the ultimate result would be unfavourable to both limb and life, as there was cancerous disease of the bone. I had also suggested that another consultation might be held, and amongst other eminent Surgeons, had named Mr. Gay as an opinion which would insure them against any stone being left unturned in the treatment. In consequence of this, a note was sent to Mr. Sewell, but Mr. Crosby appeared in that gentleman's place. The writer of the note informed Mr. Crosby of the history of the case, and of the perfect satisfaction with their Medical attendance; but after this, Mr. Crosby, instead of communicating with me, not only visited the patient and delivered an opinion, but also took upon himself to test the union. He rotated the limb largely, and to use the patient's expression, "as if he had hold of the leg of a horse," and, in fact, until checked by the instinctive remonstrances of the patient and bystanders. After this, Mr. Crosby delivered his opinion and departed, having bustled through the entire transaction in a few minutes.

Two days after this I am favoured with a call, but, of course, refused to meet a gentleman who had so conducted himself. I am, &c.

2, Spital-square. James Edmunds.

COMMUNICATIONS have been received from—

Mr. J. T. Clover; Mr. D. O. Edwards; Mr. Colam; Mr. Baker; The Crystal Palace Company; Dr. W. Cooke; Dr. T. B. Moriarty; Durham; P.; Ormskirk; Mr. C. C. Blake; Dr. Ramsbotham; St. Andrews; Professor Gulliver; Mr. W. T. Colby; Dr. Eves; Mr. W. Bird; Mr. J. Z. Laurence; Dr. W. H. O. Sankey; Dr. Figg; Birmingham; R. B.; Mr. J. M. Cardell; Delta; Dr. Gull; Dr. Smart; A Physician; Mr. W. Nicholas; G. F. B.; M.R.C.P. Lond. (1); M.R.C.P. Lond. (2); M.R.C.P. Lond. (3); Edinburgh; Aberdeen; "Alieno Periculo Tutus;" "Sadder and Wiser;" Mr. John Smith; "Two 'pun Ten."

APPOINTMENTS FOR THE WEEK.

August 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

September 1. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

2. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

5. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

TOWLE'S CHLORODYNE.

FROM IMPROVED FORMULA OF DR. OGDEN.

REGISTERED.

Dose, 5 to 20 drops.

PRESENTING THE ADVANTAGES OF

KNOWN COMPOSITION AND UNIFORM MIXTURE,

COMBINED WITH

MODERATE PRICE.

Important Letter, Published by Permission.

From Dr. C. KIDD, Author of standard works on Chloroform :—"Sir,—I think if you would advertise your 'Chlorodyne' more than you do, you would help to beat the other *secret* compounds out of the market Of the value of Chlorodyne given internally, I have no doubt ; it appears to me in that form an anodyne *sui generis* that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of Chlorodyne, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me and recommend your compound, but will never prescribe a *secret* remedy. (Signed) Charles Kidd, M.D., and Surgeon, Sackville-street, Piccadilly, London, April, 1862."

Sold in ½oz. bottles, 1s., 1oz. 1s. 6d., 2oz. 2s. 6d., 4oz. 4s. Prepared by A. P. TOWLE, Chemist, &c., Ardwick, Manchester. May be had from Barclay and Son, Farringdon-street ; or through any Wholesale House.

Pulvis Jacobi ver, Newbery's,

is the ORIGINAL & GENUINE, was ESTABLISHED A.D. 1746,

And is Prescribed, with the greatest success, "by the highest authorities," for Fevers, Ague, Cerebral Congestion, Rheumatism, Chills, Influenza, &c. &c.

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

Prices for Dispensing—1 oz., 9s. ; ¼ oz., 3s. 4d.

CHLORODYNE *Ver.*, *viz.* DR. J. COLLIS BROWNE'S.

THE ORIGINAL AND ONLY GENUINE.

Dr. J. Collis Browne, M.R.C.S.L. (Ex-Army Medical Staff), after many years of study and experiment, succeeded in discovering in 1846 a remedy which should possess the property of an Anodyne, Sedative, Diaphoretic, Antispasmodic, and Astringent ; for this new Remedial Agent he was obliged to find a name, and coined the appellate Chlorodyne, as specifically indicating this remedy,—a word unheard of and unknown until 1856, when he introduced it for public use through myself, J. T. DAVENPORT, Pharmaceutist, 33, Great Russell-street, Bloomsbury-square, London, to whom he confided the RECIPE and its mode of Manufacture, never having divulged or published the secret of its Formula.

The Medical Profession are therefore CAUTIONED to reject the announcements of certain persons, who adopt the term and affix it to spurious compounds in imitation, *speciously* pretending that they are competent and capable of preparing it properly and uniformly, well knowing they have no authority to do so, not being in possession of Dr. Browne's formula.

The *only Authorised Formula is in my sole Possession*, and I give an unqualified denial that it has ever been published. The fictitious and pretended analyses of Chlorodyne only deceive, and are altogether different from Dr. Browne's invaluable preparation.

Note.—*One great feature of success* in employing efficient remedies depends on their *fidelity* and *genuineness ;* if spurious compounds are substituted, the patient suffers and the Physician loses confidence, and it is known to many Pharmaceutists and Chemists to their cost, that the patronage of Physician and patient have been immediately withdrawn on their learning of spurious compounds having been substituted when Chlorodyne was ordered.

The extraordinary success attending the use of Chlorodyne has given rise to a series of imitations ; it is, therefore, doubly incumbent on Physicians and Surgeons when prescribing this preparation to write "*Chlorodyne. Dr. J. C. B.'s.*"

Each Genuine Bottle has the words Dr. J. Collis Browne's Chlorodyne engraved in White Letters on a Red Ground.

To be obtained from all Wholesale Druggists.

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Liquor Carbonis Detergens, or

CONCENTRATED ALCOHOLIC SOLUTION of the ACTIVE PRINCIPLES of COAL-TAR ; a new Remedy in Cutaneous Affections, &c., presenting in an elegant and effective form the several virtues of the Tar, which are held in solution by the alcohol, and thus rendered applicable to all the purposes of Hygiene, Medicine, and Natural History. As a Dressing for Putrid Sores where a disinfectant is at the same time desirable, the emulsion formed of any required strength by the addition of water, is most readily exhibited, mere agitation producing immediately perfect combination.

Prepared at the Laboratory of WRIGHT, FRANCIS, and Co., Wholesale Druggists, 11, OLD FISH-STREET, LONDON, E.C., and may be obtained through any Chemist.

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Williams and Son's Pure Glycerine

SOAP. Analysed by Dr. Hofmann, F.R.S., and Professor Redwood, Ph.D., strongly recommended by many eminent members of the Medical Profession, and favourably noticed by the following Medical Journals :—

The Lancet.
The Medical Times and Gazette.
The British Medical Journal.
The Medical Circular.
Edinburgh Medical Journal.
The Dublin Hospital Gazette.

It is suited to all cases of delicate skin (whether arising from disease or otherwise), and is admirably adapted for nursery use. May be had of all respectable Chemists, Perfumers, &c.

Soap-works, Clerkenwell, London, E.C.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE EYE.

DELIVERED AT

The Middlesex Hospital,

BY

SOELBERG WELLS, M.R.C.S. Eng., M.D. Edin.
Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital.

STRABISMUS.

Lecture I.

Gentlemen,—We have now to turn our attention to the consideration of the various forms of squint and their treatment. You should endeavour to master the theoretical portion of this subject thoroughly before you attempt to operate for the cure of this affection; for although the operation for squint is not *per se* a difficult one, we yet meet with many cases which require very great exactitude and nicety, not only in the preliminary examination, but in the mode of operation. Still more difficult and intricate are those cases in which we operate less for the cure of the deformity, which is, perhaps, hardly observable, than for the purpose of freeing the patient from the great and constant annoyance of the diplopia. These demand a thorough knowledge of the individual actions of the muscles of the eyeball, an intimate acquaintance with the various forms of diplopia, and considerable manual dexterity in the performance of the operation, the extent and character of which should be accurately determined upon beforehand. These cases, indeed, often form some of the most difficult problems in Ophthalmic Surgery, and can be only successfully treated by those who have mastered the theory of this and kindred subjects. A want of such knowledge brought the operation for squint into almost complete disrepute, and we are chiefly indebted to Von Graefe for having extricated it from the obloquy with which it had, not undeservedly, been visited, and for having rendered it one of the most successful operations in Surgery. He has achieved this success not so much by improving the mode of operation, as by his elaborate researches into the physiology and symptomatology of the various forms of squint, which have enabled him to lay down exact data for their successful treatment.

As my time will only permit me to bring before you the more important points of this subject, and to give you but a sketch of the modern doctrines of squint (following particularly Von Graefe's views), I must refer you for further information to his admirable treatise upon this subject,—"Archiv. f. Ophthalmologie," iii. 1. Symptomatically we mean by the term squint an inability to bring both optic axes to bear simultaneously upon one point, the one always deviating in a certain direction from the object. If the squinting eye deviates inwards it is called a convergent squint, if outwards a divergent squint, if it squints upwards strabismus sursumvergens, if downwards strabismus deorsumvergens.

The name strabismus was formerly indiscriminately applied to all abnormal deviations of the optic axes, whatever their cause, whether they were due to paralysis or spasm of one or more of the muscles of the eyeball, or whether some tumour, etc., of the orbit prevented the free movement of the eye in certain directions.

We now, however, limit the term strabismus (or strabismus concomitans of Von Graefe, a name we shall adopt) to that group of cases which presents those well-defined and constant symptoms which I shall afterwards bring before you. But before entering upon the symptomatology of squint, it will be necessary, first, to explain to you the various forms of diplopia, and also shortly to glance at the action and use of prismatic glasses.

In explanation of diplopia, I give the following extract from my Papers on "Paralytic Affections of the Muscles of the Eye" (Ophth. Hosp. Reports):—

"An object only appears single when both optic axes are fixed upon it; any pathological deviation of either optic axis must necessarily cause diplopia, as the rays from the object do not then fall upon identical portions of the retina. The slightest degree of diplopia is that in which the double images are not yet distinctly defined (are masked), but seem to lie slightly over each other, so that the object appears to have a halo round it.

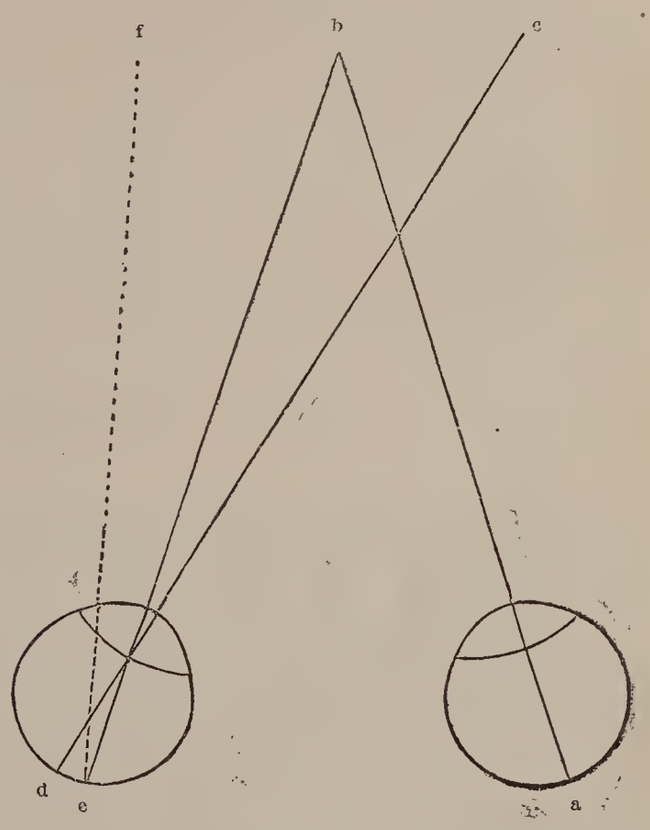
"We meet with two kinds of double images.

"1. *Homonymous* (or direct) diplopia, in which the image to the right of the patient belongs to his right eye, the left image to the left eye.

"2. *Crossed* double images, in which case the image to the right of the patient belongs to his left eye, that on his left to his right eye.

"Homonymous diplopia is always produced (except in incongruence of the retinæ) in convergent squint, for if the eye deviates inwards from the object, the rays coming from the latter will fall upon the inner portion of the retina, and the image will (in accordance with the laws of projection) be projected outwards, as in Fig. 1.

Fig. 1.



"Let I. be the right eye, whose optic axis (a b) is fixed upon the object (b). II. The left eye, whose optic axis (c d) deviates inwards from the object, the rays from b therefore fall upon e, a portion of the retina internal to the macula lutea (d), and the image is consequently projected outwards to f; b and f are therefore homonymous double images, the image b, which is to the right of the patient, belonging to his right eye, the image f to his left eye.

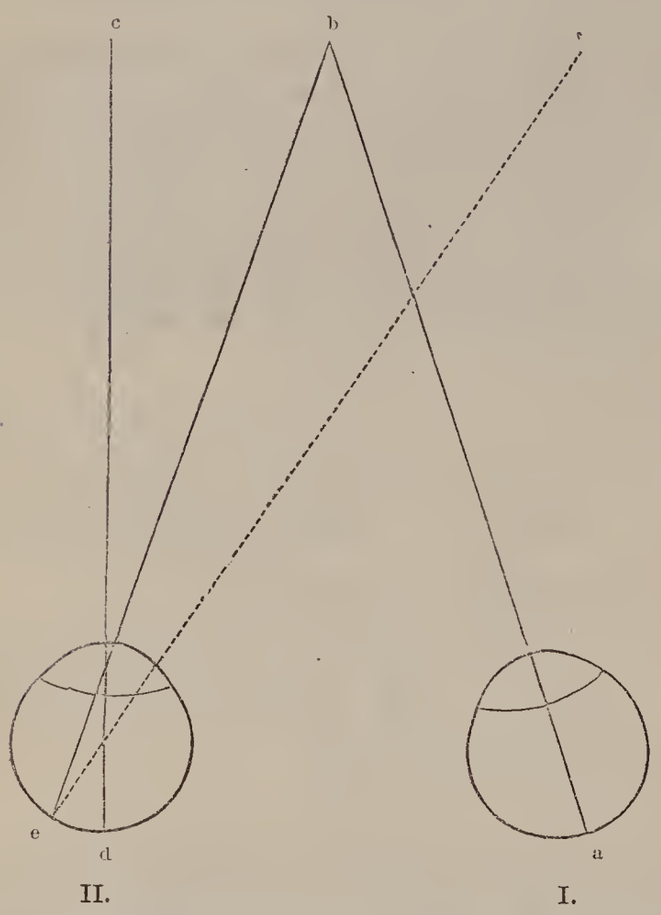
"Crossed double images arise in divergent squint; for the one eye deviating outwards from the object, the rays from the latter fall upon a portion of the retina external to the macula lutea; the image is projected inwards, and crosses that of the other eye, as in Fig. 2.

"I. The right eye, whose optic axis is fixed upon the object (b). II. The left eye, whose optic axis (c d) deviates outwards from the object; the rays from the latter, therefore, fall upon e, a portion of the retina external to the macula lutea (d), and the image is projected to f, crossing the image b; the image f, which would lie on the patient's right hand, would therefore belong to his left eye, the image b, which would lie on his left side, to the right eye."

Although these are the two principal forms of diplopia, we meet with double images, which not only present a lateral difference, but also one in height, thus—if one eye squints upwards, the rays will fall upon the upper portion of the retina, and the image be projected *beneath* that of the healthy eye. The reverse will be the case if the eye squints downwards, for then the rays fall upon the lower portion of the

retina, and the image will be projected *above* that of the healthy eye. According to the muscle implicated, there will

Fig. 2.



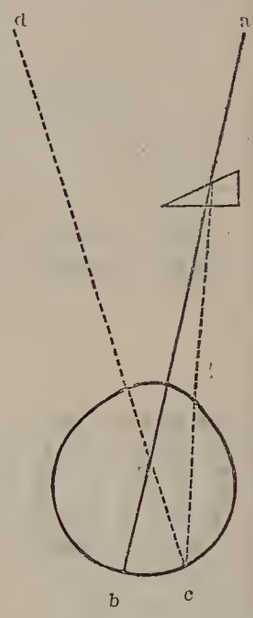
be, together with this difference in the altitude of the double images, homonymous or crossed diplopia, the double images showing also, in certain directions, a tendency to slant on account of the alteration in the vertical meridian.

We should always ascertain whether the diplopia is monocular or binocular; if it is the latter, it will, of course, disappear upon the closure of either eye. For the purpose of testing the double images, the best object is a lighted candle, which should be held at a distance of about eight feet from the patient, and then be moved about in various directions, so that we may ascertain the positions assumed by the double images with every movement of the object. A slip of red glass should be placed before the sound eye, in order, not only to enable the patient to distinguish the two images by their colour, but also to weaken the intensity of the image of this eye, and approximate it more to that of the affected one, whose image, owing to the rays from the object falling upon an eccentric portion of the retina, will be less intense in proportion to the distance of the spot upon which the rays fall from the yellow spot.

Let us now glance at the action of prisms.

"When a ray of light falls upon a prism, it is refracted towards its base. If, for instance, whilst we look at an object (*e.g.*, a lighted candle) at eight feet distance with both eyes, a prism, with its base towards the nose, is placed before the left eye, the rays from the candle will be deflected towards the base of the prism, and fall upon a portion of the retina internal to the yellow spot, and be consequently projected outwards, giving rise to homonymous diplopia. As we are, however, very susceptible of double images, the eye will endeavour to unite them by an outward movement (its external rectus becoming contracted), which will again bring the rays upon the yellow spot, but at the same time, of course, cause a divergent squint. Fig. 3 will explain this. Let a b be the optic axis of the left eye fixed (with the other) upon a candle eight feet off. Now, if a prism (with its base towards the nose) be placed before it, the rays are refracted towards the base of the prism, and do not, as in the other eye, fall upon the yellow spot, but on a portion of the retina (c) internal to the latter, and the image is projected outwards to d; homonymous diplopia therefore arises, and to avoid this the external rectus muscle contracts and moves the eye outwards, so as to bring the macula lutea (b) to that spot (c) to which the rays are deflected by the prism. As the rays from the object will now fall in both eyes upon the macula lutea, single vision will result, accompanied, of course, by a divergent squint of the left eye.

Fig. 3.



"The reverse will occur if we turn the prism with its base to the temple, for then the rays will be deflected to a portion of the retina to the outer side of the macula lutea, and the image will be projected inwards across that of the right eye, and crossed diplopia will be the result. In order to remedy this, the internal rectus will contract and move the eye inwards, so as to bring the macula lutea to that spot to which the rays are deflected by the prism. There will consequently be a convergent squint.

"As the internal recti muscles are far more constantly used than the external, they gain a greater degree of strength than the latter, and can overcome far stronger prisms by a voluntary inward squint. In a normal eye the internal rectus can generally overcome a prism of 14°, whereas the external rectus cannot, generally, overcome a stronger one than 5° to 6°."

You will find the use of prismatic glasses of great value in ophthalmic practice, for they not only enable us to free a patient from the annoyance of diplopia, to exercise and strengthen a partially paralysed or insufficient muscle, but also to ascertain whether or not a person enjoys binocular vision (Gemeinschaftlicher Sehaet), *i.e.*, sees with both eyes at the same time,—a fact which is of great importance with regard to our prognosis of the result of an operation for squint. If binocular vision exists we may guarantee a perfect cure, without it we can but promise an approximative one; for in the latter case there will not, of course, be any diplopia, and the perfect cure of squint depends, as we shall show hereafter, upon the presence of double images.

We should, therefore, in all cases of squint carefully ascertain whether there is binocular vision or not. Its presence is of course at once proved by binocular diplopia, for this cannot exist if the person only sees with one eye at a time. A person may see perfectly with either eye singly, or when both are open there may be no deviation of either optic axis, and yet he may not see with both eyes at the same time. In the majority of cases of squint, particularly if the affection has existed for some time, there is no binocular vision, the one image being suppressed, and there is consequently no diplopia; the sight of the squinting eye is generally considerably impaired; occasionally, however, it is almost or even quite normal.

We may readily ascertain whether or not a person enjoys binocular vision by simply placing a prism before one eye. We should first, however, examine each eye separately, so that its degree of vision, range of accommodation, and state of refraction may be accurately ascertained, notice being also taken whether its optic axis is fixed upon the object, or whether it "fixes" the latter with an eccentric portion of the retina and not with the macula lutea. The patient being ordered to look (with both eyes open) at a lighted candle placed at a distance of 6 to 8 feet, a prism with its base outwards is to be placed before one eye.

Let us now suppose it held before the left eye,—one of three things will occur:—

1. *Diplopia.*—The rays from the object will be deflected by the prism towards its base, and will consequently impinge upon a portion of the retina external to the macula lutea, and be, therefore, projected inwards, giving rise to crossed double images.

2. *Corrective Squint.*—Now, if the prism be not too strong, the left eye will, in order to overcome the annoyance of the diplopia, squint inwards, thus bringing the deflected rays once more upon the yellow spot, and uniting the double images. We may, therefore, be certain that binocular vision exists, if, on holding a prism before one eye, diplopia or a corrective squint arises. If the base of the prism were turned outwards, the squint would be convergent, if inwards, divergent.

3. But the prism may have no effect whatever; it neither gives rise to diplopia nor to a squint, indeed the eye does not move at all. This proves at once the absence of binocular vision, and shows, moreover, that the prism has been held before the eye which the patient does not use (although its sight may be perfect), for if we place it, still with its base outwards, before the other eye, the latter will move inwards, in order to bring the deflected rays once more upon the macula lutea, the other eye making at the same time an *associated* movement outwards, so that, although the one eye moves inwards, there will be no corrective squint, the other eye counterbalancing the inward by an associated outward movement. The eye, which when a prism is interposed, moves towards the refracting angle of the latter, is the one commonly used, whereas the other eye which makes an associated movement, is the one excluded from binocular vision.

Frequently binocular vision is lost only in certain portions of the retina, particularly in those which, though not identical with, are constantly excited simultaneously with the central portion of the retina of the other eye.

Thus in convergent squint we find that, in the squinting eye, the portion of the retina which lies internal to the yellow spot is the first to suffer a loss of binocular vision, for it is directed towards the object, and is therefore (though not identical with it) constantly excited simultaneously with the central portion of the retina of the other eye, which is fixed upon the object. The reverse occurs in divergent squint, for there the external portion of the retina is the first to fail. At first this loss of binocular vision extends horizontally only, so that if we turn a prism with its base upwards or downwards (or place it even in a diagonal position), we at once produce double images, which show not only a difference in height, but also, if there is any squint, a lateral difference. We may thus determine, with the greatest nicety, which part of the retina has lost the power of binocular vision. Sometimes it extends over the whole retina, so that we fail to produce diplopia even with the strongest prisms turned in any direction; at others this loss of binocular vision is tolerably circumscribed, being confined to a very small portion of the retina; in convergent strabismus, for instance, only a small portion of the retina internal to the yellow spot may have suffered, so that on placing a prism, with its base towards the nose, before this eye, and deflecting the rays still more inwards, double images are at once produced, although the deflected rays now impinge upon a more eccentric, and, naturally, less sensitive portion of the retina. Occasionally we may in such a case also produce diplopia, if we, by means of a prism, bring the rays nearer to the macula lutea. Thus, through a sudden alteration of the position of the optic axis of the affected eye, diplopia may be at once induced; as, for instance, after the operation for squint, or in cases of paralysis or spasm of the other muscles of the eyeball.

(To be continued.)

ORIGINAL COMMUNICATIONS.

NOTES ON CAUSES OF MORTALITY.

By J. WHITEHEAD, M.D.

No. I.

In pondering the tables of a Registrar-General's Report, the student will not fail to perceive, among the figures which represent the progressive stages of the population movement, certain striking fluctuations in some of the results affecting the two sexes at different periods of life, which, on superficial examination, might possibly be attributed, if not to error in calculation, to some fortuitous irregularity. When it is found, however, on averaging and comparing these varying results with their correlatives of previous years, that the deviations have continued to hold a nearly parallel relation throughout a long series of successive repetitions, there need be little doubt that such events will prove to have been controlled by some physiological agency, whose force and value may not perhaps be beyond the scope of approximate estimation.

Thus, the notable disparity observable in the rate of mortality of the male and female sex respectively during a term of years comprising the most active period of middle life,—from the age of 15 to 35,—and its orderly and almost unvarying recurrence, infers the existence throughout this period of some morbific power in constant operation upon one of them which does not in an equal degree influence at the same time the other.

During this term of twenty years the male subject enjoys a larger measure of robust health and intellectual vigour, and a less susceptibility to disease than in any other stage of life; and were it not for the casualties to which most men are exposed in their various and often hazardous vocations,—as the soldier in times of war, the seafaring man at all seasons, some classes of artizans, and those also engaged in mining, excavating, and other employments equally liable to unforeseen calamities,—the value of life in the male sex from the age of 15 to 35 would stand comparatively high.

Conversely, the female system throughout the same series of years is pre-eminently susceptible of morbid action. In the highest degree impressionable to external influences by reason of the active performance and periodical repetition of functions which are altogether peculiar, its organism experiences an ever recurring condition which, even under the healthiest and most favourable circumstances, places it for a time on the confines of disease. At these particular seasons the most trivial indiscretion—error in diet, undue exposure to the elements, the simple act of ablution incautiously done, or an emotional paroxysm—any of which the male, although delicate, would be able to encounter with impunity, is sufficient so to unbalance the nervous and circulatory systems as to induce either acute disease of grave character, or to lay the foundation for organic depravation, which, under a variety of forms of daily frequency, may prove disastrous in the issue.

Untimely arrest of this periodical emunction is often the precursor of a series of phenomena not seldom of great moment, commencing with the instantaneous conversion of a healthy turgescence into a morbid congestion—a condition which, if not invariably followed by inflammatory mischief, yet not the less most frequently precedes it. Nor are the evil effects of such disturbance always limited to the organs immediately concerned. More frequently, indeed, are they inflicted upon some remote viscus or region of the body, where their operation may be acute and speedily determined, or haply destined to effect their maleficent influence by a chronic process of structural degeneration. Other forms of this class of disturbances eminently fruitful in the creation of lasting and often fatal maladies are also common, but which it would be premature in this place to specify.

The average proportion of deaths of the two sexes relatively, from the age of fifteen to thirty-five, in England, is upwards of 115 females to 100 males,—the disparity being somewhat greater in the latter than the first half of this term. On demanding the cause of this excess of female mortality, the mind will probably revert, and very naturally so, to the perils of child-bearing. Nor would it be difficult to obtain ready acceptance of any statement to the effect that child-bed accidents are alone concerned in the creation of the disparity in question. Such an assumption, however, would be very far from the truth; for the item representing the sum of fatal events of this class, as registered,—including deaths in child-bed and the other associated and consequent fatalities comprised in the term "metria,"—does not go to augment the per-centage, for the term of years specified, beyond the value of ·09. Moreover, a much higher death-rate is to be found during the first quatrain of the said period, before child-bearing has fairly commenced in this country, than during the second. The chief morbific agencies must therefore be sought elsewhere, and the diseases produced by them will be found bearing very different characters from those immediately consequent upon the child-bearing process.

It is an established fact, however, that in the face of this preponderating mortality of females during the period mentioned, and notwithstanding that the number of male births considerably, and with but very little variation, exceeds that of females, the female is constantly in excess of the male element of the population living at any given time. It is evident, therefore, that the uncertainty of male life must be pre-eminently great at some other period or periods, and also that this implied uncertainty must, in the main, be due to natural causes; seeing that accidental fatality in the male subject occurs chiefly during the period of life in question, when its rate of mortality, including deaths from all causes, is strikingly low. A cursory glance at the relative numbers of the sexes under the two conditions alluded to,—namely, of those composing the existing population, and the propor-

tion of males and females at birth, may not be deemed inappropriate.

OF THE EXISTING POPULATION.—PROPORTIONS OF THE SEXES.

The results of statistical inquiries into the condition of the people inhabiting this quarter of the globe, during the last sixty or eighty years, have revealed the fact, that the numerical relations of the male and female sex stand in unequal proportion to each other, and that the excess is constantly on one and the same side. For the aggregate of the several European populations, systematically investigated, the results have been nearly the same, according to the different censuses, since the commencement of the present century. In the several constituent communities, however, deviations in one or other direction are constantly observable, the disparity lessening in one state and becoming wider in another, although, apparently, in a compensatory sense merely, as the general issue has continued to be almost unvarying.

In one state only, and that very insignificant as to numbers, has the male element been found in excess of the female,—a circumstance sufficiently accounted for by an unusual immigration of males during a season of political agitation in the neighbouring States.

The aggregate population of central Europe, comprising France, the Germanic Confederation, Norway, Sweden, Belgium, and the Netherlands, amounted, in 1842, to somewhat more than 101 millions, of which number 49,874,097 were males, and 51,296,858 females, giving an average proportion of 102·8 females to 100 males. For Russia, however, the disparity is considerably lower. With a population, in 1842, of 49½ millions, the proportion of the sexes stood at 101·2 females to 100 males. This lower estimate may appear singular when it is taken into consideration, that the proportion of male as compared with female births in Russia was, in that year, and seems to be so generally, far higher than in any other European country. The circumstance may possibly be accounted for on the supposition, that the mortality of adult women in Russia is more or less augmented by the hardships to which the female portion of the serf population are said to be exposed in their maternal trials, and the laborious employments in which they participate with the men. Taking these two groups together, comprising a population of 151 millions (in 1842), the average proportion stood at 102 females to 100 males.

For the following principal states taken together, Portugal, France, England, Belgium, Switzerland, Prussia, Austria, Saxony, Würtemberg, Bavaria, Hanover, Denmark, Sweden, and Norway, the mean relative average of the two sexes in 1851 was 101·57 females to 100 males. The extreme variation, amounting to 6·87, was represented by Prussia (the lowest), where it stood at 100·12, and Sweden (the highest), 106·99 to 100 respectively: the numerical superiority of the female sex being lower in Prussia and higher in Sweden than in any other of the countries above enumerated. The only European State wherein the male exceeded the female element was Sardinia (Piedmont included), the proportion being 99·04 females to 100 males. That this assumed predominance of the male sex is not attributable to any error in the operations, is proved by the fact that the same results accrued in two successive recensions; neither is it due to any exceptional excess of male births, nor yet to a high rate of female mortality. The phenomenon seems to be reasonably attributable to an inordinate influx of males into the Sardinian States during the preceding few years.(a)

These fluctuations are materially affected by a number of influences to which all communities are more or less exposed, such as external political relations sometimes necessitating the rapid absorption of men into the military and naval services, the extent of the emigration movement, the prevalence of epidemics, and other causes. But neither of these agencies can have operated in the production of the notable change of relations which has taken place in the French population during the first half of the present century—or more strictly speaking, during the thirty years ending with 1851. For, although the military drain in that period has perhaps been greater in France than in any other European country in the same space of time, and with the emigration movement, which always engages more largely the male than the female, somewhat on the increase; yet has the female element been steadily, though slowly, decreasing from the beginning of the century, with the exception of a temporary rise in 1821, to the publication of the Report for 1851, as follows:—

To 100 *Males.*

1801 . .	105·46 females.	1836 . .	104·08 females.
1806 . .	103·33 ,,	1841 . .	102·51 ,,
1821 . .	105·99 ,,	1846 . .	101·83 ,,
1831 . .	104·23 ,,	1851 . .	101·20 ,,

While the variations for large communities, however, exhibit only a trifling range from one recensional epoch to another; those for their several component groups or departments when compared with each other, or each with its correlative issue in different years, become both unsteady and wide—increasing with the lessening of the members operated upon, though still, as a rule, with marked regularity. The different Governments of the Russian Empire, however, when examined in this way, would seem to be controlled by a law peculiarly their own,—the results being so strikingly devious, in regard to the proportions of the sexes, that one would be tempted to doubt the accuracy of the records were it not that they have the warrant of official authenticity. Witness, for instance, the following statement, transcribed from the elaborate researches of Tegoborski (b):—

To 100 *Males.*

Governments.	Females.	Governments.	Females.
Nowgorod . .	114·7	Archangel . .	108·4
Wladimir . .	114·5	Olonetz . .	108·2
Nijni-Nowgorod .	111·7	Orel . . .	106·9
Kostroma . .	111·3	Tschernigow .	107·1
Wolhynia . .	111·0	Kazan. . .	105·8
Wologda . .	110·1	Kowno . .	105·5
Courlande . .	109·8	Esthonia . .	105·5
Livonia . .	109·3		

In the following Governments the proportions are reversed—the males exceeding the females to an extent little less remarkable.

To 100 *Females.*

Governments.	Males.	Governments.	Males.
St. Petersburg .	139·2	Astrakhan . ,	109·3
Taurida . . .	112·6	Moscow . .	107·4
Bessarabia . .	110·4	Kherson . . .	106·4

In the Governments of Siberia and the Transcaucasian provinces, according to Kaeppen, the proportions are 102·5 to 100; and for the Kingdom of Poland in 1851, 105·8 females to 100 males respectively.

Tegoborski truly remarks that such irregularities as the preceding, in the numerical relations of the sexes, do not occur in any other country. They are accounted for in Russia, in his opinion, by the habits of the people,—the frequent displacement (migration), namely, of the male portion of the population engaged in commercial pursuits, or in search of occupation, while the females remain stationary. In other countries migration implies the removal of entire families; whereas in the present instance it is intended to refer to temporary absence from home of one or more members of a family, and these always the males. Such displacement seems to be a periodical occurrence, and often on so large a scale as to affect very sensibly, sometimes to an extreme degree, the proportions of the two elements. It is stated by Haxthausen (c) that the town of Rybinsk, in summer (probably on the occasion of its annual fair), contains a population of 130,000, of whom only 2500 are females. This number, however, cannot be taken to represent the whole of its female inhabitants of all ages, as Rybinsk contains a permanent population of from 12,000 to 15,000 souls.

The town population of Russia, however, consists of a considerable preponderance of males over females at all seasons; for, in the year 1850, of the sum of inhabitants of all the towns of Russia, amounting to 5,400,000, there were 356,300 more males than females, being in the proportion of 117 to 100. This excess on the male side varies in different towns, influenced apparently, in some degree, by the amount of population. St. Peterburg, for instance, in 1851 contained 592,000 inhabitants. Of this number 396,000 were males, yielding a proportion of 67 to 33, or 203 males to 100 females. In Moscow, also, of a population numbering 393,000, there were 241,300 belonging to the male sex, giving a proportion of 161 to 100. And so for towns of smaller size, the disparity lessening with the diminution of the aggregate of inhabitants. The towns of Poland, however, as also those of the Duchy of

(a) "Dictionnaire de l'Econ. Pol.," art. "Population."

(b) "Etudes sur les Forces Productives de la Russia." Par M. L. de Tegoborski. T. i. ch. iv. Paris: 1854.

(c) "Etudes sur la Situation Interieure, la Vie Nationale, etc., de la Russia." Par le Baron Auguste de Haxthausen. 1853.

Finland, present relations the reverse of the preceding; the proportions being for the former 104, and for the latter 117 females to 100 males respectively. (d)

In the large towns and densely-peopled districts of France and England, as well also those of Austria, Prussia, etc., with a few exceptions, the numerical superiority of the female sex seems to be the rule. For, although the contrary obtains in the principal towns of Russia, and the same to a trifling degree in Berlin and Rome, the female preponderates in Naples, Florence, Brussels, Vienna, Paris, London, and Stockholm. Marseilles has an excess of the male element; but at Lyons, Bordeaux, Lille, and Rouen, the general rule prevails. These differences are due to purely local circumstances, amongst which may be mentioned certain branches of trade employing much more largely the male than the female, and *vice versâ;* public establishments for the education of males; the erection of extensive public works; considerable military garrisons, etc.(a) Another cause of disproportion may be found in the influx of females into large towns from the agricultural districts in search of domestic and other kinds of employment; while a principal reason of the extraordinary male preponderance in St. Petersburg and Moscow is manifestly owing to the custom which prevails among all ranks of society in Russia, of employing males exclusively as domestic servants. The rigour of the climate, moreover, prevents the migration of any but males, except during the brief months of summer.

Of the numerical predominance of the female sex, however, among the dense, as compared with the sparsely disposed, masses of Central Europe there can be no doubt. For example:—The mean average proportions of the Austrian population are 104·50 females to 100 males; but for Austria Proper, containing Vienna and other large towns and districts, densely peopled in comparison of the rest of the Empire, they stand at 108·12 to 100. And for Paris, for the forty years ending with 1856, the female element is represented by 102·88, while that for the whole of France stands at 101·08 in 1851, and 102·10 in 1856.(f)

In illustration of the extent to which the distribution of the sexes may be influenced by the nature of employment, three of the arrondissements of Paris may be contrasted with three others, each group differing widely from the other in regard to their respective industries. In the first, second, and tenth arrondissements, containing the quartiers Roule, Champs-Elysées, Vendôme, Tuileries, Palais-Royal, Chaussée-d'Antin, St. Germain, and others, in which are situated the principal hotels, both public and private, as well as numerous establishments in which females are largely employed, the population in 1856,—exclusive of inmates of Hospitals, educational and religious establishments, and prisons,—was 358,306, of whom the females were in the proportion of 118 to 100 males; while in the eighth, ninth, and twelfth, in which the industries engage chiefly males, and possessing an aggregate population of 307,961, the females averaged only 92·5 to 100 males.(g)

Provinces.	Population.	Females to 100 Males.
Silesia (Breslau, Oppeln, Liegnitz)	2,827,317	106·32
Saxony (Magdeburg, Meresburg, Erfurth)	1,613,669	103·13
East Prussia (Königsberg, Gumbinnen)	1,382,605	101·88
Posen (Posen, Bromberg)	1,223,095	101·86
Brandenberg (Berlin, Potsdam, Frankfurt, Spa)	1,809,483	101·54
Pomerania (Stettin, Köslin, Stralsund)	1,038,497	101·21
Prussia Proper	2,286,169	101·08
West Prussia (Dantzic, Marienwerder)	903,564	99·87
Rhine (Cologne, Dusseldorf, Coblentz, Treves, Aix-la-Chapelle)	2,550,482	99·47
Westphalia (Münster, Minden, Arensberg)	1,374,542	99 35
	17,009,423	Mean 101·52

(d) Tegoborski.

(e) Legoyt. "Dict. de l'Econ. Pol," art. "Population."

(f) "Statistique de la France," vol. ii.

(g) Recherches Statistiques sur la Ville de Paris et le Département de la Seine, d'apres les ordres du Baron Haussmann, Préfet du Département. 1860.

The preceding table represents the average relations of the sexes in the Kingdom of Prussia in 1840, arranged in the order of excess.

Since the publication of the Report from which the preceding table is compiled, the numerical disparity between the sexes in the Kingdom of Prussia has continued to diminish, the relations being in 1856, 100·4 females to 100 males. This change, however, being nearly equally participated by the several provinces, does not materially alter the results as already stated.

In the following table, representing the relations of the sexes from the several registration divisions of England, ranged in the order of excess, the same tendency (that of a higher female preponderance, namely, as a condition of agglomeration) is also observable:—

To 100 *Males.*

Divisions.	Females.
London	113·60
South-Western	108·15
North-Western	104·44
Northern	104·36
Eastern	104·29
Western	102·93
South-Midland	102·50
South-Eastern	102·27
North-Midland	102·01
York	101·86
Welsh	101·77
Mean	104·40

In reference to the question now under consideration, two items in the preceding table seem to require a word of explanation. First, the high figure (108·15) which represents the proportion of females in the South-Western division (chiefly agricultural), would appear to stand in contradiction of the rule assumed. But this apparent anomaly may possibly be accounted for by the fact, that the South-Western district contains a considerable number of places resorted to by invalids and retired families, all employing a large amount of female service. Such localities are to be found on the coasts of Dorsetshire, Devonshire, Cornwall, and Somersetshire, sought by multitudes from all quarters on account of the mildness of the climate and salubrity of the atmosphere; as well also as Bath and other inland places in no trifling degree dependent, commercially speaking, upon the presence of strangers of the class mentioned. In the second place, the York division (largely engaged in manufacturing processes), on account of the low item (1·86) representing the preponderance of its female element, may also be objected to. But the densely crowded part of Yorkshire is limited to a portion of the West Riding, while the rest of this extensive county is chiefly agricultural. Were the relations of the sexes for Leeds, Bradford, Sheffield, Halifax, and Huddersfield, with the adjacent and intermediate towns of smaller size to be ascertained, it is probable they would present a striking contrast with those of the rest of the division.

The actual relative proportion of the sexes of the five principal countries of Europe in 1856, after Tegoborski,(h) stand as follows:—

Countries.	Population.	Females to 100 Males.
Austria	38,000,000	104·5
Prussia	16,000,000	100·4
France	36,000,000	102·1
Russia	68,000,000(h)	102·1
England	27,000,000	104·9(i)
Aggregate population	185,000,000	Mean 102·8

(h) This author's estimate of the Russian population is thus stated:—Russia in Europe, 61,969,000; Asiatic Russia, 4,962,000; Russian America, 60,000; Army and Navy, 1,009,000 = 68,000,000.

(i) This quotation refers to the population of England and Wales only. For the United Kingdom, the disparity is somewhat wider, being influenced by the high preponderance of females in Scotland—111·5, and the still higher figure for the British Isles,—the Channel Islands and Isle of Man, represented by 117 females to 100 males. The Irish records are very similar to those for England. It appears that the female element in the United Kingdom, the British Isles included, has steadily increased from the commencement of the present century at about the same rate as that of France has decreased. At the last three censuses they stood as follows:—1841, 104·9; 1851, 105·1; 1861, 106·2.—*Companion to the Almanac*, 1862.

DIPHTHERIA IN ITS CONCENTRATED SEVERITY AND VARIETY.

By WILLIAM COOKE, M.D.

Whether this formidable disease be regarded as having some analogy to the malignant angina, which sometimes ensues from inflammation of the fauces with fever of a low type, or to the malignant angina of scarlatina, or to cynanche laryngea, with a copious croupy exudation, the group of cases about to be related will show that, notwithstanding some features of resemblance, the disease is quite distinct from either.

In the course of long and active practice, I have examined after death many cases of croup, and also the throat in persons who had died of scarlatina maligna; but there was a marked difference in the morbid appearances in those cases and in these to be related. The first case, it is true, ended in croup; but it was croup as a secondary disease, owing to the extension of the primary into the trachea.

Some advantages arise from seeing cases of serious disease in groups, and in this group we have diphtheria affecting different ages, and showing itself so fearfully dangerous, and so actively infectious, that every person not indispensable to the invalid should be carefully excluded from the chamber in which the sick lie, if not from the house.

Whenever the human health and life are endangered by disease that assumes a somewhat new form, it immediately awakens zealous, enlightened, and benevolent investigation by those who professionally are the guardians of the public health. Very excellent Treatises have been written on the disease in question, and the volume of the New Sydenham Society, the translation of the Memoirs of Bretonneau and others, on this "Pellicular Inflammation," this "Malignant Angina," is extremely valuable.

Case 1.—On Friday, March 7, I was requested to see Master D., aged six and a-half years. He was a pupil at a day-school near London, and coming home, and complaining of his throat, it was mentioned that one or two of his schoolfellows had similarly suffered. He had been ill since Monday, and his father, supposing it to be a common cold, had requested the visit of a neighbouring Surgeon, who, on two or three occasions, had touched the affected parts with nitrate of silver. The illness had daily increased, and, being the usual Medical attendant of the family, I was called in on the Friday. The uvula was much swollen, and there was a circular eschar on it from the last application of the caustic. The tonsils were swollen, and they, as well as the sides of the uvula, were covered by a pretty thick layer of a greasy-looking whitish secretion. The breath was offensive. There was huskiness of respiration, and some dyspnœa. The fever was mild; pulse not very quick; tongue slightly furred; head clear. The treatment prescribed was the liquor ammoniæ acet. with a small excess of ammonia, and also a grain of calomel; linseed meal and mustard poultice to the throat. For diet, broth or beef-tea, and any preparation of milk.

8th.—The huskiness had increased; the cough was croupy, with much difficulty in raising the tenacious secretion; the uvula was less, but the swelling about the larynx was very great; the epiglottis was so rigid and erect that its point stood half-way up the uvula, and having become of a dark colour, conveyed, amidst the confused parts, the appearance of a slough of the uvula. In relation to the croup, calomel in small doses was repeated every four or five hours, some tinct. aurantii was added to the mixture, and a little sherry with water was allowed.

9th.—The general aspect was not worse. Fever still slight; neither headache nor confusion. The cough was distressing, had the croupy sound, and a large quantity of ropy mucus was ejected; but it speedily collected again. The uvula and tonsils were somewhat cleared of the peculiar secretion already described. The respiration was stridulous through a considerable extent of the air passages. The fauces did not appear to be so much swollen; they were well mopped first with water and then with the solution of nitrate of silver. Medical and dietetic means continued.

10th.—The obstruction in the trachea and larynx had increased, and suffocation was impending. He died at noon.

The question of tracheotomy was not altogether overlooked, but viewing the disease as not wholly confined to the larynx and trachea, which an operation might relieve, it seemed to forbid that sanguine hope of benefit which would avail with the parents in opposition to the objection raised to the operation. Still, reviewing the case after the post-mortem examination, I think the operation should have been urged.

Autopsy, made on the day after death.—In the rima glottidis and sacculi laryngis there was much false membrane; it also extended some distance into the trachea. The lining membrane presented a dull red appearance; the epiglottis was much inflamed, and remarkably rigid; the tonsils and uvula were less swollen than they had been; the lungs generally did not appear diseased, except that the air-passages were rather loaded with mucus.

Case 2.—The mother,—nearly 50 years of age, and a rather delicate person, who had brought up a numerous family, had been very attentive to the boy, who clung much to her,—was seized with soreness of throat on Tuesday, the 11th. The tonsils were much swollen; the uvula was large, not merely elongated, but spread in width, and all were covered by a similar secretion to that described in the preceding case. A large quantity of mucus was coughed or hawked up, and sometimes it was bloody. The tongue was coated, and there was considerable fever. The breath was fetid. The treatment prescribed was, liq. ammon. acet. with excess of ammonia, and tincture of orange-peel; beef-tea, wine-and-water, and preparations of milk. Much sordes was cleared away by first mopping the throat with water, and then applying solution of nitrate of silver. In the course of the day a gargle with hydrochlorie acid was used, and both these means afforded considerable relief. A poultice of linseed-meal and mustard was applied to the throat.

On the 12th she coughed up a solid piece of hardened mucus, or false membrane, as large as the first joint of the finger. The voice was very feeble; in a day or two she could only speak in a low whisper. The aphonia continued for many days. By the 15th the fever had subsided, and decoction of bark was added to the mixture. There was also an increased allowance of wine. In two or three days she took quinine. Occasionally the throat was mopped with hydrochloric acid; but she appeared to find most relief from the local treatment adopted from the first, viz., once in the day clearing the sordes by mopping with water, and then by applying the solution of nitrate of silver,—using repeatedly in the day a gargle containing some hydrochlorie acid. During many days she spat a large quantity of viscid stringy matter, sometimes in hard lumps. The recovery was slow. At one period she had an extraordinary sense of abdominal exhaustion, feeling as if she were on the point of death. Brandy and ammonia, in a few days, overcame this nervous feeling. When sufficiently well to attempt to move about, her lower limbs appeared to be almost paralysed, and the recovery of muscular power was very slow.

Case 3.—On the day after the mother's seizure, viz., Wednesday, the 12th, the daughter, Bessy, aged 14, was attacked acutely. The throat rapidly swelled; the tonsils and uvula became greatly enlarged, although not to such a degree as in the mother. The whole of the fauces was covered with a similar exudation to that already described. The breath was very fetid. There was an occasional sense of suffocation, and a very large quantity of ropy mucus was spat up. There was drowsiness, and the pulse was very quick and feeble.

Beginning with the treatment adopted in the commencement of the preceding case, the symptoms did not abate. There was great prostration, and wine was given more freely. On the 13th and 14th there was much affection of the trachea, although not amounting to croup; the bronchial tubes partook of the affection, and that increased the dyspnœa. Enormous quantities of ropy mucus, with shreds of false membrane, were ejected. The swelling of the fauces, with the difficulty of swallowing, continued; but, by determined efforts, she took port wine and beef-tea freely. She remained clear in head, and during the 15th and 16th very perseveringly yielded herself to all the local and general means suggested for her. The local means consisted of the mopping, as described, and the use of a stimulating gargle, and from both which she found much comfort, not only by their removing the deposit about the fauces, but from the larynx also. Stimulating poultices were applied externally. The general means were beef-tea, wine, and quinine, with such variations as were occasionally required. The bowels were kept open.

On the 17th it was evident the powers of life were sinking, and with the accumulated illnesses of the family I felt the responsibility too great to bear alone. It was somewhat

reluctantly conceded to me to have the advantage of a coadjutor, and with the permission of the father I requested the counsel of Dr. Bennett. Paying our united visit in the afternoon we found this poor girl dying. She was still sensible, and very composed in the prospect of death, as she had not left preparation for that event to the season of its approach. It was curious to observe that whilst the pulsations of the radial arteries were scarcely perceptible, the carotids were visibly pulsating with vehemence. She died in the evening.

I was desirous of making a post-mortem examination, but the family objected lest it should give some increased intensity to infection. It was very remarkable how speedily after death the body underwent decomposition, filling the house with a very ill odour on the day after the decease.

Case 4.—Sarah, an older sister, aged 16, was at this time (the 17th) passing through the disease, but in a less acute form. The tonsils and uvula were swollen, and the swelling extended to the larynx. These parts were all covered by the pellicular sordes. Three or four days had elapsed since the first symptoms arose, and she was not so severely affected as others had been at that period. She was much alarmed about herself, but she did not yield to the depression; on the contrary, endeavoured to brave her feelings. She enjoyed her medicine, as she thought it cleared her throat and revived her. She liked wine-and-water and beef-tea, and also her gargle and poultices. Dr. Bennett suggested that once in twenty-four hours the throat should be lightly touched with hydrochloric acid, continuing the gargle. He advised that to each, with the quinine, hydrochloric acid and chlorate of potash should be given in the following form:—℞. Quinæ sulph. gr. ix., acid hydrochlor. dil. ʒj., potassæ chlor. ʒjss., syr. ʒij., aquæ ad ʒvj. capiat sextam partem 4tis, vel 6tis hôris.

The mother was so much better that, although one application of the hydrochloric acid was made to the throat, she preferred that which had previously been used, and it was not considered expedient to urge a change. After taking the mixture during two days she complained that it produced exceedingly unpleasant sensations, not merely in the throat, but generally, each dose being followed by a sense of faintness. The dose of the salt was lessened, and the effect was not so disagreeable. Sarah did not complain of the medicine, except for its nauseousness.

Julia, a lively young girl, about 8 or 9 years of age, was at this time slightly affected. There was the diphtheritic inflammation and deposit, but in a mild degree, and the tonsils and uvula were but slightly enlarged. She braved the soreness of the throat, and what she called the "nauseous medicine." She liked wine-and-water; had her throat mopped, and used gargle. In a week she was well, except wanting appetite and strength, which were gradually regained.

Recurring to the case of Sarah: on the 18th and 19th she was rather more feverish and exhausted; but persevered as to liquid nourishments, wine, tonics, and stimulants, and other appliances.

On the 20th, she informed me that in the night she had been nearly choked. Her aunt, who had been most sedulously attending all the invalids, gave her some lemon and sugar, which promoted the bringing up a very large quantity of ropy mucus, by which she was relieved. In the evening she appeared comfortable.

At seven o'clock a.m., on the 21st, I was summoned to her. In the night she had become pale and depressed. Diarrhœa had supervened, the motions being excessively offensive. She still looked pale and breathed quick. The pulse was quick, feeble, and irregular. The water was of high colour. There was much sordes about the throat, extending into the larynx and trachea. She coughed up lumps, and what she called "pieces of skin,"—false membrane. If she swallowed hastily, the fluid came back by the nose. She wandered a little in the night, but was now quite clear and cheerful. I mopped her throat with hydrochloric acid, and gave some beef-tea; prescribing a cordial ammonia mixture, to the first dose of which fifteen drops of tincture of opium were added.

At one o'clock I called again. She had taken two doses of the mixture, and thought herself much better. But the aspect of the face was not satisfactory. The eyes were expressive of decreasing vitality; the breathing was hurried and difficult; pulse feeble and irregular. The quantity of mucus (sometimes tinged with blood) was so large, that a cup to receive it was constantly at hand. Under these circumstances I expressed the expectation of an early termination of life. When I had left she desired her aunt to tell her exactly my opinion. The aunt felt that in such an emergency she could not deceive her niece, and therefore mentioned that little hope was held out. She received the communication with great composure. At half-past five in the afternoon life quietly ceased.

Beyond the three fatal cases, and those of Mrs. D. and Julia, the disease did not extend. The eldest daughter had been little exposed to the danger of infection, but the house being rather small, she was sent away. A few days afterwards, however, she was seized with soreness of the throat. One tonsil was considerably swollen, and was studded with minute white spots, rather more like aphthous deposit than the diphtherous. It was touched with solution of nitrate of silver. An acid gargle was used, and sustaining medicine given. She speedily recovered.

It has been mentioned that the mother's recovery was very slow. Naturally, though not very strong, she had much energy of character. It was about three weeks before she could leave her bed, and about the same period when she regained an audible voice. She was carried down to the drawing-room. The appetite became good. She was taking animal food, wine, and malt liquor; but she was very nervous, easily excited, and complained of tingling in the ends of the fingers.

On April 15 I found her comfortable though still weak, especially the legs. She had been menstruating for a fortnight rather profusely, but having taken quinine and sulphuric acid the discharge was ceasing.

On the 16th she had an alarming seizure of exhaustion; she thought herself dying. Laying her hand on the abdomen, she said, I feel empty here. She had taken good beef-tea, wine, brandy, and porter, and the last-mentioned was the most refreshing. Ammonia and ether in combination with some of Battley's sedative and tonics were given.

On the 17th the attack was passing off. At the end of two months there was still great weakness of the legs, resembling a partial recovery from paralysis. Now she has fully recovered. It is a curious fact that with a very powerful impression on the nervous system the intellectual faculties in all the cases were perfect to the last.

It seemed clear that this breaking up of a happy family originated with the son at school. At a little distance from it, and from the parents' residence, the main drainage was in progress. This had occasioned some alteration in the drains of the houses near. It is difficult, however, to fix upon the precise cause. The house was rather small, though in an open spot. All that could be effected in the way of disinfectants and by ventilation was done. But with such evidence of the intensity of the infection, the virulence of the poison, and the prostrating nature of the disease, the most efficient measures should be promptly adopted to separate the healthy from the affected.

39, Trinity-square.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

(Continued from page 190.)

The following seven cases of craniotomy occurred to me during the last eight months of 1843, and the year 1844:—

Craniotomy.

Case 134.—On May 24, 1843, at 10 a.m., I was sent for by two Medical friends to Mrs. T., Spitalfields, in labour with her first child. The membranes broke fifty-four hours before; the head had partly passed through the pelvic brim, so that the right ear could be felt behind the left thyroid foramen, the face looking towards the right acetabulum. The pelvis was narrow at the brim, not measuring more than three and a quarter inches in its conjugate diameter, if so much, the promontory of the sacrum dipping too forward. The pains had been very strong for many hours, but had now almost ceased; the head had not moved for some hours, and was strongly impacted. There were evident symptoms present of commencing exhaustion. My two friends had each unsuccessfully tried to apply the forceps over the ears; that blade which was adapted anteriorly over the right ear passed up comparatively easily; but they could by no means introduce the second, owing to

the jutting forwards of the sacral promontory; the point impinging against it as against a shelf. Fully agreeing with them as to the necessity of immediate delivery, I introduced my long forceps, a blade within each ilium, and strongly embraced the head antero-posteriorly, or rather over the left brow, and right side of the occiput; but, although I had got so firm a hold, I could make no impression upon it whatever. I therefore perforated and delivered by the crotchet in about twenty minutes. The placenta was soon expelled naturally, and the woman recovered perfectly.

Craniotomy—Head and Foot at Pelvic Brim.

Case 135.—On July 25, 1843, at 3.30 p.m., I was sent for by one of the parish Surgeons to a patient in Wapping Workhouse, in labour of her first child. The membranes broke about twenty hours before, and the uterus had been acting very strongly ever since; yet its mouth was not dilated more than to the size of a crown-piece, and was thick and rigid, while the pelvis in its conjugate diameter at the brim did not possess a greater space than two and a-half inches. The head was entirely above the brim, and the left foot was in the vagina. I passed a piece of wide tape with a running noose easily over the ankle, hoping to make the child revolve, and to extract it feet foremost. But notwithstanding I used as much traction as I thought the leg would bear,—for putrefaction had commenced in the child's body,—I could not succeed in bringing down the breech, partly, perhaps, in consequence of the small size of the pelvis, but chiefly owing to the tonic contraction of the uterus, which had firmly embraced the fœtal body. I therefore perforated the head, and extracted with the crotchet. The operation required much exertion, and occupied fully an hour; the placenta passed naturally. Next day the woman had passed water freely, and was as well as if she had gone through an ordinary labour. She recovered satisfactorily.

Craniotomy.

Case 136.—On October 3, 1843, at 1.30 p.m., a Professional friend called me to Mrs. T., Stepney, in labour of her first child. The membranes broke thirty-six hours before. The uterus had been acting very powerfully, but the pains had nearly ceased through exhaustion. The pulse was quick, the tongue dry, and there was a copious greenish discharge flowing from the vagina. The head was partly protruded through the brim, so that I could just touch an ear, the face being directed to the left thyroid foramen. There was very little more than three inches in the conjugate diameter of the pelvis. My friend had emptied the bladder twice during the morning, and had attempted to deliver by the vectis. I applied the long forceps within each ilium; but from the difficulty which I experienced in locking the blades, I felt sure I should not be able to deliver by its means. I found I could make not the least impression on the head, which was firmly locked. I therefore perforated the skull, and delivered by the crotchet. I was nearly an hour extracting. The placenta passed speedily without hæmorrhage. In twenty-four hours she was seized with hysteritis. This soon subsided under the use of leeches, calomel, and other purgatives, fomentations, and vaginal injections, and she did well. On August 22, 1844, she called on me, being six months pregnant, when I advised that premature labour should be induced at about seven and a-half months.

Craniotomy.

Case 137.—On December 28, 1843, at 3 p.m., I was requested by one of the District Surgeons to the Royal Maternity Charity to see Mrs. P., Spitalfields, in labour of her third child. Both the former had been born alive after very lingering labours. The membranes broke thirty-two hours before; the pains had been strong and frequent ever since; the head was quite above the brim of the pelvis, which measured in the conjugate diameter, as nearly as possible, three inches. The os uteri was not entirely dilated; the uterus was acting, though not vigorously; there was but little distress in the system. The bladder was empty. I desired to be informed at 10 p.m. provided she was still undelivered. I saw her at 10.30, and found the head exactly in the same state. The pains had quite subsided, the pulse was quicker, and the woman generally more depressed. As the cuticle was peeling from the head, and a putrid fœtor was present, I was satisfied that the child was dead. I therefore perforated, and delivered by the crotchet, the operation occupying nearly an hour. The placenta passed soon, and she recovered well.

Craniotomy.

Case 138.—On October 14, 1844, at 4 p.m., a Medical friend sent for me to Mrs. N., Clerkenwell, aged 35, in labour of her second child. The first was born dead, three years ago, after a most severe labour which lasted five days. The membranes broke forty-four hours before; the pains had been feeble and inefficient all along. The pelvis measured in its conjugate diameter at the brim very little more than three inches; the head was entirely above the brim, and the os uteri was thick and soft, not dilated to a greater size than that of a crown-piece, and pinched both anteriorly and posteriorly between the head and the pelvic bones. The pulse was 130; and there was a large quantity of very offensive green discharge flowing from the vagina. I removed above a quart of urine, and saw her again in four hours. I found her then much in the same condition; but the scalp was more tumid. I again introduced the catheter, and took away about a pint of water; and as the cuticle was peeling from the scalp, I perforated without delay, and delivered by the crotchet; the operation occupied nearly an hour. The child's face was directed towards the left groin. The placenta was soon expelled, the uterus contracted perfectly, and she recovered well. She called on me on August 30, 1847, being nearly seven months advanced in pregnancy, and I recommended that premature labour should be brought on towards the end of September.

Puerperal Convulsions—Craniotomy.

Case 139.—On December 26, 1844, at 3.30 p.m., I was requested by a Medical friend to visit Mrs. C., Bucklersbury, aged 37, in labour of her first child. Pains commenced early on the morning before, and she went on well through the day and night. The membranes broke about midnight, and the uterus began to act with much vigour. Still the head remained above the pelvic brim, which was not wider in the conjugate diameter than $3\frac{1}{8}$ inches. The pains continued very powerful; about 11 a.m. she became very restless, and could not be controlled, and at 2 p.m. was seized with a violent convulsion. She was bled to sixteen ounces; at 3 she had another fit, and was again bled to the same amount. My friend then tried to deliver her by the forceps, failed in doing so, and sent to me. I found her very much exhausted, in a state of partial coma, from which she could be roused to answer questions, but she immediately relapsed into insensibility. The funis was prolapsed, not pulsating. The pains had quite ceased since the second fit. As there could be no doubt about the child's death I perforated the head immediately, and delivered in half an hour by the crotchet. There was no return of convulsions after delivery. She gradually recovered her consciousness; and I saw her on the 30th, when she was convalescent. On September 17, 1846, I was consulted about her, in consequence of pregnancy, and I recommended that labour should be induced prematurely.

Craniotomy.

Case 140.—On the same day, December 26, 1844, at 10.30 p.m., at the request of a Professional friend, I saw Mrs. W., Hatton-garden, aged 32, in labour of her first child. The membranes broke thirty hours before; the head was in the pelvis very much compressed and elongated, producing great pressure on all the structures in the cavity; the pelvis was narrow throughout. The pains had been very violent after the membranes broke; but had now ceased entirely; there had been no advance in the head for twelve hours; and the child's body emitted a most offensive putrid odour. The woman was very much depressed both in mind and body, so that I had but very little expectation of her recovery. I introduced the catheter with great difficulty, owing to the pressure produced by the head, perforated the skull, and extracted easily in about fifteen minutes by the crotchet. She rallied wonderfully and recovered, but five days after delivery the urine passed involuntarily; a slough took place at the neck of the bladder, for which, I believe, she sought Surgical assistance after she recovered from her confinement.

N.B.—I have already remarked that in almost all the cases which I have seen of slough taking place at the neck of the bladder, the child's body has been in a highly putrid condition. I therefore attribute the disorganisation to long-continued contact with the putrid head, and consequent absorption of putrid matter as the predisposing cause; and to uninterrupted pressure for a lengthened period as the immediately exciting cause.

Besides the case previously detailed, in which I delivered

by craniotomy, the head presenting, under hæmorrhage, and the three cases, also already given, in which I perforated behind the ear after the body was born, when turning had been accomplished under *placenta prævia;* it will be observed that during the five years embraced between January 1, 1840, and December 31, 1844, I delivered thirty-two women by means of the crotchet, which instrument I always use because I regard it as much more efficacious and much less dangerous than any kind of "craniotomy forceps" that I have yet seen. In two of these cases the face presented. Two were complicated with convulsions. In one the head and a foot presented at the pelvic brim. One was the first child of twins. In one the cause of delay was pelvic tumour. In two the fœtus was hydrokephalic. In one a slough took place from long continued pressure, contracting the vagina, the bladder being uninjured. In two fistulous orifices occurred in the neck of the bladder, both fœtuses being highly putrid. Only one woman died,—one of the cases of hydrokephalus,—she had been in labour between four and five days, and was moribund when delivered.

Those difficult breech presentations and transverse cases, which occurred to me between January 1, 1840, and December 31, 1844, will occupy the next series of these reports.

8, Portman-square.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

SAMARITAN HOSPITAL.

TWO CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)
[From Notes by Mr. E. PARSON, House-Surgeon.]

Case 1.—*Multilocular Ovarian Cyst—Ovariotomy—Ligature of Omental Vessels—Recovery.*

E. F., aged 20, single, was admitted on July 5, 1862.

History.—Has been employed in a shop, but was obliged to leave in March, 1860, having been getting large in the abdomen after two attacks of pneumonia, in 1858 and 1859. For the last two years has been gradually losing flesh, while the abdomen has gone on increasing. The catamenia were regular until last autumn; then they came on every fortnight, and then every week, lasting three days, so that she was scarcely ever free; but they stopped suddenly last Christmas from the day of the death of a relative, and she has "seen nothing" since January. Mr. Wells saw the patient in June, in consultation with Dr. Hawksley, who, finding the lungs and heart healthy, had recommended ovariotomy.

State on Admission.—She was pale and extremely emaciated, but cheerful. The whole abdomen was occupied by a large multilocular ovarian tumour, which extended upwards beneath the false ribs, pushing them outwards and the ensiform cartilage upwards. The girth at the umbilicus was 44½ inches, and the distance from ensiform cartilage to symphysis pubis 22½ inches—the umbilicus being exactly midway between the two points. Her breathing was much oppressed. She was frequently sick, and locomotion was very difficult. The uterus was central, normal, and movable.

Operation, July 5.—Mr. Parson having administered chloroform (Sir Joseph Olliffe, and Drs. Bache and Michon, of Paris, and many other visitors, being present), Mr. Wells first exposed the cyst by an incision six inches long, extending downwards from one inch below the umbilicus. Some extensive parietal adhesions, passing quite up to the false ribs, were then separated by the hand. One large cyst was tapped, emptied, and the cyst wall was tied around the canula. A second cyst was tapped through the first without withdrawing the canula. A large semi-solid mass above made it then necessary to extend the incision to two inches above the umbilicus. A large piece of omentum, and another of mesentery connected with a loop of intestine, were then separated by the hand from the upper portion of the tumour, and were held outside to prevent bleeding. The tumour was then withdrawn. The pedicle was secured by a clamp about two inches from the right side of the uterus, and the tumour was cut away. The left ovary was found to be healthy. Several vessels in the omentum and mesentery bleeding freely, four of them were stopped by torsion, and a large piece of torn omentum having been separated by the instruments described by Mr. Clay, of Birmingham, in a recent number of the *Medical Times and Gazette*, three arteries (which still bled freely on the surface which had been rubbed through) were tied by very fine silk. The ligatures were cut off close and returned with the omentum. The peritoneal cavity was then carefully sponged free from all blood and ovarian fluid, and the wound was closed by harelip pins (passing through the whole thickness of the abdominal walls, including the peritoneum) and by superficial wire sutures. The fluid collected weighed twenty-seven and a-half pounds, the tumour eleven pounds, and as some pints of fluid escaped, the tumour must have weighed, when entire, upwards of forty pounds.

The patient rallied well after the operation. She had two small opiates during the night. Healthy reaction came on, but without pain or vomiting, and perspiration was free. The harelip pins were removed three days after operation, and the clamp on the fifth day. The bowels acted naturally on the eighth day. By the eleventh day nearly the whole of the slough caused by the clamp had separated, and the wound was nearly closed. On the 22nd (seventeen days after operation) she was exposed to a draught of cold air when perspiring. This was followed by sickness, abdominal pain, rapid pulse, and hurried breathing, which lasted two days, but went off with free perspiration. After this, recovery was uninterrupted. She left the Hospital in good health a month after operation; having been out for a walk some days before. She then went to Margate, and has been seen since her return, quite strong and rapidly gaining flesh.

Case 2.—*Multilocular Ovarian Cyst—Ovariotomy—Recovery.*

M. A. D., aged 43, single, a household servant, was first admitted last May. She was then pale, feeble, but fat, and stated that she had always been delicate, but never very ill till two years and a-half before. She then found her abdomen getting larger, and became subject to pain. A Surgeon, to whom she applied, then discovered a "swelling" to the left of the umbilicus. A few months after she found another on the right side. She then had an attack of violent abdominal pain, chiefly in the left iliac region, attended with much tenderness. In November, 1861, she was admitted to the Oxford Infirmary, under Dr. Child. Her legs were then much swollen, but they subsided under the treatment adopted, and Mr. Symonds proposed to perform ovariotomy, but the patient would not consent. She was tapped, and eleven pints of fluid were removed, leaving a great portion of the tumour undiminished. She obtained great relief from the tapping, and went home; but soon afterwards began to increase, and came to London. She remained in the Samaritan Hospital during May, but her general state was then so unsatisfactory that Mr. Wells would not perform ovariotomy, though she was very anxious to have it done. The pulse and heart's impulse were very feeble, and the legs œdematous, but there was no albumen in the urine. She was ordered steel and quinine, a generous diet, and was sent to the country. Her general condition then improved, and she was re-admitted in much better health on July 23, 1862. The catamenia had been regular till the tapping, but she had "seen nothing" since. The whole abdomen, from the pubes to within an inch of the ensiform cartilage, was occupied by a multilocular ovarian cyst. The girth at the umbilicus was forty-one inches; the distance from ensiform cartilage to symphysis pubis, eighteen inches. Parietal adhesions were evident, but the pelvis was free.

Ovariotomy was performed on July 28, in the presence of Professor De Toca, of Madrid, M. Gayet, of Lyons, Dr. Ciuccio, of Naples, and many other visitors. An incision was made from one inch below the umbilicus directly downwards for five inches. The tumour was so closely adherent here that it was opened, and a large cyst (which contained sixteen pints of fluid) was emptied before the peritoneal cavity was opened by any attempt to separate the adhesions. It was necessary to carry the incision upwards above the umbilicus before it was

possible to find the line of demarcation between the cystic and parietal layers of peritoneum. This was done; some very fine adhesions were broken down by the hand; a small piece of omentum was separated; and the cyst was withdrawn, after removing a long line of attachment to the left broad ligament and Fallopian tube. The pedicle, on the right side, was secured by a clamp, and the left ovary being found healthy, the wound was closed by harelip pins and wire sutures in the usual manner. It was not necessary to sponge out the peritoneum, as nothing had escaped into it.

She rallied well, but required three small opiates during the night, on account of pain. The day after the operation she passed very quietly. Three deep sutures were removed on the second day, and the clamp on the third day. Copious miliary rash then appeared, and, as there was flatulent distension of the abdomen, a turpentine enema was administered, and followed by relief. On the fourth day a harelip pin, which had escaped notice before, was removed, and as the edges of the wound and the tracks of the pins had assumed a sloughy appearance, diluted carbolic acid was applied on cotton wool. As the general condition was satisfactory, this gangrene was explained by the fact that there were two patients with sloughing sores in an adjoining ward. On the fifth and sixth days large shreds of sloughy cellular tissue were removed from between the lips of the wound, and M. Gayet, of Lyons, who had carefully watched the case from day to day, was strongly impressed with the value of the practice of uniting the edges of the peritoneum. It was very clear that if they had not been well united in this case, the fetid discharge from the sloughing edges of the wound would have sunk into the peritoneal cavity, and would probably have proved fatal. Nearly all the slough had separated on the seventh day, and, although very free suppuration went on for some time, healthy granulations sprang up, and the patient left the Hospital in very good health on August 25.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

TWO CASES OF PARESIS OF OCULAR ACCOMMODATION AFTER DIPHTHERIA.

(Under the care of Mr. HUTCHINSON.)

We have several times during the last few years recorded in the Hospital Reports instances of that peculiar paralysis of the muscles of accommodation of the eye which every now and then follows diphtheria. To these we now add two other cases recently under notice. In both the symptoms were very similar, the patients having become temporarily presbyopic, and in both there was associated with it partial paralysis of the palate.

Case 1.—*Severe Attack of Diphtheria—Impaired Sight, Speech, and Hearing coming on during Convalescence.*—Anne E., a rather delicate girl, aged 8, was brought to me on March 24 on account of defect of sight. I was told that she had been attended by Mr. Roper, of Shoreditch, through a severe attack of diphtheria six weeks ago. For three days she was so ill that she was not expected to recover. Her mother was not aware that she had ever had scarlet fever. About a week after she had begun to recover it was observed that she could not see, excepting when the object was held at a long distance, that she was deaf, and spoke indistinctly. She was sent into the country, and there regained her strength satisfactorily. She has at present no paralysis of the limbs; is still a little weak, but that is all. Her voice is still very feeble and muffled. She can read capitals, but holds the book at a distance. She is somewhat deaf. She had otorrhœa before the attack, which somewhat complicates the history as to deafness. It appears that sight, hearing, and speech are all improving slowly. The palate looks quite healthy, and there is no morbid thickening. On examination of the eyes with the ophthalmoscope, no morbid condition whatever could be discovered. With a convex lens she could see to read. After about two months' treatment with iron and quinine the eyes perfectly recovered.

Case 2.—*Diphtheria—Loss of Accommodation in Both Eyes and Partial Paralysis of Pharynx coming on during Recovery.*—Sarah B., aged 14, but looking like 8, grey eyes and light brown hair. Although so small for her age, she looked in good health, and was stated never to have been ill previously. Six weeks ago she was laid up with a "diphtheria throat." Dr. Rogers, of Old-street, St. Luke's, attended her and stated that the disease was diphtheria. She was very ill for a fortnight, during several days of which her death was expected. She had six brothers and sisters, all of whom were in the house with her during the illness, but none suffered from diphtheria. All had had scarlet fever some years ago, but Sarah was, at that time, in the country, and consequently did not take the disease. A baby six months old slept in the same bed with Sarah during the diphtheria, and although it had never had scarlet fever, it did not suffer. During the last month our patient has been gradually regaining her strength, but her sight has been steadily failing. A week ago "she could read the Bible with her grandmother's spectacles," but yesterday she could not do so. Her palate is also partially paralysed; she speaks through her nose, and when she drinks is obliged to take it in sips, otherwise the fluid would come through her nose. During her illness and for the first week of her convalescense she could see to read, and did often read in bed. The failure of sight only took place about ten days after she was fairly recovering. It was rather sudden, but has advanced since. Tongue clean; appetite good; a long time about her meals, because she chews slowly and is obliged to take a sip of liquid in order to swallow. She is believed to taste well; she can also smell well. She is in good spirits, and has perfect use of her extremities; does not wet the bed; bowels rather irritable; memory good; hearing good. Pupils rather larger than natural, the right slightly larger than the other. Palate irritable to the touch, quite clean and not drooping. Convex glasses very much improved her power of vision, but did not wholly restore it. With the ophthalmoscope the retina, choroid, etc. were shown to be quite healthy. In the course of six weeks the girl had very greatly improved.

The following points are of interest in reference to the general subject of diphtheritic paralysis:—

1. The eyes and the palate are almost invariably the parts in which it begins. In a large majority of cases (*i.e.*, the mild ones) it affects only these parts, and in the more severe ones these very rarely escape.

2. It almost always comes on, not during the height of the disease, but in the course of convalescence, and at a time when the general strength is rapidly improving.

3. It is for the most part peculiar to diphtheria. We can speak from extended observations at the Ophthalmic Hospital that cases like the above do not come in which the history given is of any other preceding disease,—an exanthem, for instance. In the course of about four years, we have seen half-a-dozen with a history of diphtheria, but none with any other.

4. It is much commoner in children than in adults; for the reason, doubtless, that diphtheria itself is by far more frequent in young persons. Not a few cases are, however, on record in which adults suffered from diphtheritic paralysis.

5. It is for the most part a transitory condition. In all the cases which we have seen the patient recovered perfectly, regaining complete power of accommodation. In cases of general paralysis from this cause, in which nerves presiding over important viscera are involved, it is easy to understand how a fatal issue may sometimes be brought about indirectly, since even a temporary arrest of function may be incompatible with continuance of life. It is quite possible that the muscular substance of the heart itself might be involved in a paresis of this kind.

6. The treatment requisite is,—rest of the affected part, rest in the recumbent posture, change of air, tonics and liberal diet.

ST. BARTHOLOMEW'S HOSPITAL.

FATAL RESULT FROM SWALLOWING, BY MISTAKE, A LARGE QUANTITY, PROBABLY ABOUT HALF AN OUNCE, OF SULPHATE OF ZINC.

(Under the care of Mr. SKEY.)

[Reported by Mr. F. Marsh, House-Surgeon.]

W. N., aged 52, was admitted on May 5, having, about two hours before, taken, by mistake, a wineglass of lotion, which a veterinary Surgeon had recommended him to use for a horse under his care. Being seized almost directly after taking the liquid with pain at the epigastrium and sickness, he came at once to the Hospital, having on his way ascertained that the lotion consisted of a strong solution of "white copperas."

His condition on admission was as follows:—Countenance

pale, expression anxious, pulse about 70, and of small volume, skin cold and clammy; he complained of pain at the epigastrium, and of feeling sick; the bowels acted freely immediately after his admission.

A mustard emetic was given to ensure the removal of all the poison from the stomach, and he was ordered by Mr. Wood to take emulcent drinks, six ounces of brandy daily, and liquor opii sedativus when in much pain.

Towards evening the pain and sickness had decreased, and his general condition had improved.

During the next three days he improved slightly, and appeared to be recovering, though very slowly; but on the fourth day he sunk rapidly into a very exhausted condition, and he died on the fifth day.

Post-mortem.—All the tissues of the belly loaded with fat; heart especially fatty and flabby. The mucous membrane of the pyloric end of the stomach and of duodenum reddened and inflamed in patches. No other morbid appearances were detected.

The lotion on *Analysis* proved to be a very concentrated solution of sulphate of zinc, containing no impurity except a rather large amount of iron.

CANCRUM ORIS, CONSEQUENT ON FEVER—DEATH.

(Under the care of Mr. PAGET.)
[Reported by Mr. STEPHENSON, House-Surgeon.]

Cancrum oris is not unfrequently called ulcerative stomatitis, a disease really much simpler, and one quickly curable by large doses of chlorate of potash. Not so true cancrum oris, or, as it is called also, gangrenous stomatitis. This is very often fatal, but fortunately it is rare. Dr. West has only seen seven cases, but of these six died. It generally follows one of the exanthemata, as in the case we are about to relate. A few months ago, Mr. Simon performed a plastic operation to remedy a defect caused by sloughing of part of the cheek from this disease. Here, too, it followed a form of continued fever, but, as a piece of bone also had come away, it was suspected that mercury had been administered. There was a large gap in the cheek continuous with the mouth, showing a result of this fearful disease when the patient lives through the great constitutional depression attending the gangrenous process. It is most common, Dr. West says, between the ages of two and five years. In Mr. Paget's case the age was five and a-half years.

Edward F., an emaciated child, aged 5½, was admitted on January 25, 1862.

History.—About Christmas he is said to have been laid up by typhoid fever, but had no eruption, sore-throat, or diarrhœa. He was very deaf and much prostrated, and never fairly regained his health. Three weeks ago he lost his appetite, and appeared to be generally unwell, but never appeared to find any difficulty in eating or swallowing.

Seven days ago his mother noticed some blood about the child's teeth and lips, and on finding that the cheek was swollen, she looked in the mouth, and found what she thought to be "a gumboil on the cheek discharging." Still he did not complain of pain, and took a fair quantity of food.

The swelling had been rapidly increasing all the week, but the black patch appeared yesterday evening only. He had had regular Medical attendance; fomentations to the outside, and lotions to the inside of the cheek had been prescribed. All this time he had had little sleep, and had been constantly delirious.

January 25.—He was lying on his right side, breathing hurriedly. He was very sullen, and his eyes were surrounded by dark areolæ. The face was distorted by enormous swelling of the left cheek and upper lip. The outer angle of the mouth, half of each of the lips, and a portion of the left cheek were occupied by a black slough, terminating by a well marked line, and apparently separating in portions of its circumference. The skin around very tense and tender; the sore had a very offensive odour. Inside the mouth there was the same black slough, but not quite so large, however, as on the cheek, and apparently not involving the gums. No line of separation anywhere.

A draught containing ten grains of chlorate of potash and ten minims of liquor cinchonæ was ordered to be taken every four hours; a lotion of Condy's fluid for the mouth. Milk diet, wine six ounces, beef-tea one pint.

January 26.—He has passed a quiet night, having had four drops of tincture of opium at bedtime. He lies in the same posture as yesterday; is very irritable. The cheek is less red, but is more swollen, and the eyelids of the affected side are much affected. The slough appears to be separating; and when he opens and shuts his mouth it seems to have an independent motion from the rest of his cheek. He refuses to take anything except wine and milk. His bowels have not acted since his admission, tongue clean and moist, pulse not perceptible in the temporal or radial arteries, weak in the femoral—156. Four minims of tincture of opium at bedtime.

27th.—He has passed a quiet night, but is very fretful and weaker. The slough is moist, and separating. He takes his nourishment pretty well. During the afternoon and evening he was very restless and irritable, constantly calling out. At 7 p.m. four drops of tincture of opium were given, and it was repeated at nine o'clock in consequence of his restlessness.

28th.—He died this afternoon, having sunk from exhaustion. The slough had not separated. He had refused all nourishment during the day.

MIDDLESEX HOSPITAL.

CASE OF MENORRHAGIA ARISING FROM RETAINED PLACENTA, AFTER ABORTION—REMOVAL OF THE PLACENTA NEARLY FOUR MONTHS AFTER THE ABORTION—RECOVERY.

(Under the care of Mr. DE MORGAN and Dr. PRIESTLEY.)
[Reported by Mr. SPANTON, Resident Obstetric-Assistant.]

MARIANNE M., aged 29, a cook, married, admitted into Prudhoe Ward on March 21, 1862.

Previous History.—Until the present illness began the patient had always enjoyed good health. The catamenia appeared at the age of fifteen, and continued regularly, lasting over a period of four or five days, not accompanied with much pain, and not more profuse of late. She was married four years ago. Six months after marriage she aborted at about the end of the second month of pregnancy. From this she made a rapid and complete recovery. Six weeks before last Christmas (three and a-half months before admission) she again aborted, at about the end of the third month of pregnancy. The patient states that there was not severe flooding at the time, and she believes that no placenta came away with the embryo, nor was anything taken away by the Surgeon who attended.

Since that time there had been almost constant discharge per vaginam of a dark, sanguineous fluid, smelling offensively, and the patient's general health had become greatly impaired as the result of this, and of the constant "lingering pain" in the lumbar and uterine regions.

The patient was admitted into a Cancer Ward, under Mr. De Morgan, on March 2, on account of severe menorrhagia, which had come on four days previously, after much walking. There had been copious discharge of clots "like pieces of liver," accompanied with much pain in the loins and hypogastrium. Under the care of a Surgeon outside the Hospital this attack of bleeding had, before admission, almost passed off, leaving the patient extremely weak and with a discharge of the same character as before the attack of hæmorrhage. When admitted into the Hospital, cold water was applied to the vagina, and astringents with mineral acids were ordered with a liberal diet.

After an examination, Mr. De Morgan could not discover any distinct evidence of cancer of the uterus, though from the general appearance of the patient it seemed probable that this might exist.

On March 21 Dr. Priestley saw the patient. She then presented an anæmic, almost cachectic aspect, complained of pain in the back and uterine regions, and was very weak. There was slight dusky sanguineous vaginal discharge, having an offensive odour. On examination the uterus was found to be somewhat enlarged in the body and fundus; the os uteri somewhat dilated; the cervix uteri not indurated nor enlarged; the vagina normal. The patient being transferred to Prudhoe Ward, was ordered some quinine and mineral acids, and a few days after, some astringent injection. The symptoms, however, continued much the same, and on April 11, with a view of exploring the uterine cavity, a sponge-tent was introduced into the os uteri, and on the day following another was used. After these, such dilatation was effected that Dr. Priestley was able to feel some foreign body in the upper part of the cavity of the uterus, but of what nature could not then be determined. After three more sponge-tents had been employed, there was sufficient dilatation of the os uteri easily to

admit one finger fully into the uterus. Dr. Priestley could then feel an elongated body projecting into the cavity, and adherent near the fundus. With some difficulty a vulcellum forceps was introduced, and by means of this the adherent mass was removed entire, the adhesions to the uterus being but slight. It was about as large as the thumb, soft and friable, of a dark red colour, in general appearance not like a polypus, but more like a portion of atrophied placenta. On examining it microscopically, this was found to be really the case: the villi and fœtal loops of vessels could be very distinctly seen. Some portions of it appeared to have become fibrous, and here the true placental structure was lost. Nothing more could be felt in the uterus afterwards.

The operation gave rise to rather severe pain, which continued for some hours, but subsided after the application of opium poultices to the hypogastrium.

There was for a short time considerable discharge of fluid blood. This soon ceased, and on April 21, two days after the operation, the catamenia appeared in moderate quantity, and not accompanied with much pain.

On the 25th the catamenial discharge ceased, giving place to slight leucorrhœa. The patient's health had already much improved; she was free from pain, and complained only of some remaining weakness. She was ordered to take haustus ferri sulphatis ter die.

29th.—Still improving in general health, some leucorrhœal discharge continuing. Ordered to take a draught containing tincture of sesquichloride of iron and quassia three times a-day.

May 2.—Discharged; some very slight leucorrhœal discharge remaining.

14th.—Came to the Hospital to report herself quite well, having had no return of hæmorrhage or other discharge.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 6.

LUNACY AND THE MEDICAL PROFESSION.

Among the subjects of interest to the Medical Profession during the last six months, Lunacy has been in the ascendant. Besides the ordinary average of common occurrences incident to lunacy for the period in question,—of which the barbarous murder of Mr. Puckett, the Parish Surgeon, by a madman, may stand as an example,—there have been not a few events commanding a profounder and more extended attention. The year opened with the Wyndham case, on which were fixed the eyes of the whole country. The excitement thus begun was kept up by the Lord Chancellor's Lunacy Bill, and the discussion which it created both in and out of Parliament. This, again, was followed by the Scotch Lunacy Bill, introduced into the Commons with a new whirl of hard-headed contention and excitement reflected from the North. The readers of our weekly Numbers have had their information kept up with the current of circumstances in these several topics; nevertheless, it seems not out of place, now that the stormy agitation of men's minds has ceased, to take some retrospect of subjects of so great interest and to indulge in such reflections as each may severally suggest.

The Wyndham case is fruitful in points of consideration of the most momentous character. The reputation of the Medical Profession with the public is at stake. The disadvantage under which our Profession labours is, that the public is altogether incompetent to form a just opinion in Medical questions; and if there be any Medical questions in which there is less inherent ability in the public to form a judgment than in others, it is beyond doubt those which relate to insanity. The Lord Chancellor in this respect has proved himself one of the public. He thinks of lunacy as he thinks of a rotten apple. This is exactly the popular idea. Nobody will quarrel with the Lord Chancellor, or with the public, when they regard a rotten apple as a fact. The rottenness is sometimes of larger, sometimes of smaller extent; still, when rottenness *is* present, it is a fact. Everybody knows what rottenness in an apple is, and therefore everyone, the Lord Chancellor not excepted, knows when that fact is before their eyes. Sometimes, indeed, common apples, like the apples of Sodom, do not show their rottenness till they have been cut open; but as apples are grown to be cut open, there is never any difficulty in arriving at the fact of rottenness when it is present. So the Lord Chancellor and the public expect to deal with lunacy. They see a man with his coat-sleeves turned inside out, shouting in the streets, with a crowd of boys following him. This is one of their insanity facts, though it might be that the man is only drunk. They see a man gesticulating in a crowd in the outskirts of a town, declaring himself to be the Apostle Paul, just come to Britain, after having been engaged in preaching to the heathen of the earth for the last 1800 years. This is another of their insanity facts. But what becomes of their fact when this man, being brought into Court and questioned by the presiding Judge (*as proposed*), answers nothing but the most correct sense, and shows himself in every respect quite equal to the Judge in the accuracy of his general information on all ordinary topics? If insanity be a fact, like the rottenness of an apple, what has become of the fact which is like to rottenness when the maniac has been brought before the Judge? It may be said that insanity may be a fact, though, unlike rottenness, it may pass away, and give place to the new fact of healthy structure; nevertheless, the probability is, that no sooner is such a man dismissed by the Judge as one in whom no aberration of mind could be found, than he proceeds straight to some place favourable for the assumption of his former character of the Apostle Paul. If it be said that little public injury could ensue from the liberation of a man labouring under the delusion that he was the Apostle of the Gentiles, that is by no means certain. Thus we have known a woman who spoke intelligently and ingeniously from the Scriptures, believing herself to have a special commission from Heaven, who nevertheless attempted to kill her husband on the ground that the three Persons of the Trinity had appeared to her, and commanded her to slay him, as an impediment to her progress in God's work. We assert that no person labouring under insanity can be at large with a due regard to the safety of the public; for no one can judge how quickly a lunatic's thoughts, however well disposed he may seem, may take a homicidal turn. There can be no doubt that there at large in this Kingdom hundreds of lunatics having shrewdness enough to cloak their malady, whose daily thoughts are employed on schemes to murder fellow-men. Most of these lunatics, if brought before a Judge, would come off triumphantly, as having the art to conceal the fact of their rottenness. The very solemnity of the occasion, when an appearance is to be made before a Judge, would give force to the madman's power of restraining himself for a time. There is hardly a Medical man who may not remember how many long hours he has spent in trying in vain to extract symptoms of mental derangement from an alleged lunatic, when perhaps, after a few days, the patient comes dancing around him, and singing derisively in triumph at the success with which he had been baffled on the

previous occasion. Where was the fact on the first of these occasions which comes out so conclusively on the second occasion? But if it be asked what proof there is of so many lunatics being at large daily plotting destruction to fellow-men, the answer is that there are many thousands of licensed Medical men in the United Kingdom; and the evidence of what we have said lies in the breasts of these Practitioners, almost every one of whom could testify to having—and that, too, within a short period—known such cases. Is it asked, then, "Why do so few succeed?" We answer, a considerable number do in fact succeed; the major part fail; not from want of determination, but because their plans, although for the most part cunningly enough laid, yet partake so much of the want of consecutiveness, so common a feature in madness, that they many times prove abortive. And again, at other times the madman in the actual attempt is overpowered and placed in confinement. This is a serious view of the subject of insanity, in regard to which a prevalent maudlin sentimentality is only not alive because it shuts its eyes to the most obvious facts.

But to return to the topics of which we propose to treat. The extreme protraction of the Wyndham case was doubtless a serious evil. But would not any possible limitation to the proceedings in such cases involve greater evils? All suits in law are evils; but would not the prohibition or limitation of such suits be accompanied by still greater evils? It is not to be denied that when the estate in question is large, there is a natural tendency in the parties concerned to overload the proceedings. But while the authority of the Court before which the trial comes may exercise some restraint, and public opinion as expressed by the Press and in Parliament may do more, it is certain that any legislative measures designed to render the trial of cases in lunacy subject to different rules from those recognised in other cases, must prove either abortive or mischievous. What is the object to be gained by placing legislative restrictions upon proceedings of this kind? Is it merely that the fastidiousness of the public taste may not be shocked by the details made public? No one is forced to read those details if they be distasteful. But in a free country like Britain, is the fear of a shock to a pseudo delicacy to be put in competition with the unrestrained liberty which every man should possess to defend himself against attempts to deprive him of his birthrights? If it be said that any restriction imposed will operate equally in restraint of plaintiff and of defendant,—that is by no means certain. We feel assured that any legislative restriction on the mode of inquiry into a man's soundness of mind would have the effect of multiplying the number of those under restraint. There are already 26,200 certified lunatics in England and Wales; and of these, as stated by Dr. Stevenson Bushnan in this Journal for August 2, no less than 8955 lunatics were admitted into Asylums during the past year. Do the public desire to supplement this list by a large catalogue of persons possessed of more or less considerable estates placed under trust? We acquit the public of any such desire. Nevertheless, their present sentiments undoubtedly tend to such an effect. There are in this country very many silly persons and very many stupid persons (the distinction between these two classes is important) heirs to property more or less considerable. How easy would it be for the guardians of such persons to show the strong probability that when they come of age, many, especially those of the former class, would dissipate their means. Are the public prepared to place all silly and all stupid people under guardianship? Yet any measures interfering with the freedom of defence on the part of such less fortunate persons would contribute to that result. If it were an invariable consequence that silly and stupid people make away recklessly with their means, then there might be a ground for permitting the Guardians of the Poor to interfere to the extent of preventing such persons from becoming finally a burden upon their parishes. But it is by no means the truth that the silly and the stupid invariably prove spendthrifts. It is true, indeed, of a large proportion of them; but who would be guilty of the folly of maintaining the maxim that the many should be stigmatised to ensure the few against the dissipation of their means? There must be reverses—"ups and downs"—in human life. The means taken in the expectation of preventing such changes are mischievous in the extreme. In short, the only conclusion that human wisdom can reach by the fullest consideration of this subject is, that silliness and stupidity are among the natural paths to poverty. We fear, then, that, as we said before, there is no effectual cure against the protraction of inquiries into lunacy, except what may be accomplished by the authority of our Superior Courts, and the strong expression of public opinion.

With respect to the Lord Chancellor's Bill, its sting has in a great measure been removed, and we have already nearly exhausted what is to be said in respect to the common error of regarding insanity as a fact. Yet we cannot help adding a few words with regard to the lucubration of a Psychological contemporary, which has, indeed, both surprised and grieved us. This erring brother has deserted the cause of the Profession to advocate the crotchet of the Lord Chancellor. Hopeless of the effect of argument in behalf of such a chimera, he girds himself up to bamboozle his readers. He tells them that in order successfully to controvert the Chancellor's views of the question, "the least that it would be needful to prove is, first, that states of idiocy, lunacy, and unsoundness of mind are always states of physical disease; and, secondly, that Medical men are always able to recognise them as such in consequence of their professional knowledge and skill." What is it that our friend says is to be successfully controverted by Medical men when they become possessed of these two acquisitions? "Not whether certain states of mind are or are not conditions of disease, but whether it is a fact that they exist." Put this into other language and what is it? Our erring brother says that the Lord Chancellor is right; that lunacy can be established as a fact by non-Medical witnesses, unless Medical men can always pronounce the particular alteration of the nervous system upon which any case may depend. Was there ever such folly? If a Medical man knew that mania is the result of induration of one part of the brain, monomania the result of induration of another part, and dementia of softening of the same two parts, he could not affirm it to be a fact that induration of the first part is present until he had recognised the symptoms of mania in the patient. But if a certain state of mind be mania, and if the presence of that state be ascertained, mania has surely been here recognised as a fact whether it be or be not dependent upon any actual lesion of the nervous organs. It could not be more of a fact merely because it was known that after death induration of a certain part of the brain would be discovered. Our brother most unwarrantably assumes that uneducated persons could readily discriminate states of mind, yet could not discriminate actual alterations in the tissue of nervous organs. He may rest assured that it is not by discovering the proximate cause of the several forms of insanity that Medical men will be rendered more fit to judge of the presence of insanity than non-Medical persons. Among the many reasons which it would be easy to enumerate, it will be enough to say that being read in the records of past cases of insanity, and conversant with the mental peculiarities of individual men under all possible circumstances, they are able to note changes which other persons do not note; to detect differences and resemblances which escape ordinary attention; and so to reach facts which others cannot reach, just as the shepherd comes to know the individual sheep of his flock, and the herdsman each individual bullock, while to the inexperienced nearly all the sheep and nearly all the bullocks seem alike.

MEDICAL EDUCATION AT ST. ANDREWS.

(From a Correspondent.)

Although the University of St. Andrews does not contain a complete Medical School, it deserves especial notice for the advantages which it offers for the prosecution of those preliminary studies which are now imperatively required of those who purpose entering the Medical Profession. These advantages in my opinion equal, if they do not surpass, those held out in any other Scottish University, and I entertain this opinion on the following grounds : (1.) The Professors are at least equal in reputation to those of any similar institution. The staff embraces, amongst others, Principal Forbes, whose researches on Heat, Meteorology, the Glaciers, etc., have given him a world-wide reputation ; Mr. Sellar, Professor of Greek, who took a First-class in Classics at Oxford, and was subsequently elected a Fellow of Oriel College ; Mr. Shairp, Professor of Latin, also an Oxford man, and a Newdegate Prize-man ; Mr. Fischer, F.R.S., Professor of Mathematics, Fourth Wrangler at Cambridge, and late Fellow of Clare College ; Mr. Ferrier, Professor of Moral Philosophy, author of "The Institutes of Metaphysic," and one of the Examiners at the University of London ; Mr. Veitch, Professor of Logic, one of the editors of the works of his late eminent master, Sir William Hamilton ; Dr. Day, Professor of Medicine ; and Mr. Connell, Professor of Chemistry. (2.) The classes being small (very seldom containing fifty students, and usually not half that number), each student obtains a comparatively large amount of the attention of the Professors ; and the certainty of being called up for examination every second or third day affords a stimulus which is almost entirely wanting in the crowded class-rooms of Aberdeen and Edinburgh. (3.) St. Andrews, with its two or three thousand quiet respectable inhabitants, presents none of those temptations in the form of theatres, casinoes, taverns, and still more objectionable houses which lead astray so many of our students in large University towns. And (4.) In a sanitary point of view, with its dry, bracing air, its extensive sands and links,(a) and its beautiful bay, equally delightful to the bather and the boater,—it stands proudly pre-eminent.

The following is the course of study which is required for the degree of Master of Arts :—(1.) English Language and Literature ; (2.) Latin ; (3.) Greek ; (4.) Mathematics ; (5.) Natural Philosophy ; (6.) Logic and Rhetoric ; and (7.) Moral Philosophy.

The Session extends from the beginning of November to the middle of April, and four Sessions' attendance is usually required before the student is allowed to go in for the final part of his examination for the M.A. degree. By a recent regulation, however, any one who comes up to the University sufficiently advanced in his knowledge of Latin, Greek, and Mathematics, to join the second year's classes in these subjects, is allowed to escape attendance on the first year's classes, and can thus obtain his degree at the end of the third Session.

The Class fees for attendance at all the lectures required for the M.A. degree amount to something less than £30.

A student may reside in lodgings, or board with a private family, or enter himself at St. Leonard's Hall—a College hall recently established on much the same plan as the private halls and hostels of the English Universities. The average expenses of board and lodging do not exceed £40 the Session, except at St. Leonard's Hall, where they amount to about £65 ; but for this sum daily private tuition in Classics, Mathematics, and Mental Philosophy is given by the Warden, a Graduate of the University of Oxford, who is also charged with the moral and religious oversight of the students residing in the Hall (b).

A good student may on his entrance to the United College obtain a bursary or scholarship, varying in value from £14 to £25, and tenable for four years, while at the end of each Session he may obtain prize money ranging from £8 to £20.

We have delayed to the end our remarks on the Medical classes which are taught at St. Andrews. The Professor of Medicine has hitherto delivered an annual course of about forty lectures on Comparative Anatomy and Physiology, and whenever he has had a sufficient number of students to form a class he has given a course of one hundred lectures on Human Anatomy and Physiology ; but we have been informed that in consequence of the chair of Civil History having been changed by the Universities Commissioners into the chair of Civil *and Natural* History, it is uncertain whether Dr. Day will continue his lectures on Comparative Anatomy.

Mr. Connell has been prevented by illness from undertaking the duties of the Chemical class for some time past, and we believe that he intends to resign the chair. He will, doubtless, be succeeded by Dr. Heddle, who has, we are informed, managed the class very successfully for the last six or seven Sessions.

The system of Medical graduation will be materially modified at the end of the present year.

At present Fellows, Members, and Licentiates of the Royal College of Surgeons of England, Edinburgh, and Ireland, of the Royal College of Physicians of London, of the Faculty of Physicians and Surgeons of Glasgow, and of the London Apothecaries' Company, are eligible as candidates for the degree of Doctor of Medicine. There will be two more examinations for degrees under this system, commencing on September 29 and December 17. The candidates are usually detained at St. Andrews for nearly a week ; and the graduation fee, which includes all expenses, is twenty-five guineas.

Students who have attended a recognised Medical School for three winter and two summer sessions, and who can produce evidence of having attended Medical Hospital Practice for at least two years, are also eligible as candidates under the existing regulations.

After the present year, certain regulations which have been imposed upon the University by the Scottish Universities Commissioners will come into force. Of these the following is a short abstract :—

The Medical degrees hereafter to be granted by the University of St. Andrews are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.) For the two first an extended preliminary education and examination will be required, except in the case of candidates who have obtained a degree in Arts (not honorary) in a British University. The Medical Education is to extend over four years. Each year is to include an *Annus Medicus*, constituted by at least two courses of a hundred lectures each, or by one course of a hundred and two courses of fifty lectures each. Courses of Anatomy, Chemistry, Materia Medica, Physiology, Practice of Medicine, Surgery, Midwifery, and General Pathology of not less than a hundred lectures are required, together with courses of fifty lectures on Medical Jurisprudence, Botany, and Zoology, with Comparative Anatomy. Besides these the curriculum includes six months' instruction in Practical Anatomy ; three months in Practical Chemistry ; three months in Practical Midwifery ; and six months' Clinical Medicine and Clinical Surgery. Two years' attendance on the practice of a General Hospital, three months spent in compounding medicines, and six months' attendance on private or public out-patient practice are also necessary. Two years of the four must be spent in

(a) In Scotland the term "links" is employed to signify downs or commons.

(b) We have been informed that the Hall, which has been open only one Session, and which at present does not contain accommodation for more than fifteen students, is immediately to be enlarged in consequence of the great number of applications for rooms. One of the most eminent members of the Scottish Peerage has already secured accommodation for two of his sons, and before the commencement of the Session there will probably not be a room left disengaged. A copy of the Hall regulations can be obtained from W. F. Ireland, Esq., Treasurer of "The St. Andrews College Hall Company," and Factor to the United College.

one of the following Universities and Colleges: St. Andrews, Glasgow, Aberdeen, Edinburgh, Oxford, Cambridge, Dublin, or in one of the Queen's Colleges of Belfast, Cork, or Galway. The remaining years may be passed in the same Universities and Colleges, or in the Medical Schools of London, or in the School of the College of Surgeons in Dublin, or under such private teachers as shall receive recognition from the University Court. The Commissioners, although thus admitting the element of private teaching, have taken care to protect the Scotch Universities, by enacting that no course given by a private teacher in Glasgow, Edinburgh, or Aberdeen, shall be recognised at St. Andrews if the fee for such course be less than the fee charged in the University of the town in which the teacher resides. The examinations for the Bachelor's degree will take place at the end of the second, third, and fourth years of education. On each examination the candidate pays a fee of five guineas, and should he take the degree of M.C. a further payment of five guineas is required. The latter degree is not to be conferred on any one who does not at the same time obtain the degree of M.B. The Doctorate may be obtained by any Bachelor of Medicine who has passed the age of twenty-four and who has been engaged during two years subsequently to his having passed as Bachelor, in attendance on a General Hospital, in private Practice, or in either of the public services. An examination in Greek and in Logic, or Moral Philosophy, and in some other branches of general education, has to be passed previously to passing as Doctor. The fee for the last degree is five guineas, exclusive of stamp duty and of the fifteen guineas before paid.

The regulations also provide that ten Medical Practitioners of acknowledged position and experience, above the age of forty, may be admitted yearly by examination to the Doctor's degree on payment of a fee of fifty guineas, unless such candidates have previously obtained the degree of Bachelor of Medicine.

THE WEEK.

DEATH FROM STARVATION.

Incidents every now and then occur, and obtain publicity in the public papers, which reflect but little credit on the present working of the system of parochial relief. It may be said, that in most cases these occurrences, when properly sifted, will be found to depend more on the perfunctory discharge of their duties by the officials employed than on the system itself; but to us it appears that the laws of poor-relief want that elasticity by which they may be made applicable to the varying circumstances of peculiar cases. The statutes by which food and shelter are provided at the public expense for the starving and the sick should not be framed in such a fashion as to place difficulties in the way of the suppliants, nor provide a refuge for every callous or negligent officer who chooses to make them a screen for his inattention. Here is a case in point: A poor widow named Matilda Martin, aged 65 years, who had up to the time of her misfortunes honestly supported herself by shoe-binding, from apparently no fault of her own, became at last unable to pay her rent. Her landlord turned her out of house and home. For several nights she slept in the streets, getting a little food in the day-time from her only friend, a woman named Parker. She applied to the relieving officer of St. Pancras for admission to the Workhouse, and was refused. Subsequently the relieving officer, Mr. Sadlier, called on Parker, to whom the starving woman had referred him, and gave her a loaf of bread. He said he would come again next day, but he did not. The feeble, old creature continued to wander about the neighbourhood, became seriously ill, was taken into the house of a neighbour, Mrs. Gaffer, where she was charitably kept for some days; was then removed, on the interference of a Medical man, to the St. Pancras Workhouse Infirmary, and finally died from hæmorrhage. At the inquest the principal witness, Mrs. Parker, said that—

"On the occasion of the deceased being taken to the Infirmary she saw the relieving officer, and asked him how it was he did not come again, as he had proposed to attend to her before, and he said it was not his business to go running about after people Witness believed the relieving officer was to blame for her death. The Coroner remarked that it was a pitiful story, and sent for Mr. Morrison, the master of St. Pancras Workhouse. Mr. Morrison knew nothing of the case whatever. The poor woman might have applied for relief and for admission from the relieving officer, but had not applied to him. It was his duty, as master of the Workhouse, to take in persons who may apply for a night's lodging, or to admit a woman of deceased's age in such a distressing state as described, but it was not his duty to go beyond that. Deceased had made no application to him, and he could not say whether she applied to Mr. Sadlier or not. The Coroner, in summing up, said the case at first appeared to seriously involve the relieving officer of that parish, but it seemed that deceased herself ought to have called upon Mr. Sadlier. The jury deliberated and returned a verdict of 'Death from rupture of a blood-vessel, accelerated by want and exposure;' with a strong recommendation to the parish authorities and to the public to reward and reimburse Parker and Gaffer for their praiseworthy humanity. The Coroner hoped the public press would take notice of the jury's recommendation, and he allowed the two women a small sum in excess of the amount usually given to witnesses."

It thus appears that in the largest metropolitan parish, unless a form of personal application be gone through, a sick, decrepid old woman may be allowed to die in the streets of cold and hunger, although her condition has been clearly represented to the "relieving" officer, "It is not his business to go running about after people." Deceased ought herself to have "called upon" Mr. Sadlier. This may be law, but if so, it is the direct antithesis of humanity.

APOPLEXY AND DRUNKENNESS.

Again we have to call attention to a case in which the common but fatal mistake of confounding apoplexy with drunkenness has been committed. In this instance it would seem that not only the ignorant night porter of a Workhouse, but a Police Surgeon saw the patient. Was the ordinary test of smell employed, or did the officials merely rely on the statement of the constable? At least, the diagnosis is not difficult by which so disastrous a blunder might be avoided. The following are the particulars:—

"On Tuesday an inquest was held, by Dr. Lankester, on the body of Mr. Thomas Timms Munton, aged 55, late a captain in the army, and possessor of several houses in Islington, who was found dying in St. John's-street West at midnight on Friday last. Police-constable Cole, 362 N, found the deceased lying on the pavement, and endeavoured to place him on his feet. He was, however, insensible. With assistance he removed him to the Islington Workhouse, after Dr. Mitchell, the Police Surgeon, had seen him, and there left him. On the following morning, between seven and eight o'clock, Dr. Ede, the Surgeon to the Workhouse, was sent for and attended deceased, and found him suffering from apoplexy and in a very low state. There were no marks of violence upon his body, no symptoms of garotting. He was in an apoplectic state, and died between five and six o'clock that evening. Dr. Ede had made a post-mortem examination, and he found that death resulted from sanguineous apoplexy. The jury expressed their astonishment that a man in a state of insensibility, and under the knowledge that he was in an apoplectic state, should be allowed to remain in the Workhouse without Medical attention until the following morning. Dr. Ede, in reply, said that Captain Munton (the deceased) was well known to him, but he was received at the Workhouse by the night porter, and, although he (Dr. Ede) was liable to be called at any time, according to instructions, the night porter, thinking it was one of those cases of drunkenness which frequently occurred, had neglected to send for him. However, if he had been present, he could not have

saved the life of the deceased. The jury thought that more prompt measures should in future be used with respect to the attendance of non-resident Medical men, and ultimately returned a verdict of 'Death from natural causes.'"

"LES MISÉRABLES." "L'INTESTIN DE LEVIATHAN." "LA TERRE APPAUVRIE PAR LA MER." DR. BRADY'S COMMITTEE ON SEWAGE OF TOWNS.

All the world knows that Victor Hugo has lately finished a huge novel, "Les Misérables," in which he has depicted all modern French society for the last half-century, with especial reference to those errors in politics or in governments or social customs which (as he says) create "miserables" in the heart of rich and luxurious communities,—men maddened with hunger and goaded to crime, and women forced to barter their honour for bread. The plot of the tale, or rather of the five tales rolled into one, is quite subordinate to the wonderful descriptions and to the philosophical discussion of matters which are treated of as sources of misery and crime; and it is a significant fact that the escape of one of the heroes of the tale through the sewers of Paris is made the occasion not only for a deeply interesting sketch of the history and construction of those sewers, but likewise for an emphatic denunciation of that waste of our wealth which is daily perpetrated by our lazy system of turning the contents of our sewers into the rivers. "Paris year by year throws twenty-five millions into the water. To what end? For none. With what idea? With none. To do what? Nothing. How? By its intestine. What is its intestine? The sewer." Science, continues Victor Hugo, is in vain endeavouring to teach the Europeans the value of human manure, the most precious of all fertilizers, by the aid of which the Chinese have preserved their land as fresh as it was in the time of Abraham. Yet we throw this source of wealth into the sea, and send ships to the uttermost parts of the earth to bring home the refuse of gulls and petrels. With our manure we might create health and plenty; we prefer fevers and famine. Great cities are like sieves,—gulfs that swallow the abundance of the surrounding plains, and return nothing. The sewers of Paris in the middle ages were the source of pestilence and haunts of crime; they were unfathomable mysteries. Henry the Second in the sixteenth century attempted a survey and failed. For centuries they were abandoned to themselves. Sometimes they overflowed with filthy inundations. Even in 1802 a fetid flood burst up from the sewer mouths, and defiled the Rue St. Honore, Rue St. Florentine, Rue des Champs Elysées, and Rue Mazarin. Paris was afraid of its sewers. No one ventured into the same except at certain few points, and for short distances. They presented to the populace a vivid idea of hell, haunted by living forms of murder, rapine, and pestilence. At last, in 1805, during one of the First Napoleon's rare visits to Paris, the Minister of the Interior came to his master's *levée*. The great man was surrounded by all his heroes, by representatives of that great army which had Marengo for a memory and Austerlitz for a future. "Sire," said the Minister, "I saw yesterday the boldest man in your empire." "Who is he," said the Emperor brusquely, "and what has he done?" "He wants to do something, Sire." "What?" "Explore the sewers of Paris." That man was Bruneseau. Bruneseau's task was long and terrible, and retarded by all kinds of difficulties. Many interesting relics and *souvenirs* came to light. The great sewer bore the date 1412, the epoch when the Brook of Ménilmentant was elevated to the dignity of Great Sewer of Paris; a transformation similar to that of a fresh country girl promoted to the town *pavé*. Ancient dungeons under the *Palais de Justice* were discovered, constructed in the sewer itself. Iron fetters still lurked in one of the cells. There was the skeleton of an orang-outang who had vanished from the *Jardin des Plantes* in 1804, and whose disappearance from the *Jardin* was in no small degree connected with the appearance of the Devil, who was incontestably proved to have visited certain houses in the Rue des Bernardins about that time. Jewels and coins were found in abundance, and amongst them a Huguenot medal in copper, having on one side a hog with a cardinal's hat, on the other a wolf crowned with a tiara. Hanging to a decayed hinge at the entrance to the great sewer, was found a large rag of fine muslin, with a coronet embroidered on one corner and the letters L. A. V. B. E. S. P. It was part of the winding-sheet of Marat, dragged by rats from his coffin in the Pantheon, and left fluttering in the sewer. Marat had had intrigues with the Marquise L'Aubespine. One sheet from her bed was in his possession, and being the finest linen at command, had been taken by the old women to enshroud his corpse. Seven years did Bruneseau labour, till he converted the old, crooked, dark, choked, and ruinous system of tunnels into straight, light, clean, whited sepulchres, fit models of Tartuffe. When he began the total length of sewers was but 23,300 mètres. Napoleon built 4804; Louis XVIII., 5709; Charles X., 10,836; Louis Philippe, 89,020; the Republic of 1848, 23,381; the existing Government, 70,500: altogether 60 leagues, or 226,610 mètres, the cost of which has averaged 200 francs the mètre.

THE CASE OF RICHARDSON *v.* POLLARD.

We have learned, on good authority, that the facts of this case are these:—Mr. Pollard was called upon to visit Mrs. Richardson, the plaintiff, about two o'clock a.m. on April 9, 1861. She was safely delivered of a fine living child after rather a difficult labour, at about half-past twelve the same day. In the course of three weeks or a month she was enabled to walk out. Afterwards he visited her two or three times while she was suffering from a gathered breast, from which she soon recovered and walked out again. He then saw nothing of her until June 27, when she called at his surgery and complained of a soreness in the pudenda. On the 29th he called at her house and examined her, and found the perineum swollen and ulcerated, and gave it as his opinion that an abscess had formed itself. He afterwards had a consultation with a Mr. Morley, a Surgeon from Blackburn, who is said to have given the same opinion at that time, although the report of the trial intimates that he swore that laceration, extending from the perineum to the rectum, took place at the time of the labour. We do not pretend to reconcile these discrepancies.

HOMICIDAL INSANITY.

The multiplication of murders which disgraces the present phase of society has its Medical as well as its moral and forensic aspect. Should some future Buckle attempt to account for them on the law of averages, he would require a higher ingenuity and greater faith in his theory than even were the attributes of his gifted predecessor. Whether such horrors are influenced or uninfluenced, promoted or diminished by the crowded civilisation of the present day, is a question which may be fairly discussed. Insanity and crime are different regions, but the border-line dividing them is so narrow that it is not always easy to discern it, and it may be fairly argued that, admitting the increase of insanity (a debatable point), it is to be expected that exceptional offences referable to it as a cause should increase also. But it must be remembered that there are two forms of homicidal insanity widely differing in their conditions, in their causation, and, we believe, in the treatment they demand at the hands of society. The one is where the criminal impulse is undeniably the result of mental disease; the other where, with no ostensible aberration of intellect, criminal thought has been harboured until it has become the dominant passion, overpowering the will, silencing

pity, and overcoming the fear of consequences. Such a condition as the latter is one of insanity; but as it has been voluntarily brought about, society, in our opinion, is not justified in admitting the plea as a bar to punishment. Nero was a madman, but who can doubt that he was a voluntary one, and that his madness was only the measure of his criminality. Conscience and will are the possessions of all men, and every man is responsible to his fellows for the degree in which he has hearkened to the one and used the other. It must be admitted, however, that cases do present themselves which it is very difficult to reduce either to the one or other category. We do not believe them to be so common as the writings of some alienist Physicians would lead us to suppose. They are instances of what has been termed the sudden impulsive form of homicidal monomania. Many of such impulses, we firmly maintain, are, in the first instance, entirely within the person's control, as much as are any other wrong impulses, and if he does not control and acquire a mastery over them he is responsible for the mastery they acquire over him. On the other hand, there are a few in which the homicidal impulse is the insanity; it at once and entirely subjugates all the other mental faculties, and renders the person entirely irresponsible. But such instances are comparatively rare, and to prove the existence of this condition in a given case it is necessary to show an entire want of motive, real or assignable, and an entire absence of any attempt at concealment and of any measures taken to prevent the consequences of the crime. The presence of either of these is, unless other valid proof of insanity be adduced, fatal to the theory.—A case of great interest has lately been published by Dr. Yellowlees, of Morningside, under the title of "Homicidal Mania, a biography." The subject of the memoir was one William Smith, who for years was perhaps the most dangerous lunatic in Scotland. He was originally a carpenter and joiner, but afterwards turned printer, publisher, author, and musician. There can be no doubt that his mental faculties were originally of a superior order. He was of an extremely "touchy" disposition, and was constantly trying to obtain redress at the hands of the law for petty annoyances from different persons. Failing to obtain what he considered justice, he gave himself up to the passion of revenge, and the remainder of his long life was spent in endeavouring to take the life of every person with whom he came in contact. Besides his homicidal propensities there was in the latter part of his career other clear evidence of insanity and brain disease. The autopsy revealed three distinct softenings of the brain, one about the size of a filbert in the right corpus striatum, another under the floor of the posterior cornu of the right lateral ventricle, and a third in the left thalamus opticus. There was besides an atheromatous condition of all the cerebral arteries, and thickening and opacity of the arachnoid. Three years before he died, he had a slight apoplectic attack. The most remarkable fact that the examination revealed was a diminution in the size of the head. "On comparing the cast of the head taken after death with another taken seventeen years before, there was found to be a very remarkable difference between them, not in form only, but also in size, the head having become less during these seventeen years by an amount equal to at least twelve cubic inches." The confirmed insanity of the case, however, does not entirely disprove that at the outset Smith was a responsible agent. The facts that he at first attempted to obtain legal redress, that he was clearly aware of the nature of the crimes he contemplated, and of their consequences, and that at the Asylum in which he was first confined he managed to behave so well that he was liberated as sane, might reasonably be held to prove such a perception of right and wrong, and such a power of will as would constitute responsibility. It even might be suggested that the brain disease in the first instance was as much the result as the cause of his morbid mental excitement. If undue intellectual activity will induce cerebral affection, it would be hard to prove that undue activity of an emotional or moral character may not have the same effect. Whatever view, however, be taken of the case, it was in many respects a peculiar one, and the Profession is much indebted to Dr. Yellowlees for the very able and full account of it he has drawn up. There can be no doubt that the plea of insanity has been, on the one hand, sometimes wrongly disregarded; on the other, as wrongly admitted. An instance of the latter kind appears lately to have occurred, and as it furnishes an admirable comment on the recent attempt to exclude the evidence of Medical men in cases of madness, we subjoin some of its particulars. A discharged soldier, named James Roberts, living at Bristol, murdered his child when in a state of semi-intoxication, by beating it about the head with a broken poker. At the trial, the father and mother of the prisoner asserted the existence of an hereditary predisposition to madness derived from the grandfather, and declared that the prisoner was considered mad by his family and friends.

"Mr. Justice Blackburn, in summing up the case to the jury, said that every man was presumed to be sane until the contrary was proved, and that to establish a defence on the ground of insanity it must be clearly proved that at the time of committing the act the accused was labouring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or not to know that he was doing wrong. *His Lordship observed that the evidence of insanity in this case was but slight, and it was much to be regretted that Dr. Mayor and other Medical men who had been referred to were not present. Their absence was much to be regretted, but that was probably owing to the poverty of the prisoner.* His Lordship then called the attention of the jury to the evidence, and finally left it to them to say whether or not the prisoner murdered the child, or whether they were satisfied by the evidence that he was not guilty on the ground of insanity. The jury retired to consider their verdict, and on their return into court they found the prisoner 'Not Guilty on the ground of insanity.'"

Since the trial, however, the Secretary of State has called upon the visiting justices to sent him a certificate of the prisoner's insanity, in order to his removal to some lunatic asylum. He was consequently examined by the Gaol Surgeon, Dr. Bleeck, and subsequently by that gentleman in conjunction with Dr. Lyon, and it turns out that neither of them has been able to discover the slightest symptom of lunacy. The consequence is that, instead of a certificate being forwarded confirming the view of the jury, the magistrates have been compelled to send off one asserting, almost in direct terms, that Roberts is in full possession of his senses. It was known at Gloucester that the verdict of the jury did not commend itself to the judgment of the presiding Judge.

Professors Rokitansky and Hyrtl.—These two distinguished Austrian Professors have just had conferred upon them the title of Hofrath (Court Councillor). This, we believe, has never been conferred upon any Medical man since the days of Peter Frank.

Mr. Bullock Webster, writing to the *Times* from Algiers, on the subject of marriages of consanguinity, confirms the well-known facts of the influence of a first impregnation on the character of all succeeding offspring by the same mother. "The system," he says, "of breeding in and in, as far as my experience goes, even in what may be considered the finest bloods, has always produced greater aptitude to fat, small bone, and tendency to disease. Clever physiologists may account for this, but I should like to know how they can explain this one significant fact, viz., that an Arab mare that has once had a colt by a half-bred horse can never again breed a pure Arab; the colts, even after any number of years, always taking, to some extent, after the horse she first bred by. The same rule holds good with regard to all our breeds of short horns or Hereford cattle, Leicester or Southdown sheep, Fisher Hobbs' pigs or his pointers."

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

It is my intention now to allude to the contents of some of the cases of the manufacturers of artificial limbs; and first to those exhibited by Mr. Masters. All the appliances shown by this maker are remarkable for the ingenuity displayed in their contrivance, and for the very great superiority of their manufacture; indeed, in the latter respect, I am inclined to think that they are the best specimens of the kind in the whole Exhibition. It is difficult to imagine that the manufacture of artificial limbs can be carried much further towards perfection than it has been by Mr. Masters.

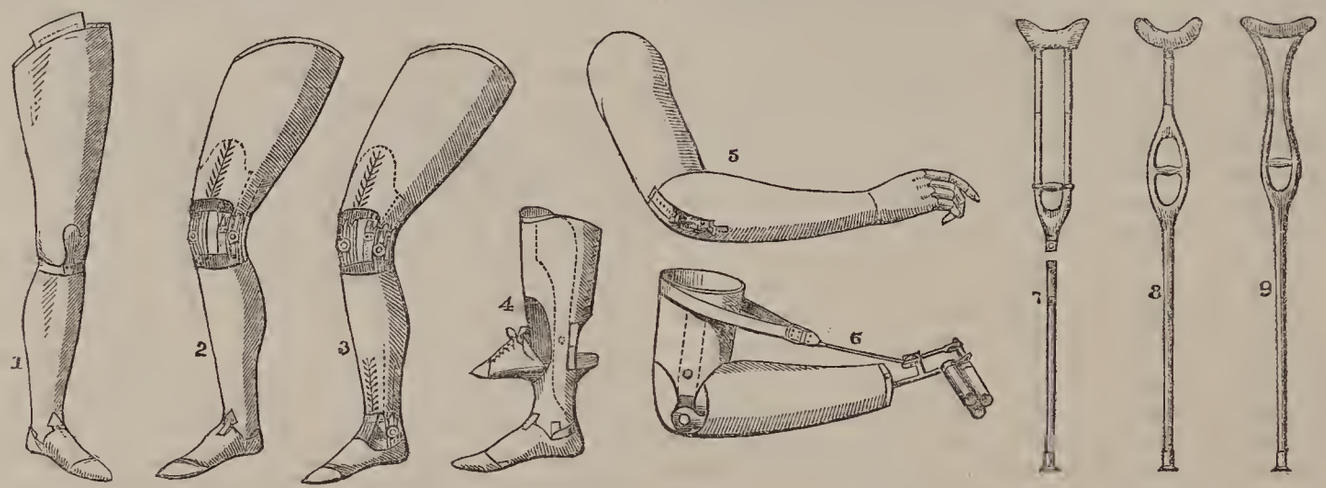


Fig. 1 represents a leg for cases of amputation above the knee, which is constructed on Pott's principle, with the addition of two improvements added by Mr. Masters,—viz., the knee-spring and the flexible toe. The knee-spring, when the knee is at an angle of about 20°, elevates the ball of the great toe, and frees the foot from the ground when it is advanced in walking; and when the limb is flexed (as in the sitting posture) it loses its power by being brought close, and even into, the bolt of the knee-joint. There has been much dispute among makers of artificial legs as to the necessity for a spring in the knee, but it seems clear that those which do not possess it must induce a slower progression for the wearer, and, on the other hand, that if the spring employed be too strong, such an amount of force is necessary to flex the limb as would speedily exhaust the patient. Hence arises the importance of regulating carefully the strength of the spring whenever it is employed. The second improvement is the flexible toe, which is worthy of notice. The wooden joint and steel bolt can thus be dispensed with, so that the weight of the whole instrument is diminished, and a fastidious wearer can have the satisfaction of observing that wrinkles are produced in the boot covering the artificial foot, as well as in that worn on the sound side. This limb weighs only 2 lb. 7 oz., but, nevertheless, is capable of supporting the entire weight of an adult man.

Fig. 2 is an illustration of a leg for cases of amputation below the knee, which is furnished with Masters' patent perforated concave hinge, the advantages of which are, that it is lighter and stronger than that usually employed, that the condyles of the femur are received somewhat into its concavity, and it is thus allowed to come into close proximity to the limb, and that by an ingenious arrangement in the bolt the extent of surface on which the hinge works is much greater than usual, and hence there is much less chance of its wearing by friction. This limb weighs 3 lb. 1 oz.

An artificial foot for cases of Syme's operation is shown at Fig. 3. This instrument is furnished with Mr. Masters' patent hinge at the knee and ankle, and the limb takes its bearing above the knee, an arrangement by means of which vertical action is obtained in the foot, without which ease and rapidity of progression cannot be obtained.

Fig. 4 represents an artificial foot for a short leg, which is highly ingenious. In this contrivance the articulation is made to correspond in position with that of the longer limb, and the foot being received into a convenient kind of slipper, all motion of the natural ankle-joint is prevented by the rigidity of the apparatus at that spot. By this means the movement is transferred to the artificial joint below, and the patient is enabled to walk easily and smoothly.

An artificial arm for cases of amputation above the elbow-joint is shown at Fig. 5. It possesses three improvements made by Mr. Masters, viz.:—Firstly, the jointed spring wrist plate, the spring of which is always flush with the outline of the arm, and by means of which spring the hand can be easily detached from the arm, and any other instrument inserted; secondly, the elbow-joint is very light, and of better shape than when the old ball-and-socket joint is employed; and thirdly, the stop-work connected with the elbow-joint, which is extremely ingenious. By means of this latter the wearer can lock the elbow-joint at any angle he chooses, an advantage of no small importance, and the joint can be freed without difficulty, even with the coat on. This mechanism is, I believe, quite new, and Mr. Masters deserves high praise for its ingenuity. The arm weighs 1 lb. 1 oz. I should add that the mechanism of the joints of the fingers is beautiful, and whatever may be the angle at which they are placed, there is never any uneven projection on them.

An arm for cases of amputation below the elbow, to which an appliance which enables the wearer to sew, is represented in Fig. 6. This invention of Mr. Masters, is very ingenious, and consists of three fingers made of wood, as shown in the illustration, the uppermost of which is kept firmly in contact with the others by means of a spring, and thus holds the fabric which is to be sewn. At the end of the uppermost finger is a lever, to which a band is attached that passes round the upper arm; by slightly extending the limb the spring is depressed, and the "work" can be easily shifted.

In the crutch shown in Fig. 7 there is a joint in the centre for the sake of portability, and the principle of the sliding telescope tube is employed in the construction of the instrument. That shown in Fig. 8 is furnished with a spring and a revolving head, which allows a pleasant amount of oscillation of the whole body. This contrivance is due to an idea first entertained by a Spanish gentleman. Another form of crutch is shown at Fig. 9. Of these three, that represented by Fig. 8 is decidedly the best.

In addition to the instruments already described, Mr. Masters exhibits six other artificial legs, among which is the common pin-leg, and a numerous collection of contrivances for use with an artificial hand. In concluding my observations on Mr. Masters' contribution to the Exhibition, I must again say that he is decidedly deserving of great praise, both for his ingenuity and the superiority of his manufacture.

Mr. Grossmith, of Fleet-street, has also made some important improvements in the construction of artificial limbs, with the view of obtaining security and comfort for the wearer, as well as simplicity of action in the instrument.

A leg suited to cases of amputation below the knee is shown in Fig. 10, which illustrates Mr. Grossmith's method of obtaining artificial action. The patient kneels on a thin plate of metal, which fits accurately to the form of the knee, and which is supported posteriorly by a rod which passes down through the leg to the foot. The bending of the knee-joint by the patient in walking causes the knee-plate to revolve, and thereby exerts so powerful a pressure on the spiral springs of the rod, that the lower part of the leg is quickly

Fig. 10.

thrown forward, ready for the step, without the exertion of swinging it, which is required by the ordinary tendon leg. When the knee is bent, as in the sitting posture, the knee-plate revolves so far as to cause the action-rod to assume a position identical with the axis of the leg, and, by means of a bolt, the joint is rendered immoveable until the patient again rises from his seat. (Fig. 11.) Mr. Grossmith uses the tendon bands, passing from the heel to the knee (as in

Fig. 11.

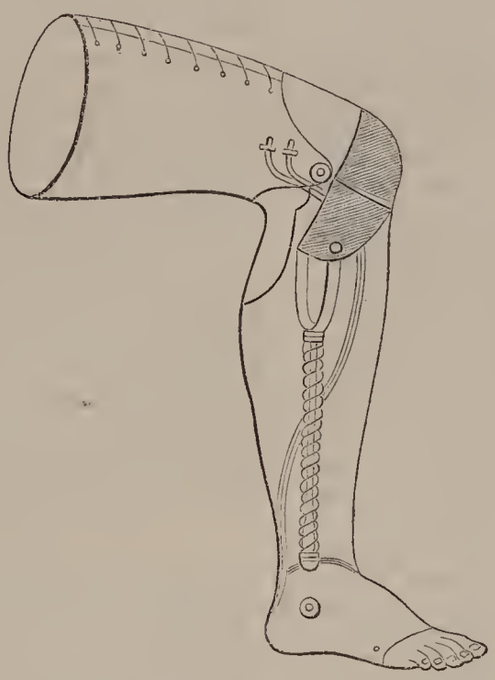
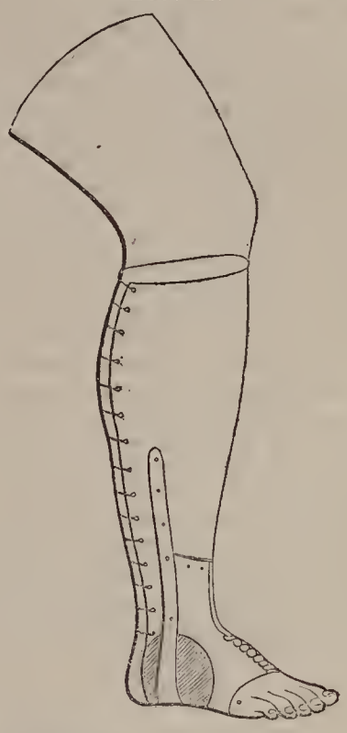


Fig. 12.



the ordinary tendon leg), for the purpose of throwing back the action-rod at a certain point. This principle was introduced by Mr. Grossmith at the time of the French Exhibition in 1855, and it obtained for him then, as now, the reward of a medal.

The same exhibitor has also recently manufactured a new apparatus for patients who have undergone Chopart's operation (Fig. 12). A neat appearance of the boot has always been difficult to produce, for the heel and instep usually become thickened after the operation. Mr. Grossmith solves the question by fitting a thin silver plate to the anterior portion of the stump, which is rivetted to steel supports that pass up the leg, and forms a framework of great strength to sustain the lever pressure of the ball of the foot, which becomes very great as the weight of the patient passes on to the toe-joint.

Mr. Grossmith also exhibits a new apparatus for cases of Syme's ankle-joint operation, and a good, serviceable, cheap leg for those whose means are limited. The joints are rendered waterproof, the mechanism is quite simple, and he guarantees its thorough durability.

An ingenious though rather clumsy artificial leg is exhibited by Sundby, of Christiania. The stump is received into a socket, formed of many moveable and elastic pieces of the wood of the plane tree, which are kept together by circular straps. The advantages which this artificial limb seems to have are its elasticity and lightness; however, I should hardly consider it to be so comfortable as a well-fitting socket of the ordinary kind.

Several good specimens of stop-joint legs are exhibited by the French makers, but I have seen nothing in this branch of the trade among the contributions furnished by that country that calls for especial description. Many other English makers also show artificial limbs, the majority of which are of excellent manufacture, but do not present any novelty in principle. Mr. Pratt, Mr. Walters, Mr. Bigg, Messrs. Sparks, Mr. Ernst, Mr. Sillis, Mr. Welton, and others, exhibit artificial arms and legs, to which I can but give a passing allusion. The same thing may be said of nearly all of them, viz., that they combine the proper amount of strength with lightness, and that in manufacture they leave little or nothing to be desired.

London Institution.—A course of Six Lectures on "The Zoology of Warmblooded Vetebrata; being a description of the characters and classification of the classes *Mammalia* and *Aves*," will be delivered at the London Institution during the ensuing Session, by Mr. C. Carter Blake.

REVIEWS.

A Treatise on Ventilation, Natural and Artificial. By Robert Ritchie, C.E., Associate of the Institution of Civil Engineers, London; Past Vice-President of the Royal Scottish Society of Arts, etc. London: Lockwood and Co. 1862.

This is a really useful book, and its utility depends as much as anything upon the absence of anything like a crotchet being perceptible throughout the volume,—blinding the writer to the merits of the inventions of other people. The only approach to one is his strict adherence to the principle that whatever method of ventilation is to be proposed for any room or building, the foul air, warmed as it is by respiration, by the bodies of the occupants and by combustion, as it naturally rises to the ceiling, so should find its outlet there, and that the fresh air should be admitted either near the floor, or, at any rate, not near the ceiling, where, in its descent, it must carry with it a portion of that which it is desirable not to return within the sphere of respiration. There can be no question that it is only by an unprejudiced consideration of all the methods which have been proposed, and by balancing their advantages and disadvantages, that the proper plan to adopt in any given case can ever be arrived at.

The subject is discussed in five chapters. The first is devoted to a general consideration of ventilation as a necessity of health. In the second he considers ventilation by spontaneous or natural action, that is to say, by the induction of a current in taking advantage of the natural tendency of heated air to ascend, insisting, however, upon what is often most stupidly overlooked by builders, the necessity for a provision not only for the exit of foul air, but for the entrance of fresh. In domestic buildings, where but few people are assembled, Mr. Ritchie seems to think that natural or spontaneous ventilation by some one of the methods he describes may be sufficient for comfort and salubrity. He gives various illustrations of natural ventilation, and describes fully a plan by which he effectually ventilated a private dwelling-house. "It was a self-contained house in an open situation, and consisted of three floors above the street, and the basement story beneath. There was a current of eight square feet or section of atmospheric air under regulation, introduced into the house by dry air openings to the prevailing points of the wind. This supply of air was in winter moderately warmed, and entered the principal staircase at a temperature of about 70° F., which was found to be sufficient to keep the staircase and passage at 60° F. even in severe weather. The different rooms of the

house were thus supplied with warmed air, each room drawing its supply of air from the staircase by masked openings over and under the door,—the area of these openings being equal to the sum of the areas of the throat of the chimney flue and of the ventilating flue which communicated with, and carried off from, the void space over the ceiling the vitiated air arising from lamps or the crowded state of the rooms. These arrangements were not intended to supersede in winter the use of open fire-places, but were auxiliary to it,—the volume of air entering the staircase being sufficient to supply all demand from the chimneys and ventilating flues without any great risk of back-smoke by one chimney borrowing from the other, or of drawing in the external air through chinks—evils very frequently found in houses where there is no provision made for admitting fresh air to supply the demand of the chimney. Besides the ordinary ventilation by the fire-places, fire-clay tubes in the walls, connected with the spaces over the ceilings of the rooms, conveyed away the vitiated air of lamps, gas, respired air, etc., as a slit or opening in the mouldings of the plaster works one and a-half inch wide, all round each room, but which was not visible from below, admitted the heated air into the space above the ceiling, which communicated with an ascending chimney flue of sufficient size and proportion to the area of the room to ensure an ascending current. These escape flues terminated above the ceiling of the attics, under the slates of the roof. The action of the escape flues was regulated or was suspended when required by means of a register on the orifice of each, which was operated on by an index in each room."—P. 89. This plan was found to act efficiently.

The third and succeeding chapters relate to forced ventilation as effected by the agency of fire, heat, or by mechanical agents. Where a motor power exists, such as steam power or water power, at a factory, a public building, a mine or in a steam-ship, the fan-blower and screw present simple and readily available agents to produce a determinate movement of the air, which can be easily regulated and applied advantageously both for impelling air inwards or extracting it outwards.

We cannot close this review without a word in commendation of the typography, which is unusually clear and agreeable to the eye. Those who read extensively can appreciate the advantages thus conferred. The printers are Hardie and Co., of Edinburgh.

On Domestic Animals in Health and Disease. Second Division—Organs of Circulation and Respiration. By John Gamgee, Principal of the New Veterinary College, Edinburgh. Edinburgh: Jack. 1862.

This volume treats of the physiology and pathology of the pulmonary and circulating organs in those animals which are the care of the Veterinary Surgeon, and its perusal indicates to us the scientific position which Veterinary Medicine has assumed in the present day. Founded upon an accurate pathology, or one which with the aid of human pathology its Professors are striving to render daily more accurate, we find every modern appliance which we use to assist our diagnosis liberally borrowed by the accomplished Veterinarian. On the other hand, we gladly acknowledge the light which the study of health and disease in the lower animals has already shed, and is likely still more to throw upon our own path. In reading Mr. Gamgee's book we are made conscious of this in almost every page. Many of the observers whom he quotes are men whose names are as household words to the modern student of human physiology and pathology. Simply stating, then, that this work of Mr. Gamgee's may be read with advantage by the members of our own Profession, who, by the way, may sometimes find it to their interest to be independent of the Veterinary Surgeon, we shall refer our readers specially to an interesting chapter upon the Contagious Pleuro-pneumonia of Cattle, which for some years past has been committing extensive ravages, especially in the cowsheds of our large towns. Mr. Gamgee insists strongly upon its origin in contagion, asserting that the most filthy sheds have remained free from attacks so long as the owner has exercised a judicious caution in his purchases. He dwells very properly, too, upon the carelessness of the Legislature in permitting the sale of diseased animals in the public markets, etc., where they become sources of contagion to the healthy animals brought thither at the same time, and he lays down a series of rules for the prevention of the disease, which appear to be well considered, and, so far as we can judge, quite practicable. This is, at any rate, a subject which interests all of us, and especially those who hold the position of Medical Officers of Health.

Statistics of Insanity; embracing a Report of Bethlem Hospital, from 1846 *to* 1860 *inclusive.* By W. Charles Hood, M.D., Resident Physician of Bethlem Hospital, etc. London: 1862. Pp. 122.

Extending over a period of fifteen years, and relating to patients presumed to be curable, amounting in number to 3668, these statistics possess a commensurate value. Dr. Hood hopes "that the day is not far distant when a uniform plan throughout the County Asylums may be recommended by the Commissioners in Lunacy, and carried into execution by the Committees of Management." There is a vast mass of valuable information practically lost in consequence of this want of uniformity. The etiology of insanity especially requires more careful investigation than it has yet received. At present the tables in Reports of Asylums take cognizance only of apparent and assigned causes. The last link in a series of disordering conditions is seized and tabulated as the cause of the mental disease; or some prominent disturbance of the constitution, which has preceded the malady, is selected as its cause. At the same time, none know better than the psychical Physician that tables thus construed can at the best be only partially true.

Contributions to the Knowledge of Osteomalacia. By Dr. C. C. F. Litzmann, Ordinary Public Professor of Medicine and Midwifery, and Director of the Lying-in Institution at the University of Kiel. Translated from the German, by J. Matthews Duncan, M.D., F.R.C.P.E., etc. Edinburgh: Oliver and Boyd. 1862. Pp. 41.

This pamphlet is a reprint from the *Edinburgh Medical Journal*, and the paper is of such value as to warrant Dr. Duncan in producing his translation in a separate form. The bibliography as furnished in the last chapter would alone do this. The subject of osteomalacia is first discussed generally in its pathological aspects, and thus the osteomalacia of child-bearing women, and the disease as it occurs unconnected with child-bearing, are separately considered. Of 131 cases mentioned in the bibliographical references, 85 were women who became ill either during pregnancy or in child-bed, or in whom, at least, the course of the disease was modified by pregnancy, labour, and child-bed; while of the remaining 46 only 11 were of the male sex. The facts are concisely stated, and the reader is put in possession, if not of all that has been written upon the subject, yet of all main points ascertained respecting the disease which it is important every Practitioner should know.

An Effectual and Simple Remedy for Scarlet Fever and Measles, with an Appendix of Cases. By Charles Witt, Member of the Royal College of Physicians, etc. Davies. 1862. Pp. 31. Third Edition.

It is generally known now that the remedy alluded to is the carbonate of ammonia, in doses of from three to seven grains, and administered, according to the severity of the case, either every three or four hours, or every hour. The author impresses the importance of commencing its use as soon as the first symptoms appear, and of limiting the drink of the patient to water or non-acid liquids. He says in the preface to this edition:—

"Since the first issue of this pamphlet, very few cases of failure have been communicated to the author, and these have been admitted by the relators to be exceptional. On the other hand, many witnesses have declared their satisfaction and surprise at the beneficial effects which have so speedily resulted from the use of this simple medicine."

Novel Advertisement.—The *Sardinian Gazetta Medica Italiana* of August 25 contains the following advertisement, which, at all events, has novelty to recommend it:—"A reward of 300 lire (about £12) will be given to any Surgeon willing to undertake to replace the arm of a youth 16 years of age, who dislocated it on the 14th January, 1862. Signed, Bottasi, retired Major.— Turin, August 20."

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON A CASE OF INTESTINAL HÆMORRHAGE AND GANGRENE DUE TO EMBOLUS OF THE MESENTERIC ARTERY.

By Professor OPPOLZER.

A MAN, aged 50, died after copious intestinal hæmorrhage and greenish vomiting had continued for some days. The whole of the intestinal tract, from the transverse portion of the duodenum to about the middle of the transverse colon, was found to be more or less gangrenous. The remainder of the canal only exhibited signs of catarrh, tumefaction of the mucous membrane, and a dark colour of the solitary glands. Observing that the extent of the destruction of the tube exactly corresponded with that of the nutritive province of the superior mesenteric artery, Professor Oppolzer suspected that disturbance in the circulation through that vessel had given rise to the changes observed. On examination, its short trunk was found to be completely obstructed by a firmish, pale-red coagulum, two inches in length, which closely adhered to the walls of the vessel, and was continued by more recent additions into two of the branches of the vessel. Below this there was a free space, and then a similar coagulum, whence extended clots into all the other branches, so that the cavities of these were completely obstructed. Fluid blood was still found in the smaller branches, but some of these were entirely empty. Consequent upon the obstruction, an inflammatory process had been set up, as manifested by the products found amidst the discharges, and a necrotic condition of the mucous membrane rapidly ensued. As further consequences of the obstructed circulation, there were abundant intestinal hæmorrhage, serous effusion into the peritoneum, and infiltration into, with great thickening of the walls of, the intestine.

As to the question whether the coagulation of the blood in the arteries or the gangrene was the primary occurrence, it is to be observed that in obstruction produced in consequence of the latter, the coagulation commences in the smallest ramifications, and gradually proceeds from these towards the trunk of the vessel. This is well exemplified in congelation. The coagulum in the present case, then, being a primary occurrence, did it arise from local cause, or was it the consequence of embolus? Similar coagula existed in the auricles, and the possibility of a portion of these being torn off and carried from the left auricle to the mesenteric artery is obvious. The strongest proof that the coagula were not of a local origin, is the fact that the walls of the vessel were perfectly normal in appearance. The condition and position of the plugs betokened that they were not the result of a thrombosis, but had come from a distance. Thus, the trunk contained a large plug, and after an empty space there was a smaller plug, which had either separated from the larger or, on account of its smaller size, had penetrated farther. The suddenness of the occurrence of the symptoms, and the rapidity of the course of the affection, are best explained by the supposition of embolus.—*Allgemein Wiener Med. Zeitschrift*, Nos. 9, 10, 11, and 12.

EXCERPTA MINORA.

Extirpation of Bubo.—Dr. Carl Meyer related a case to the Berlin Medical Society in which, after a bubo having several fistulous openings had been treated for several weeks without success, he made an incision four inches in length, and passing the finger down to the *lamina cribrosa*, by its means brought out the whole glandular mass. He had employed this means in six cases, and has found the duration of the treatment much shortened by the procedure, inasmuch as the longest period required was thirty-five days, while in one case twenty-four sufficed. There was no fear of this extirpation injuring the lymphatic vessels, as of these there are a superficial and deep-seated layer, each capable of acting vicariously for the other. In two of the cases œdema of the penis followed the operation.—*Deutsche Klinik*, 1861, No. 17.

Treatment of Pityriasis of the Scalp.—M. Hardy, after having had the hairs cut off, commences with emollient lotions or ointments so as to overcome the dryness of the skin. Soon afterwards he endeavours to modify the cutaneous secretion by the use of soapy solutions, which he prefers to solution of carbonate of soda or potass. But the means which best succeeds in his hands is the employment of sulphur in the form of baths and ointments; of these last he prefers that made of one part of flowers of sulphur to thirty of lard; another good application is one part of nitric acid to thirty of lard. Preparations of sulphur are at the same time given internally, and a non-stimulant regimen is enforced, all high-seasoned food being prohibited.—*Gazette Med.*, No. 11.

Poisoning by the Œnanthe Crocata.—M. Baume relates two interesting examples of this occurrence. Eight inmates of the Quimper Asylum were engaged in improving a new piece of ground, when one of them was brought back to the Asylum pulseless and convulsed, and died in a few minutes, not more than half an hour having elapsed between the appearance of the first symptoms and death. At the autopsy there was much injection of the meninges and of the brain, the latter being remarkably firm. The lungs were gorged with black blood at their dependent parts. The spleen and kidneys were distended from the venous stasis. The stomach and intestines contained the remains of a white root reduced to pulp, but in so small a quantity as to cause surprise at the rapidity with which death took place,—the patient having left the Asylum two hours before strong and hearty. One of his companions also was found to have a feeble pulse, pale face, and dilated pupils. He was enabled to walk back, and came reeling into the Asylum. Emetics and purgatives caused the removal of a portion of the white root, strong coffee and iodide of potassium being afterwards administered. He had eaten a portion of the root about the size of an ordinary cork, this root proving to be the *Œnanthe crocata*, or hemlock water dropwort.—*Archives des Mal Mentales*, 1861, No. 3.

GENERAL CORRESPONDENCE.

VERTICAL DISLOCATION OF THE PATELLA.

Letter from Dr. William Munro.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having seen several articles in your Journal, describing vertical dislocation of the patella, its comparatively rare occurrence, and its mode of reduction, I beg you to publish the following case:—

T. B., a drummer in the 93rd Highlanders, in running across the Barrack square in 1858, slipped and fell on his right knee. The inner edge of the patella came in contact with a stone, and was dislocated, the outer edge being thrown outwards and forwards; the inner thrown backwards.

He was brought to me within one minute of the accident, and I reduced the bone to its proper position with very little difficulty, in the following manner:—

The leg was in an extended position, I placed my left hand on lower third of femur and pressed backwards, while an assistant, with his hand on upper third of tibia, also pressed backwards; with my right hand I pressed firmly on the averted edge of patella outwards and backwards. The bone slipped suddenly into its place.

The limb was kept quiet for a few days; no inflammation followed, and within a week the man was at his duty. He is still with the regiment, and feels no inconvenience from the accident.

I am, &c.

Peshawur, June 9. WILLIAM MUNRO, M.D.

DIPHTHERIA AT SEA.

Letter from Mr. Hugh Norris.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am inclined to think the following case of diphtheria not unworthy of record. The subject is a friend of mine, and I learnt the facts from himself:—

F. A., an officer in the merchant service, was attacked by the above complaint sixty miles off the Cape on a return voyage from Australia, being at the time two months out from Melbourne. The disease was very severe, and was succeeded by loss of voice and general paralysis of the limbs, which lasted to a greater or less degree during the remainder of the voyage (two months) and for nearly three months afterwards. He is now fast recovering his usual health and strength.

The singularity of diphtheria occurring to an individual so isolated, and to him alone in the ship, has induced me to call the attention of the Profession to the case, as I think it may prove an important point in the etiology of the disease.

I am, &c.

August, 1862. Hugh Norris, L.R.C.P. Edin.

P.S.—The weather was exceedingly hot, but the ship was not unusually foul; there was no particular amount of illness on board during the voyage; my friend's duty did not call him below more than others, nor is he aware that diphtheria was prevalent at Melbourne during his stay there.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

Monday, July 7.

Dr. Babington, F.R.S., President, in the Chair.

A Communication, by Dr. Archibald Smith, was read on

DIPHTHERIA IN PERU.

The following important information on the occurrence of diphtheria in Peru had been communicated by Dr. Archibald Smith in a note to Mr. Radcliffe since the previous meeting. Dr. Smith has known Peru since 1825, but he had never heard of or seen diphtheria there as an epidemic until 1858-59. In the former of these years the disease proved very fatal among children; in 1859 it was less prevalent, and consequently attended with fewer deaths. The affection was superinduced on the following epidemic sequence, as noticed in Lima, the capital of Peru. Lima is situated six miles from the sea, at an elevation of 500 feet, with a winter temperature of 60° to 64° F. as minimum, and summer heat of 80° to 84° as maximum. Atmosphere generally humid, and climate relaxing. Barometer all the year, 29½ to 29¾. Malarial and pythogenetic causes are always fertile causes of disease, such as intermittent, remittent, and typhoid fevers. The sewage gas is often extremely offensive, and it is by no means uncommon to see the intermittent pass into the declared typhoid form, while pure typhus *per se* is seldom seen in civil practice, judging from Dr. Smith's own experience. In 1851 reigned in August and September a catarrhal fever, or influenza, which extended all over Peru. 1852. A mild adynamic fever, with a red cutaneous eruption, which attacked all but destroyed none, like the "Polka" of Brazil, which Dr. Lallemand called the first stadium of yellow fever. 1853. What may be called an epidemic of nascent yellow fever, terminating with a few cases of black vomit, by end of autumn. 1854. Yellow fever in aggravated form. 1855. No yellow fever, but epidemic intermittents. 1856. Intermittents disappear, and the yellow fever returns. 1857. In August and September catarrhal influenza. 1858. Diphtheria as an epidemic. 1859. Diphtheria on the wane, and small-pox prevalent. "This last year," remarks Dr. Smith, "on the third or fourth day of high fever I was called to see a youth, when I observed the false membrane in the throat and fauces, and next morning on return found the diphtheria vanished, and the eruption of small-pox fairly established."

HIRSCH'S RESEARCHES IN HISTORICO-GEOGRAPHICAL PATHOLOGY.

Dr. Weber read an analytic summary of the important work of Dr. Hirsch, of Dantzic, entitled "Handbuch der Historisch Geographischen Pathologie," and which the author has dedicated to the London Epidemiological Society, "in acknowledgement of their efforts and services in the promotion of public hygiene." The first volume was published in 1859, and the first part of the second volume last year. It is the first systematic attempt to treat in a worthy manner the great and difficult subject of the chronological and geographical distribution of all epidemic and endemic diseases throughout the world. The amount of research among the Medical literature of Europe generally, displayed by the author, is not surpassed by that of Dr. Copland himself in his herculean task, and the impartiality and discriminating judgment are on a par with the erudition. Dr. Weber concluded his summary by pointing out the great desirableness of having an English translation of Dr. Hirsch's work, and the especial duty of English Medical men availing themselves of the singularly favourable opportunities which they enjoy above their Professional brethren of any other country in investigating epidemic diseases in the numerous and widely-dispersed dependencies of the British Empire.

A Communication was also read, from Dr. S. Hall, of Hobart Town,

ON THE VITAL STATISTICS OF TASMANIA IN 1861.

The total registered deaths in the colony during the year were 1472, to which must be added the deaths of seven convicts not stated in the public records. As the population of Tasmania on April 7, 1861, amounted to 89,977, the death-rate that year would be a trifle over 16 per thousand of the inhabitants, or one death in about 60 or 61 individuals. Among the exclusively rural population, estimated at between 53,000 and 54,000, the death-rate did not much exceed 11 per thousand; but even this low rate is above what it ought to be, as there is a considerable number of preventible deaths constantly occurring from the neglect of sanitary precepts. The proportion of children in the population of Tasmania is much greater than in England and other European countries. According to the census of last year, the children under 15 years of age constituted about 38 per cent. of the whole population, while in England, at the census of 1851, this proportion was only 35, and in France it did not exceed 30 per cent. Of the 1479 deaths, 323 were in children under 1 year; 124 occurred between 1 and 2 years; 53 between 2 and 3; 22 between 3 and 4; 40 between 4 and 5; and 67 between 5 and 10 years. The three last groups were all above the usual proportions, owing to the prevalance of measles, which had not visited Hobart Town for six or seven years previously. Of the deaths in middle and advanced life, 28 occurred between 80 and 90 years of age; 3 between 90 and 100; and 2 in persons upwards of 100. Everything seems to indicate a great salubrity of climate. The total registered births in the colony during 1861 were 3207, but as many escape registration, Dr. Hall estimates the natural increase of the population at nearly 4000. In 1861 the rainfall, a trifle over 28 inches, exceeded the mean of the twenty previous years by upwards of 6 inches.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, August 28, 1862:—

James Duce, Wednesbury, Staffordshire; George Mowat, Plymouth; John James Flinn, Liverpool; David Watkin Hughes, Wymondham; Francis Trimmer, Gloucester; John Abernethy Hicks, Emsworth, Hants.

The following gentlemen also on the same day passed their First Examination:—

James Chapman, Grosvenor-place School; Frederick A. Best, St. Bartholomew's Hospital.

APPOINTMENTS.

Alcock.—Daniel Robert Alcock, M.R.C.S. Eng., L.A.H. Dub., Assistant-Surgeon R.N., has been appointed to the *Resistance*.

Atchison.—Cunningham Atchison, Surgeon R.N. (seniority, April 16, 1862), has been appointed to the *Severn* (additional).

Biddle.—Charles Henry Biddle, M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the General Dispensary, Leeds, *vice* Matthew Algernon Adams, M.R.C.S. Eng., L.S.A. Lond., resigned.

Bindley.—S. A. Bindley, F.R.C.S. Eng. (exam.), has been appointed Treasurer of the Medical Benevolent Society, Birmingham, in room of Mr. Bartleet, resigned.

Brittain.—T. Lewis Brittain, M.D. Edin., has been appointed House-Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children.

Clark.—Thomas Clark, L.R.C.S. Irel., Assistant-Surgeon 33rd Regiment of Foot, has been appointed to Medical charge of the Sanatorium at Poorundhur, *vice* Wiliam Harvey Brice, Assistant-Surgeon 28th Regiment of Foot, deceased.

Clayton.—M. H. Clayton, M.R.C.S. Eng., has been appointed President of the Medical Benevolent Society, Birmingham, for the ensuing year.

Cleveland.—Assistant-Surgeon E. S. Cleveland, M.D., M.R.C.S. Eng., has been appointed to officiate as Garrison Assistant-Surgeon at Bengalore, during the absence of Dr. Houston on other duty, or until further orders.

Drennan.—John Swanwick Drennan, M.D. Trin. Coll. Dub., L.R.C.S. Irel., on retiring by rotation, has been re-elected Physician to the Belfast General Hospital.

Eddowes.—William Eddowes, jun., M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the Salop Infirmary, Shrewsbury, *vice* William Alexander Provis, M.R.C.S. Eng., L.S.A. Lond., resigned.

ELIN.—George Elin, M.D. St. And., M.R.C.S. Eng., L.S.A. L.M. Lond., Surgeon to the Hertford Infirmary, has been appointed Medical Officer to Haileybury College, Hertford, late the East India College.

GRAY.—James Foster Gray, F.R.C.S. Eng. (exam.), L S.A. Lond., has been elected one of the Surgeons of the Royal Victoria Dispensary, Northampton, *vice* Charles Dodd, M.R.C.S. Eng., L.S.A. Lond., deceased.

HARDIE.—James Hardie, M.D., L.R.C.S. Edin., has been appointed House-Surgeon to the City and County Infirmary, Perth, *vice* William Roy, M.D. Univ. Edin., who is about to enter on a new sphere of labour.

HARRIS.—John Pitt Harris, L R.C.P. Edin., L.R.C.S. Irel, L.M. Combe Lying-in Hospital, Dublin, has been elected Medical Officer for the Louisburgh Dispensary District of the Westport Union, Co. Mayo, *vice* D. O'Grady, resigned.

UGHES.—T. Henry Hughes, M.D. Edin., M.R.C.S. Eng., has been appointed House-Surgeon to the Birmingham Lying-in Hospital aud Dispensary for Diseases of Women and Children.

LEACH.—Heury Leach, M.R.C.S. Eng., L.S.A. Lond., has been elected Physicians-Assistant aud Apothecary to the *Dreadnought* Hospital Ship off Greenwich, *vice* Mr. John Cooke, M.B. Univ. Lond., F.R.C.S. Eng. and L.M., L.S.A. Lond., resigned.

LLEWELLYN.—Owen J. Llewellyn, Surgeou R.N. (seniority, May 23, 1861), has been appointed to the *Severn* for the *Pantaloon*.

MURNEY.—Henry Murney, M.D., Univ. Ediu., M.R.C.S. Eng., L.M Rot. Hosp. Dub., on retiring by rotation, has been elected Surgeou to the Belfast General Hospital.

ODELL.—Thomas Odell, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the General Infirmary, Hertford, *vice* Richard David Jones Evans, M.D. Mar. Coll. Aberd., F.R.C.S. Eng. (Hon.), L.S.A. Lond., deceased.

PATERSON.—George Audrew Paterson, M.D. Univ. Edin., F.R.C.S. Edin., has been appointed one of the Deputy-Commissioners of Lunacy in Scotland.

PEMBERTON.—O. Pemberton, M.R.C.S. Eng., Surgeon to the General Hospital, Birmingham, has been appointed one of the Directors of the Medical Benevolent Society, Birmingham.

POWELL.—William Edward Powell, L.F.P.S. Glasg., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Kirton District of the Boston Union, Lincolnshire, *vice* Edward Lane, M.R.C.S. Eng., L.S.A. Lond., resigned.

WADE.—Dr. W. F. Wade, sen., Physiciau to the Queen's Hospital, Birmingham, has been appointed one of the Vice-Presidents of the Medical Benevolent Society, Birmingham, for the ensuing year.

WILLIAMS.—T. W. Williams, M.R C.S. Eng., has beeu appointed one of the Vice-Presidents of the Medical Benevolent Society, Birmingham, for the ensuing year.

WOLLASTON.—Robert Wollaston, M.R.C.P. Lond., F.R.C.S. Eng. (exam.), has been appointed Visiting Physician to the Institution for the Insane of the Upper and Middle Classes, Coton-hill, Stafford, *vice* Dr. Edward Knight, M.D. Emau. Coll., Cantab., deceased.

DEATHS.

ADRIEN.—August 22, at Malta, John Joseph Adrien, L.R.C.S. Irel., Staff Assistant-Surgeon, Army (February 10, 1854), formerly Assistant-Surgeon 22nd Regiment of Foot (only son of the late John T. Adrien, Esq., Professor of Medical Jurisprudence, Royal College of Surgeons, Ireland).

BRICE.—Recently, William Henry Brice, L.R.C.S. Irel., Assistant-Surgeon 28th Regiment of Foot, Bombay.

FORBES.—August 30, of consumption, at Torquay, James Forbes, M.D., British Consul at Santiago de Cuba, aged 57.

GUNNING.—August 24, Henry James Gunning, of Cloughton, near Scarborough, Yorkshire, M.R.C.S. Eng., aged 55.

HILL.—July 7, of cholera, at Agra, William Henry Hill, M.R.C.S, Eng., Assistant-Surgeon 35th Regiment of Foot (January 19, 1860), aged 25.

IRVINE.—August 27, at Banchory, James Irvine, of Old Aberdeen, M.R.C.S. Eng.

LEWIS.—August 12, suddenly, at Wymondham, Norfolk, Lewis Lewis, M.R.C.S. Eng., L S.A. Lond., aged 54.

M'KECHNIE.—Recently, Andrew M'Kechnie, Surgeou, Royal Staff Corps, on half-pay.

SIMPSON.—Recently, E. Simpson, Surgeon Royal Artillery.

SOMERVILLE.—Recently, W. Somerville, M.D., Principal Inspecter-General of Hospitals, on half-pay.

LONDON GAZETTE.

August 29.

4TH DURHAM RIFLE VOLUNTEER CORPS.—George Canney to be Assistant-Surgeou; dated August 25, 1862.

17TH DURHAM RIFLE VOLUNTEER CORPS.—Memorandum.—Her Majesty has been graciously pleased to accept the resignatiou of the commission held by Honorary Assistant-Surgeou Davison in this Corps.

September 2.

19TH FOOT.—Staff-Surgeon William Tydd Harding to be Surgeon, *vice* William Kelman Chalmers, M.D., placed upon half-pay; dated September 2, 1862.

29TH FOOT.—Surgeon Edward Moorhead, M.D., having completed twenty year's full-pay service, to be Surgeon-Major, under the Royal Warraut of October 1, 1858; dated August 2, 1862.

VETERINARY DEPARTMENT.—The Christian uame of Acting Veterinary Surgeon Macleau is Daniel, not Douald, as stated in *Gazette* of August 8, 1862.

21ST ESSEX RIFLE VOLUNTEERS.—John Charles Quennell to be Honorary Assistant-Surgeon; dated August 21, 1862.

Her Majesty has been graciously pleased to accept the resignation of the Commission held by Assistant-Surgeon Henry Hulme iu the 6th Lancashire Artillery Volunteer Corps.

HEALTHY APPETITES IN THE ISLE OF WIGHT.—Our island at the present time is full of visitors, and an idea may be gathered of the necessary amount of food required to sustain them, together with the 55,000 inhabitants in addition, when we mention that the last fortnightly gathering of sheep skins alone by the fellmongers, without the addition of some hundreds of lamb skins and hides, amounted to upwards of 1800, showing that 900 sheep must have been slaughtered here per week, in order to supply the demand of the consumers of mutton, and this number was actually exported from Newport quay on Wednesday; and it is very likely that the next fortnightly collection will be still greater.—*Hants Independent.*

"THE misfortune of women in the present day is that of late they are expected to be both men *and* women at once. In the most earnest and distracting terms they are exhorted to make themselves cooks, artists, architects, doctors of every degree, carpenters, painters, glaziers, apothecaries, chemists, printers—every conceivable variety of human speciality; they are enjoined to be fascinating, to be graceful, to be feminine, to be self-asserting, self-denying, obedient, independent, emancipated—correct in all their accounts, moral, and arithmetical—everything at once."—*Athenæum.*

BATTLES IN HOT WEATHER.—The New York Press are anxiously discussing the probable influence of climate on the fate of the war. It has been assumed that malaria, musquitoes, "yellowjack," and alligators would be more fatal to the Federal armies than the weapons of their antagonists. But we think, says the *New York Evening Post*, both our enemies and our friends have placed too much stress on this question of climate. It is well known that Europeans, for several years after their arrival in India, are better able to endure the heat than even the natives and the acclimated residents themselves. After a time their stamina are impaired, and they suffer like the rest. The Europeans who have constituted the Indian armies of France and England, whether in the time of Lally or since, have been able to go through their campaigns with vigour and success. So, too, during our own revolution, our soldiers were never so overcome by the climate of the South but that they were able to fight battles and accomplish marches far more successfully than when they were sufferers from the cold, and experienced the horrors of such camps as Valley Forge. In Mexico their endurance of that *tierra caliente* was equally conspicuous. In the great Continental wars of the beginning of this century, it was the experience of Guthrie, Larrey, and the other great Military Surgeons, that the power of bearing extreme heat or cold depended more on the intrinsic stamina of the troops, than on the place of their nativity. But this subject has been thoroughly inquired into by our own Government in former years, and the result of the inquiry no one knows better than Jefferson Davis himself. The Medical statistics of our army from 1837 to 1854 were within his own observation, and he himself, when Secretary of War, transmitted to Mr. Bright, President of the Senate, a particular report on the subject. The comparison made between the endurance of a South Carolina and a New York regiment discloses the following facts:—In the campaign of 1847 the 1st regiment of South Carolina, 1034 strong, serving for 18½ months, lost by disease 509 men. The New York 2nd, 1063 strong, during the same period lost but 276! The loss from other and accidental causes was one-third less in the New York than in the South Carolina regiment. This would show that if disease and climatic influences are to "fight in their courses" against the combatants in the field or in garrison, the enemy will lose two men to our one. The following is a list of the battles fought during hot months in the war of the revolution:—

June,	1775.	Battle of Bunker-hill.
,,	1776.	Attack on Fort Moultrie by the British.
,,	1778.	Battle of Monmouth.
July,	1778.	Battle of Wyoming.
,,	1779.	Tryon's Expedition.
,,	,,	Capture of Stony Point.
Aug.	1776.	Battle of Long Island.
,,	1777.	Defeat of St. Leger.
,,	,,	Battle of Bennington.
,,	1778.	Battle of Rhode Island.
,,	1780.	Battles of Hanging Rock and Camden.
Sept.	1777.	First Battle at Stillwater with Burgoyne.
,,	,,	Battle of Braudywine.
,,	,,	Battle of Eutaw Springs.

All these battles, North and South, were fought in the hottest weather of the year, and both armies were in full activity.

A NEW method of treating small-pox and other febrile diseases, flanked by a new theory, has been propounded by Dr. D. F. Rennie, Surgeon 31st Regiment, now serving in China. The treatment consists in frictions with croton oil or tartar-emetic ointment, so as to produce a copious suppuration. The theory is, that this suppuration eliminates from the blood the substances capable of undergoing morbid change and producing local disease. Dr. H. O. Bindon, Chief Medical Officer at Tientsin, thus speaks in his Report, dated February 21, 1862 :—"Variola has been very considerably on the increase during the past four weeks, and I regret to observe that the character of the disease has not been of that modified form which it is represented usually to assume when attacking individuals previously protected by vaccination; indeed, many were the most virulent confluent cases it has ever been my lot to witness. All the subjects of this disease bore good marks of vaccination. Remarking on variola in my last Report, I very cursorily have adverted to the treatment of this disease by the friction of either tartar-emetic ointment alone or combined with croton oil, pursued by Dr. Rennie, Surgeon 31st Regiment, and followed also by Dr. Lamprey, 67th Regiment, and other Medical officers at this station. Since then I have watched with considerable interest and attention the progress of several cases treated in this manner, and I feel bound to state that in every instance taken early at the onset of the disease, on the appearance of a full crop of pustules, developed by the application of the ointment, the fever, which in many individuals was previously very high, suddenly abated, each patient reporting himself much relieved from the remission in the symptoms; in many also, though on or shortly after admission, there were detected symptoms of chest complications in the shape of pulmonary congestion,—these symptoms, coeval with the eruptions produced by the ointment, almost immediately subsided; in fact, the disease appeared as if suddenly arrested, and in no instance did it show a tendency to become confluent. It is also most remarkable, that while in ordinary cases of variola allowed to run their course under the usual treatment, the face is the portion of the body to which, as it were, the true eruption of variola most tends, producing there, when confluent, such loathsome-looking masses of disease, under this mode of treatment, by the friction of the ointment, particularly if begun early, the eruption appears to be diverted from its ordinary site of elimination, and to develope itself almost altogether on the trunk and upper extremities." Dr. Rennie's theory seems to be, that many forms of febrile disorder, *i.e.*, bronchitis, dysentery, small-pox, etc., arise from modified effects of malarious poison, if it do not produce regular ague and profuse sweating. He believes that a regular ague is a good thing, and that mortality has been increased, on the whole, by land drainage and other modes of altering the "natural relations between certain soils and certain atmospheres"!! His reasons for this belief are cogent. He believes that ague diminished the general death-rate. "Ague formerly was viewed as having a certain salutary influence, and individuals suffering under other ailments used to endeavour to contract it as a curative measure. Dr. Watson, in his work on the Practice of Medicine, mentions the case of the late Dr. Sims, a former London Physician of some eminence, who, at the commencement of the illness that terminated his life, said he would recover if he could catch an ague. He went to the marshy districts expressly for the purpose of contracting one, but returned to London without having succeeded, complaining that the country had been spoiled by draining, and that there was no more intermittent fever to catch. Dr. Watson also mentions the popular belief respecting ague being a cure for epilepsy." He enforces the necessity of active purgation with the cutaneous counter-irritation. We would respectfully observe, that tartar-emetic ointment and purgatives may or may not constitute the best way of treating febrile diseases. These diseases may or may not arise from agues whose critical sweats have been interrupted. But if these things be true, it would not in the least follow that ague prevents other diseases; or that it can be beneficial to the human race that the surface of the ground should continue swampy and productive of hedges and rushes, and be the haunt of frogs and flies, and the rot insects of sheep, instead of yielding a sweet herbage on which animals good for the food of man can live healthily.

BOOKS RECEIVED.

A System of Surgery, Theoretical and Practical, in Treatises by various authors. Edited by T. Holmes, M.A. Cantab., Assistant-Surgeon to St. George's Hospital, and Surgeon to the Hospital for Sick Children. In Four volumes. Vol III.—Operative Surgery, Diseases of the Organs of Special Sense, Respiration, Circulation, Locomotion, and Innervation. London: Parker, Son, and Bourn, West Strand. 1862. Pp. 916.

Development of Ornamental Art in the International Exhibition; being a concise statement of the laws which govern the production and application of ornament, with references to the best examples. By C. Dresser, Ph.D., F.L.S., etc. London: Day and Son, 6, Gate-street, Lincoln's Inn-fields. Pamphlet. Pp. 192.

Chocolate and Cocoa.—Cocoa; its Growth and Culture, Manufacture, and Modes of preparation for the Table. Illustrated with Plates, accompanied by Easy Methods of Analysis, whereby its purity may be ascertained. By Charles Hewett. Price 1s. London: Simpkin, Marshall, and Co. 1862. Pamphlet. Pp. 87.

Clinical Essay on the Mineral Waters of Eaux Bonnes (Pyrences), and their Value in Consumptive Diseases. By Dr. Lucien Leudet. London: Fieldson and Jary, 6, North-street, Manchester-square. 1862. Price 1s. Pamphlet. Pp. 22.

A Practical Treatise on the Medical Properties of the Aix-la-Chapelle Hot Sulphurous Waters, and the Mode of their Employment. By L. Wetzlar, M.D., Physician at Aix-la-Chapelle. Aix-la-Chapelle: 1862. Pamphlet. Pp. 100.

A Manual of Military Surgery, for the use of Surgeons in the Confederate States Army, with an Appendix of the Rules and Regulations of the Medical Department of the Confederate States Army. By J. Julian Chisolm, M.D., Professor of Surgery in the Medical College of South Carolina, Surgeon in the Confederate States Army, etc. Second Edition, Revised, and Improved. Richmond: V. West and Johnston, 145, Main-street. 1862. Pp. 512.

The Dublin Quarterly Journal of Medical Science; containing Original Communications, Reviews, Abstracts and Reports in Medicine, Surgery, and the Collateral Sciences. No. LXVII., August, 1862. Dublin: Fannin and Co.

Reformatories for Drunkards. By T. W. Belcher, B.M. Reprinted from the *Dublin Quarterly Journal of Medical Science*, May, 1862. Dublin: Fannin and Co. Pamphlet. Pp. 20.

The Races of Men: A Philosophical Inquiry into the Influence of Race on the Destinies of Nations. By Robert Knox, M.D., Lecturer on Anatomy, etc. Second Edition, with Supplementary Chapters. London: Henry Renshaw, 356, Strand. 1862.

Thirty-fifth Annual Report by the Directors of James Murray's Royal Asylum for Lunatics, near Perth. June, 1862. Perth, 1862. Pamphlet. Pp. 57.

Report of Clinical Cases Treated, during the Session 1859-60, in the Surgical Wards of the Royal Infirmary, under the care of James Spence, Esq., F.R.C.S.E., Lecturer on Clinical Surgery. Edinburgh: Murray and Gibb. 1861. Pamphlet. Pp. 40.

On Mauve and Magenta: a Lecture delivered in the Theatre of the Royal Institution of Great Britain, by A. W. Hofmann, Ph.D. London: Clowes, 14, Charing-cross. 1862. Pamphlet. Pp. 16.

Hints and Observations on Military Hygiene, with the best means of treating the Medical and Surgical Diseases of the Army. By Laurence Turnbull, M.D., one of the Surgeons of the Howard Hospital. (Reprinted from the *Medical and Surgical Reporter.*) Philadelphia. 1862. Pamphlet. Pp. 62.

Hints for Clinical Clerks in Medical Cases. London: Churchill. 1862. Pamphlet. Pp. 30.

Bulletin de l'Academie Royale de Médecine de Belgique, Année 1862.

Clinique Medicale sur les Maladies des Femmes. Par M. Gustave Bermetz et M. Ernest Goupil. Avec figures intercalées dans la texte. Tome 2ième. Paris: F. Chamerot. 1862. Pp. 770.

De la Thrombose et de l'Embolie Cérébrales, considerées principalment dans leurs rapports avec le Ramollissement de Cerveau. Par E. Lanceraux. Paris: Delahaye. 1862. 4to. Pp. 150.

De la Resection de la Hanche, dans les Cas de Coxulgie et de Plaies par Armes a Feu. Par Leon Le Fort. Mémoire lu a l'Académie Imperiale de Médecine. Paris; Baillière. 4to. Pp. 140.

Rapport et Procès Verbaux de la Commission, etc., pour l'Amelioration, etc., dans le Service des Aliénés. Paris; De Mouyes. 1861. 4to. Pp. 80.

Fifty-eighth Annual Report of the Directors of the Glasgow Royal Asylum for Lunatics. 1862.

Products and Resources of Tasmania, as Illustrated in the International Exhibition, 1862. By George Whiting. Second Edition. Hobart Town. 1862. Pamphlet. Pp. 46.

Vichy and its Mineral Springs. By Edwin Lee, M.D., etc. London: Churchill. 1862. Pamphlet. Pp. 38.

On the Establishment and Management of Cottage Improvement Societies. By W. A. Greenhill, M.D. Oxon. London; Longmans. 1862. Pamphlet. Pp. 19.

An Account of the Colony of South Australia, with Catalogue of the Products of South Australia, Exhibited at the International Exhibition. London: R. Burt. 1862. Pamphlet. Pp. 96.

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·941 in.
Mean temperature	58·6
Highest point of thermometer	76
Lowest point of thermometer	44·7
Mean dew-point temperature	50·5
General direction of wind	N.E.
Whole amount of rain in the week	0·00 in.

VITAL STATISTICS OF LONDON.

Week ending Saturday, August 30, 1862.

BIRTHS.

Births of Boys, 912; Girls, 940; Total, 1852.
Average of 10 corresponding weeks, 1852-61, 1657·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	609	538	1147
Average of the ten years 1852-61	602·6	591·1	1193·7
Average corrected to increased population..	..	..	..
Deaths of people above 90	..	..	..
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	1	1	8	1	2	6	11
North ..	618,210	2	7	7	3	4	20	23
Central ..	378,058	..	5	8	4	3	10	10
East	571,158	2	23	15	2	3	28	25
South ..	773,175	4	6	12	2	7	13	26
Total.. ..	2,803,989	9	42	50	12	19	77	93

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. D. L. Gillott in our next.

M.D.—Professor Czermak has returned to Prague. The laryngoscope is now used at most of the Metropolitan Hospitals; amongst others at the London Hospital by Dr. Morell Mackenzie.

F. P.—Full information with regard to the London, as well as the Provincial, Schools will be given in the present series of the *Medical Times and Gazette*. With regard to the relative advantages of each School, we must leave our readers to form their own opinion.

The International Congress on Vivisection..—We are requested to state that the communication from Dr. B. W. Richardson, read at the recent meeting of the Congress, was not specially sent by Dr. Richardson to be read at that meeting, but that it was merely a series of answers to certain questions put to Dr. Richardson by the Anti-Cruelty to Animals Society through their Secretary some time ago.

Mr. H. J. Ruddock.—As far as we can judge, the treatment pursued by our correspondent was perfectly right. Turpentine enemata and turpentine stupes are the ordinary and appropriate remedies.

The Late Meeting of the British Medical Association.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your Leader of the 23rd ult. informed me for the first time of an attempt "of some members of the Executive" at the late meeting of the British Medical Association to shelve Dr. Handfield Jones' Paper. Having had something to do with the preparations for the meeting and the arrangement of the Papers, I think it right to state that the Committee, considering the subject of that Paper, and its probable results, of the highest importance, took particular care to assign to it an early and a very prominent place, so as to obviate the possibility of its being shelved, or of the discussion upon it being curtailed. It is true there was an objection taken at the eleventh hour, in consequence of the interference of one of the Medical Journals, but that objection was promptly removed by Dr. H. Jones himself; but it was the inexcusable prolongation of the meeting of Council till long past eleven o'clock on the Wednesday morning that at the very outset upset all previous arrangements, and greatly curtailed, to the deep regret of all, the admirable Paper of Dr. Sibson on Aneurisms of the Aorta.

After that fatal *faux pas*, which I did all in my power to prevent, I left in the hands of others the task of restoring order, for which, hopeless as it seemed, many weeks of overwork and various causes of anxiety had in great measure unfitted me. Having long felt a deep interest in the subject Dr. Handfield Jones has so ably handled, I trust, and am happy to believe, that he will be more successful than I was five years ago, in fairly enlisting the energies of the Association in the cultivation of that almost unbroken field of inquiry, which to patient and united labour cannot fail to yield an abundant harvest. I am, &c.

74, Grosvenor-street, August 28. A. P. Stewart.

Indian Medical Exclusiveness.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A few years ago the late Mr. Albert Smith, in his entertainment "To China and Back," amused the British public with a description of the "Indian Snob." He very briefly but cleverly hit off the most characteristic points of this new genus; the intolerable insolence of behaviour to inferiors, the contempt for niggers, the absurd idea of his own social importance, his "cliqueism," and, above all, his narrow, illiberal views, and his utter stagnation of mind. If Albert Smith had had a larger field for observation than that afforded by a P. and O. Co's. steam-boat, he would have, very probably, treated more in detail of the different species of the genus. From his early Professional predilections the "Indian Medical Snob" would have then most readily attracted his attention. His lamented death, however, has left this fertile ground still unexplored, and I would venture to recommend it to students in search of "objects of Natural History." A certain class of Indian journals alone, apart from personal investigation, would very materially assist them in their researches.

The remarks of your correspondent "A. B." recalled to my mind the prejudiced and illiberal views held by a certain class of Medical men in India, and which occasionally "crop out" in the Indian newspapers. Although quite accustomed to such opinions in India, I was rather surprised at the hardihood of a man who, in enlightened England, would venture to send such a letter to a London Medical journal.

It is to be hoped, however, that the gentle, but effective, snubbing you administered will in future deter him, at least while he is in England, from again proclaiming the narrow-mindedness of his Indian "clique."

"A. B." states that "it is as Sub-Assistant-Surgeons that the Madras Government have very appropriately and justly found employment for Messrs. Thompson and Pandy;" but wherein consists the "very appropriateness and justness" of such an appointment, he does not vouchsafe to inform your readers. I presume he is a firm believer in the doctrine of "the eternal fitness of things," and imagines that because a man has the misfortune to be born a "half-caste"—to use his own polite expression,—he is therefore not intended by nature to fulfil any higher destiny than that of Sub-Assistant-Surgeon. Like King Canute of old, enthroned in a sense of his own importance, he would say to the native and the half-caste, "Thus far shalt thou go and no further!" He would cramp and dwarf their minds within the narrowest compass, and would limit their ambition to the achievement of the meanest and the most paltry ends. The present benighted condition of India, etc., is mainly due to men of the "A. B." genus; and to me, an Indian, it is a consoling thought to know that as soon as the last shipload of these "fossilized" specimens of Englishmen (?) leaves its shores, a brighter and a happier future will dawn over my unfortunate country.

"A. B." chuckles over the blunder of the *Lancet*, and sends you the following correction, "I need scarcely remark, that the Madras Government have not reversed the decision of the Home authorities, who denied not the advisability of natives to enter 'H. M's. Medical Service' in capacities suitable to their social position, habits, and education, but the propriety of promiscuously granting them commissions in 'Her Majesty's army,' which is, and should be only, officered by European gentlemen." Will "A. B." be good enough to inform me where he obtained this marvellous piece of information? Being myself a sufferer by the decision of the Home authorities, I have, as may be supposed, very carefully read the reports of the debates in the House of Commons on this subject. I am therefore in a position positively to affirm that both Mr. Baring and the late Lord Herbert took objection to the admission of natives of India into the "Army Medical Service" solely on the ground of alleged physical unfituess, and not from any incapacity on account of "social position, habits, and education," as "A. B." would, by implication, lead your readers to believe. This platitude of "social position, habits, and education," is one so largely indulged in by a certain class in India, that I think it is high time that it should be exposed. Every European in India, of this class, flatters himself that he has, by some "transformation process," risen several scales in the social ladder, and has passed, as it were, into the sphere of the *élite* of his own profession or trade at home. The Surgeon, for instance, looks upon himself as a Brodie or a Fergusson! and the Midwifery Practitioner thinks himself a Simpson or a Locock! A few years ago there raged a great controversy in the Madras Presidency regarding the fee to be charged for a midwifery case. The Madras Practitioners—who, if they were in practice at home, would be thankful for a one or two guinea case, and would look upon a five-guinea fee as a perfect Godsend—assumed a very high tone indeed, and argued that, because Sir Charles Locock charged twenty-five guineas for attendance on a duchess or marchioness, therefore they had a perfect right to demand 250rs., or thereabouts, for attendance on a civilian's or officer's wife. *Ex uno disce omnes.* It is not difficult to analyse and explain this "transformation process." The European in India attaches himself to a certain "clique," the members of which, on the mutual advantage principle, think they are in duty bound to puff and belard each other. The delusion grows upon a man, till at last he unconsciously deceives himself, and—honestly, no doubt—believes himself to be really as great as his particular "set" persists in making him out to be. These "cliques" are, of course, very exclusive, and look down upon all outsiders with scorn. The unfortunate native, or half-caste, invariably comes in for the largest share of this undisguised contempt; and on his devoted head, chiefly, is showered down most plenteously such platitudes as "social position," "education," "habits," "antecedents," etc. These absurd class distinctions, however, I believe, are fast dying away. Numbers of the natives of India have come to England, and have learned for themselves, and have also taught their countrymen, that this class of Europeans has only acquired a sort of factitious importance in India merely from the circumstance of being Europeans, and that most of them—in spite of their pretensions—are not gentlemen either by "birth or education." They have, in short, learned to distinguish between the "Brummagem" glitter and the ring of the genuine metal.

In conclusion, I would, in all kindliness of heart, ask "A. B." (and others like him), who is evidently "far gone" in Indian "cliqueism"—to use the mildest expression—to read, as a wholesome corrective, Mr. Thackeray's "Book of Snobs," and the late Mr. Albert Smith's "Natural History of Stuck-up People."

With many apologies for trespassing on your valuable space,

London, August 30. I am, &c. Madrassee.

The Relief of Near Sight without Spectacles.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the report in the *Medical Times and Gazette* for August 16, of the discussion which took place on the reading of my paper, "On the Relief of Near Sight without Spectacles," at the late meeting of the British Medical Association, some inaccuracies have crept in. I am there made to say that during the greater part of the time I had been engaged in the investigation of my subject, Jäger's test types were not in use in this country. What I stated was, that the method of testing optical accommodation by lenses had not been introduced into this country as a practice among Ophthalmic Surgeons, and that so late as a year ago I had visited one of the largest Ophthalmic Hospitals in London, and found only one gentleman so employed, and his services had been specially engaged for

the purpose. I also added, I gratefully received suggestions from any quarter, for, to use a phrase, I had no Germanophobia; but the method employed at Berlin had not yet commended itself to my judgment as a practical Surgeon, and therefore I continued to use, in cases of myopia, such tests of the range of distinct vision as were intelligible to the class of persons who resort to Eye Institutions, and to others who might inquire of me, What amount of advantage will your operation afford to those who are near sighted? At the risk of being considered obstinate and contumacious by the Berlinolators, I may state that I have no intention of altering my method of examination. I am encouraged in this resolution by the fact, that the papers which you have done me the great honour of publishing in the *Medical Times and Gazette*, at various times since January, 1861, have gained for the operation of intra-ocular myotomy the favourable judgment of several English Surgeons and others, who, after having acquired a practical knowledge of Ophthalmic Surgery in this country, have studied in the Clinique of Berlin or Utrecht; by some of those, myopia has been treated on my plan, and with success; others have assured me of their intention to make trial of it. The operation, I am informed, has already obtained a place in foreign literature.

As regards the tabulated abstracts of the cases of ten patients, printed in characters sufficiently large for diagrams, with which I illustrated the beneficial effects of intra-ocular myotomy on the range of distinct vision in the myopic,—in five the ophthalmoscope had revealed the presence of a posterior staphyloma, which is considered by Desmurres, Sichel, and others, as "pathognomie" of myopia. Two of the patients had constantly worn deep concave glasses previous to operation, and two others were tested by me with concave spectacles prior to the Surgical treatment. But there remains one case. In what class shall we place it? We will fall in with the last fashion, and say it is an example of hypermetropia,—that new (?) disease, the objective signs of which were given by Richard Bauister 240 years ago, its optical condition defined by Porterfield upwards of a century past, and its relief from convex glasses, when occurring in children and adolescents, pointed out and practised by Samuel Pierce some fifty years back. But, Sir, I am warned that I must apologise to some of my colleagues for exhuming the labours and names of these worthies of the past—for they were Englishmen! I am, &c.

Birmingham. J. Vose Solomon, F.R.C.S.

Professional Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was requested by Dr. Edmunds to see the case of fractured femur, on Wednesday, August 20, in consequence of the action of Mr. Crosby in the matter; an unpleasant duty enough, but one from which no man should flinch when a breach of Professional etiquette has involved not only the proprieties of the Profession, but the future of the patient.

On examining the patient, I found the ends of the fractured bones overriding; the limb shortened quite three inches. I questioned the patient and his relatives as to the antecedent facts of the case without disclosing the object of my visit,—indeed, I had some trouble to convince them that I did not contemplate another rotation of the limb.

They are intelligent people; their statements were clear, candid, and void of any ill-feeling. The chief complaint the patient made (being ignorant of Medical proprieties or their abuse) was the very rough handling by Mr. Crosby, and the dreadful pain he inflicted, which then still remained, and had extended to the groin.

I was informed that Mr. Crosby was made to desist from his manipulation by the active interference of the son; that up to the time of Mr. Crosby's examination the patient had gauged the length of his limb daily, and found no obvious shortening; that the limb had been comfortable; that he had been gradually acquiring power to shift the limb, and explained upon which side of the bed his brother had slept, so that when the limb was partially turned upon the other his brother might not in his sleep injure it.

Now, Mr. Crosby admits that he knew it was a case of fracture, that he saw the cancerous complication, that he knew Dr. Edmunds was in attendance, that the friends were perfectly satisfied with the treatment, and, had he taken reasonable care to ask a few questions, would have discovered that, under the circumstances, the case was doing credit to the skill and prudence of those in charge of the case. How, then, can Mr. Crosby seek shelter in two such paltry excuses as the need of a "thoroughly independent opinion" and the "evil of delay"? Why, in the name of reason, such precipitancy, such indecent haste, in violation of those laws of Medical ethics which I trust as much concern the patient as the jealousy of the Profession?

Mr. Crosby himself further admits that he did not communicate with Dr. Edmunds till two days after the offence to which he says he allowed himself to be impelled by a lay member of society. Are even our leading men, our high priests of Medicine, too busy to extend the amenities of a dignified Profession to their fellow-labourers?

The Hunterian Society's proceedings are quite beside the question. Mr. Crosby owes it to the Profession, on his own admissions, to apologise for his conduct. I am, &c.

49, Leadenhall-street, September 3. Augustus G. Merrett, M.D.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Mr. Crosby admits that, knowing the case to be one of fractured thigh, of nine weeks' duration under Medical care, with which the friends were perfectly satisfied, he yet visited the patient, "gently rotated the thigh," and "explained the hopeless nature of the case," and only communicated with me after two days.

My further statement, that he had, by improper manipulation, broken up an untrustworthy but useful union, he contradicts, and also asserts that cancerous bones do not unite. To this I will merely say, that Mr. Gay saw the case with me in consultation after Mr. Crosby's visit, and that he holds a different opinion as to the possibility of union in such cases; and with respect to this particular bone, Dr. Tandy's letter of last week entirely corroborates my statement.

Mr. Crosby then imputes an animus, and refers to an etiquette job in which the Hunterian Council condemned me; but I merely say that on that occasion the name of the Society was prostituted for the purpose of gratifying a private grudge; and as Mr. Crosby has imported this matter into his defence, I must ask your permission to make public the following particulars:—About a year ago some one of the Council made an allegation against me, behind my back, and I received from the Secretary a formal request for an explanation. The matter referred to and the terms of this letter were so vague as to include anything, from a trivial indecorum up to a charge of actual dishonesty; and I therefore asked for the charges specifically, and for the name of the informer. Instead of acceding to this moderate request, they sent me three pages of inquisitorial and insulting questions,—such as only a set of spoons would have indited, and no one but a man of large leisure could have answered. I wrote to say that I would attend their next meeting, and give any explanation they might wish for; but on that occasion I was kept downstairs half an hour, and then refused admission.

Notwithstanding this, I thoughtlessly sent to their next Council Meeting a cursory account of the matter, and expected an apology in return, but received instead a copy of a vote of censure.

Incredible as this may seem, it is moreover the fact, that I never knew the ground of their censure, nor the name of the informer, and, furthermore, the Council had neither precedent nor bye law empowering them to censure anything.

I believe that Mr. John Jackson, of Church-street, Spitalfields, was not only the author of this farce, but that he also played *Iago*. I have written to him on the subject, but only met with evasion, and I now give this gentleman another opportunity of repudiating such a charge.

I have refrained from entering upon the subject itself on account of the space it would occupy, and because it is sufficiently evident that no legitimate object would have been pursued in such a way, and that no conscientious motive would have induced a man to anonymously slander a Professional neighbour. I am, &c.

2, Spital-square, August 23. James Edmunds.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I must adhere to my statement,—that prior to Mr. Crosby's visit *the femur was united* and of normal length, whereas afterwards it was in the state which has been described.

The patient will abundantly bear out all the statements which have been made as to what Mr. Crosby calls "gentle rotation of the ankle."

7, Spital-square. I am, &c. Grainger Tandy.

The New Bye-law of the London College of Physicians and the Title of Doctor.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In a well-written letter in your last Number a "M.R.C.P.L." complains of being dubbed by the College "Physician" instead of "M.D." I read his complaint with much interest, and was the more struck with it as I remembered reading in Boswell's "Life of Johnson," anno 1775, the complaint of a Dr. Memis, of Aberdeen, that that University had entitled him "Doctor of Medicine" instead of "Physician," for which he brought an action, alleging that his not being entitled "Physician" tended to injure him in his practice, and make the public think he was not one. I do not know if he gained his action, nor if "M.R.C.P." intends to bring one, but I think it is high time all parties came to conclusions on the matter.

As it at present stands, Scotia gets the best of it. Every youth of 21, after being two years at Edinburgh, becomes M.D., and so are many of my neighbours, who took train to the North during the year of grace (disgrace), scratched themselves, paid £10, and returned wiser men within twenty-four hours. The point is disputed with regard to the Dublin College, or, at least, it was so recently. If the late Dr. Darling was only L.R.C.P., he had "Dr." on his door, which indicated his own conviction on the matter. As for the point made that only Universities can make "M.D.'s" it is futile; and if they claim such a privilege, let them insist on long residence and that classical education and degree in Arts which is requisite at Oxford and Cambridge, and which conduces to the formation of the highest class in our Profession. The title "Physician" is good and is respected. It has for many years assisted Francis Moore in the prosperous career of his almanac. I would only add that it would be well if every one, in the case of the title of that of "Doctor of Medicine," would invariably subjoin where he had it from. I am, &c.

Tewkesbury. Frederick James Prior, L.R.C.P.L., M.R.C.S.

[Our correspondent is mistaken. No student can obtain the degree of M.D. from the University of Edinburgh after two years' study there. —Ed.]

COMMUNICATIONS have been received from—

M.D.; Dr. R. Knox; Dr. R. D. Thomson; Dr. R. Martin; Dr. A. P. Stewart; M. R. Emslie; Dr. B. W. Richardson; Mr. Wilson Parker; Mr. F. D. Fletcher; Mr. J. Vose Solomon; Mr. J. Z. Laurence; Dr. Dunoan Smith; "The British Journal of Photography;" Mr. G. Reed; Mr. F. C. Calvert; Mr. Sheppard; Mr. Lyons; Mr. T. Taylor; F. P.; Mr. Gillott; Dr. G. Ellice; Dr. Kidd; Mr. H. J. Ruddock; Dr. A. G. Merrett; Dr. Edmunds; Dr. Brittain; Dr. Tandy; Dr. F. J. Prior.

APPOINTMENTS FOR THE WEEK.

September 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

8. *Monday*.

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.

9. *Tuesday*.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

10. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

11. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

12. *Friday*.

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE III.—*Recapitulation of Leading Points—Pale Globules of the Blood and Lymph Globules—Differences of Development of Red Corpuscles—Pyrenæmatous and Apyrenæmatous Vertebrates—Red Corpuscles of Apyrenæmata—Their Comparative Sizes in the Different Orders—Results.*

We are now coming to a view of the comparative sizes of the red corpuscles of mammalia. But, before going on this little journey, let us take a survey of our ground. We concluded that the pale globule of the blood is a cell containing a nucleus, and, as shown in the diagrams, not a mere nucleus like the lymph corpuscle; that this cell or pale globule of the blood is, by flattening and colouring of the cell-wall, transformed into the red corpuscle of the blood of oviparous vertebrates, the nucleus remaining as a permanent part of this corpuscle. But in mammalia, on the contrary, this very nucleus of the pale cell appears to be extruded or shed, coloured, and converted into the red corpuscle of the blood. So, looking backwards to our description of the structure of the mammalian red corpuscle, and forwards to the comparative structure of the red corpuscle of oviparous vertebrata, we may fully comprehend our main position in the zoological part of our field, founded on the only single, universal, and central difference between these two great divisions of the vertebrate subkingdom. Thus (Πυρην nucleus, αιμα sanguis) we have—1. *Vertebrata Apyrenæmata*; 2. *Vertebrata Pyrenæmata;* the first characterising the mammalian, and the second the oviparous subdivision.

It was shown that the pale primordial corpuscle of the blood of the early embryo of apyrenæmatous vertebrates may be regarded as the analogue of the prevailing or regular corpuscle of many invertebrates; that the succeeding temporary red cell with its included nucleus of the same embryo is the analogue of the common red corpuscle of pyrenæmatous vertebrates; and that the last and regular red corpuscle of Apyrenæmata being in the highest state of development, destitute of a nucleus, has no analogue, unless it be the nucleus of the pale cell of the blood. We have already seen that this perfect red corpusele is probably, according to Mr. Wharton Jones's observations, derived from this nucleus; and that apyrenæmatous red corpuscles, before his researches, were certainly described and depicted by myself as nuclei of cells (Fig. 8, page 188), though without a knowledge at that time of their import.

RED CORPUSCLES OF THE BLOOD OF APYRENÆMATA.

The structure, analogies, and development of these are the same as in the highest apyrenæmatous vertebrate, man. So, too, is the shape; with certain exceptions presently to be noticed in the ruminants. At an early period of these inquiries we examined the corpuscles of Marsupiata and Monotremata with great interest, expecting novelties which were never found. Even in these abject Apyrenæmata the red corpuscles afford no exceptions to the typical structure and figure. I well remember how, at Chatham, in 1837, Dr. Davy and I undid a valuable preparation in spirit of the ornithorynchus, in the hope, which proved vain, of examining its blood corpuscles. Even the aberrant shape of the corpuscles of Camelidæ was proved (*Med. Chir. Trans.*, November 26, 1839; *Lancet*, 1840-1, vol. i. p. 101) to coexist with the typical size and structure of the corpuscles of other ruminants.

Comparative Sizes of the Corpuscles of Apyrenæmata.—These are given much more extensively in my Tables of Measurements ("App. to Gerber's Anat.," "Notes to Hewson's Works" for Syd. Soc., and *Proc. Zool. Soc.*, 1845 *et seq.*, including the pyrenæmata, the pale globules of the blood and lymph globules, as well as the red corpuscles), than is shown even in the many diagrams at present before you, representing the corpuscles of animals in the different orders now to be detailed (a).

In the *Quadrumana* the corpuscles differ but little from those of man (Fig. 1 *a*), being generally only just appreciably

Fig 1

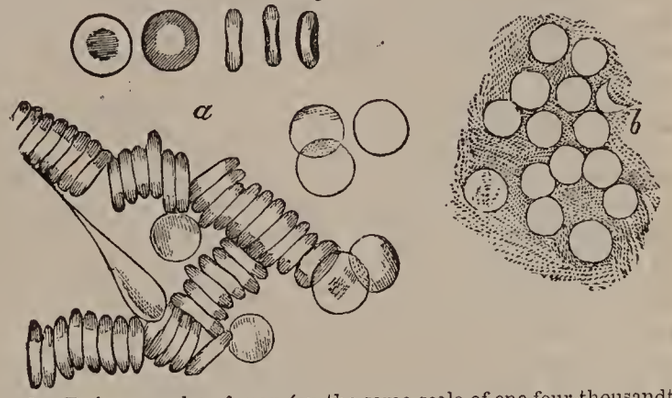


Fig. 1.—Red corpuscles of man (on the same scale of one-four-thousandth of an inch as the other Figures). At *a*, the corpuscles are seen flat, on edge, and in rolls; the two first corpuscles show the central spot or concavity, dark and light; next are shown the biconcave and concavo-convex forms; among the rolls, one corpuscle is drawn out by virtue of its viscidity, and would resume its circular shape by virtue of its elasticity. At *b*, the pale membranous frames of the corpuscles are shown, completely devoid of any nucleus, and deprived of their coloured viscid part by three days' washing in water, and then treated with sublimate.

smaller than his, both in the monkeys of the old and new Continents. In the lemurs the corpuscles are commonly slightly smaller still.

In the *Cheiroptera* and in the *Insectivorous Feræ* the corpuscles are generally rather smaller than in the monkeys.

Although in the *Feræ* there is considerable diversity or irregularity in the size of the corpuscles, there is a marked disposition to uniformity in those of the species of some families; so that certain subdivisions of the order may be distinguished from others simply by the size of the corpuscles. Some of the small Felidæ have slightly larger corpuscles than the lion or tiger. In the Plantigrade group, as the bears, badgers, and coati mundis, the corpuscles tend to be larger than in the Insectivorous subdivision, and much approach to those of the monkeys,—though apt to be smaller in aberrant genera, as Cercoleptes and Bassaris. If enumerated in the order of the size of the corpuscles, from the largest to the smallest, the families of Feræ would stand as follows:—Seals, dogs, bears, weasels, cats, viverras. Thus the Phocidæ, Canidæ, and Ursidæ have larger corpuseles than the Viverridæ, and the corpuscles of intermediate size are those of the Mustelidæ: in the seal, otter, and dingo, the corpuscles are nearly as large as in man; and, in the Paradoxures, as small as in some small species of the ruminant order. It is curious that the foxes have slightly smaller corpuscles than the common dog, and dingo. In some bears I found, as in certain other hybernating Apyrenæmata, a set of smaller red corpuscles mixed with the majority of the common size.

That curious animal, the basset (*Bassaris astuta*), which has alternately been associated by zoologists with the Ursidæ and Viverridæ, has blood corpuscles more agreeing in size with those of the bears, and consequently distinctly smaller than those of the viverras. The hyenas, which have been arranged with the canine, viverrine, and feline tribes, agree best in the size of the corpuscles, as also does Lycaon with the dogs, and therefore differ in this respect much from the typical viverras; while that singular and aberrant creature, the kinkajou (*Cercoleptes candivolvulus*), which has at different times been arranged with the bears and weasels, rather differs from them, and agrees with the viverras, in the small size of its corpuscles.

The *Pachydermata* have middling-sized corpuscles, usually rather small, considering the large size of the animals. As discovered by Mandl, and confirmed by many observers since, the elephant has corpuscles larger than those of man; but in the rhinoceros they are rather smaller than in the human subject, and they are smaller still in the horse, pigs, and tapirs. The corpuscles are, as might be expected, slightly larger in the ass and zebra than in the horse.

In the Cape Hyrax, or rock-rabbit, the corpuscles are about as large as in man; so that, in this respect, it is more like a rodent than a pachyderm: and though Cuvier determined its

(a) A plan, on the same uniform scale as used in this report of the Lectures, of the sizes of the red corpuscles of the vertebrate sub-kingdom, is engraved in the *Proc. Zool. Soc.*, February 25, 1862.

affinities, from its osteological structure, with the rhinoceros and tapirs, this remarkably large size of the corpuscles in such a small species is sufficient, while regarding it as a pachyderm, to show that Hyrax is an aberrant genus of the order.

Among the *Cetacea* I have only examined the corpuscles of the fin-backed whale (*Balæna Boops*), the Ca'ing whale (*Delphinus globiceps*), and the common porpoise. In Balæna they are somewhat larger, and in the porpoise smaller, than in man. Their shape and structure are the same as in other mammalia.

The order *Ruminantia* is characterised by the smallest red corpuscles, and will be found generally to afford a good illustration of the rule hereafter to be explained,—namely, that of a tendency to a relation, *cæteris paribus*, between the large species and the largest corpuscles, and the small species and the smallest corpuscles in a single natural group or family. In the little napu, meminna (Fig. 6, *a*), and Stanley musk-deer, I discovered (*Dublin Med. Press*, Nov. 27, 1839; *Trans. Med. Chir. Soc.*, Nov. 26, 1839; and *Proc. Zool. Soc.*) that the red corpuscles are the smallest yet described in the animal kingdom, that those of two species of Broket deer and of the ibex are next in minuteness; and then succeeds a further enlargement in those of the common goat, which had previously been always described as the smallest known. In the sheep they are somewhat larger still, while in the great species of the order, as in the buffalo, auroehs, Sambur, Wapiti, and moose-deer, they are as large as in many Carnivora, and larger than in the typical Viverridæ.

Fig. 6.

Fig. 6.—Red corpuscles and pale globules of the blood and lymph corpuscles of *Moschus Meminna* and *Camelus Vicugna*. At *a*, red corpuscles lying flat, in rolls and on edge, of *Moschus*; *b*, an unaltered pale globule of blood, and the same with a triple nucleus exposed by the action of acetic acid; *c*, first, a lymph-globule unchanged, and, lastly, the same treated with strong acetic acid. At *d*, red corpuscles of *Vicugna*; *e*, two pale, unchanged globules of the blood; *f*, two lymph-corpuscles, the first fresh, and the last after having been steeped for hours in strong acetic acid.

In the *Camelidæ* (Fig. 6, *d*), the red corpuscles are regularly of an oval shape or outline, with only a very few circular, just like those of the lower vertebrata in this respect. Observe in this respect, because, as I proved at once on microscopico-chemical analysis of them in 1839, and often since, the blood discs of the camelidæ in no other point accord with those of pyrenæmatous vertebrates, but exactly resemble, both in structure and size, the corresponding corpuscles of their apyrenæmatous allies. You may search in vain among the regular corpuscles of camelidæ for such a nucleus as may be so easily seen in those of birds, reptiles, and fishes; and this is one of the proofs I used to adduce of the non-existence (in opposition to the then prevailing doctrine) of a nucleus in the blood disc of Apyrenæmata. The discovery of the oval shape of the corpuscles of the dromedary and paco, made some years ago by Mandl, was quickly afterwards confirmed and found by me to exist also in the other species of the camelidæ,—to wit, the Bactrian camel, the llama, and the vieguna (Fig. 6, *d*). And at that time the interest of the discovery was much increased by the supposed formation of pus-globules by a mere alteration of the blood discs; an opinion which was held, if not originated, by the eminent Dr. Young, and subsequently entertained by others, especially by Dr. Martin Barry in this country; while, on the Continent, M. Gendrin asserted that he had actually seen the transformation in question. And you may be sure, after fruitless attempts to excite true suppuration in some birds and reptiles, that we were glad to avail ourselves of the opportunity of comparing the oval blood discs with the pus-globules and lymph-globules in these Apyrenæmata. But at this time I need hardly tell you that the results, though interesting in some respects, were altogether of a negative character as regards the main point of inquiry.

In the *Ruminant* order occur curiously shaped corpuscles, in great abundance, such as might arise from changes of form in the common circular discs; and such figures were mentioned when treating of the human corpuscles (some of the objects in Fig. 4, page 157). But in certain Cervidæ, as the Mexican deer and the hog-deer, the red corpuscles were almost all of these remarkable ereseentie, lanceolate, sigmoid, notched, and angular forms, as I found after many trials, especially when the blood had been kept an hour or two out of the body. Still, even in blood dried at the instant of its issue from a cutaneous vein, these figures were presented by the majority of the corpuscles, while those of the circular shape were much fewer. The diagram represents them from a drawing (*Phil. Mag.*, 1840,) by my lamented friend the late John Dalrymple, and from such a preparation, in the making of which he assisted, because he was not satisfied with what, he remarked, "might be blood acted on somehow or other."

The *Rodentia* have large red corpuscles, like those of the Quadrumana. Even in that most tiny of all British Apyrenæmata, the harvest mouse, they are as large as in the horse and pig; while in the capybara, which is the largest rodent animal that I have examined, they are as large as or larger than in man. Referring to my notes in the *Philosophical Magazine* for January, 1840, p. 112, and to a sketch then made and now shown in the diagram, it appears curious that, in some small active species, though the majority of the corpuscles are rather large, there is a set of them remarkably smaller in the very same drop of blood. Thus in certain Sciuridæ, of which the corpuscles were generally quite as large as $\frac{1}{4000}$th of an inch, those of the smaller set had only an average diameter of $\frac{1}{7000}$th. Whether this may be a special provision in connexion with the habits of the animals, so different during the active and hybernating states, is well deserving of further inquiry. It will be recollected that a similar smaller lot of red corpuscles was observed in some bears.

The *Edentata* are also characterised by corpuscles of large size. In the armadillo (dasypus, Fig. 9, *b*) they are but slightly smaller than in man; while in the two-toed sloth (*Bradypus didactylus*) and great anteater (*Myrmecophaga jubata*, Fig. 9, *a*) they are considerably larger. Indeed, with the exception of the elephant's, I found in the great anteater and the two-toed sloth the largest red corpuscles at present known among the Apyrenæmata; and I believe, according to the rule already referred to as to the relative magnitude of the discs in a natural family, that those of the gigantic Glyptodon and Megatherium were much larger than any ever yet seen among the Apyrenæmata.

Fig. 9

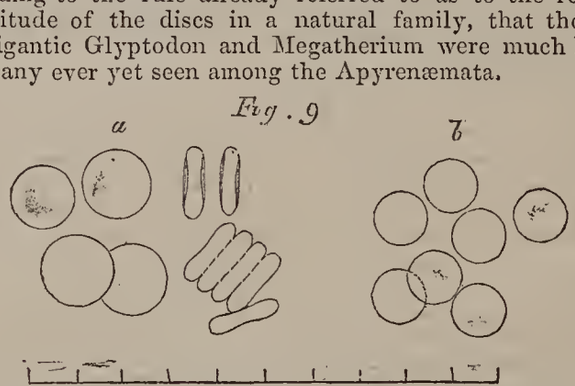


Fig. 9.—Outlines of red corpuscles. *a*, of *Myrmecophaga jubata*; *b*, of those of *Dasypus sex-cinctus*.

In the *Marsupial Order*, considering the peculiarities of organization, I expected novel results in the examination of the corpuseles; and, accordingly, undertook the inquiry with much interest, only to find that the blood discs of these pouched animals agree with those of the corresponding placental series, and generally approach in size to those of the rodentia. I have measured the corpuscles of different species of nine genera; and found them largest in the Wombat (Phaseolomys), smallest in Hypsiprimnus (Fig. 10, *a*), and the Viverrine Dasyure, but somewhat increasing in size in the Ursine Dasyure. You will recollect that, among the feræ of placental animals, the Viverridæ have smaller corpuscles than the Ursidæ.

Fig. 10

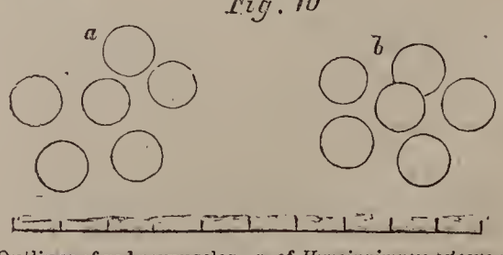


Fig. 10.—Outlines of red corpuscles. *a*, of *Hypsiprimnus sciosus*; *b*, of those of *Echidna hystrix*.

The *Monotremata*, too, have red corpuscles much like those of man in all respects, according to the observations of Drs. Davy, Hobson, and Bedford. And my examinations of the corpuscles of the Echidna (Fig 10, *b*) were to the same effect; they are but slightly smaller than the human corpuscles.

As to the general results of these observations on the comparative sizes of the red corpuscles of apyrenæmatous vertebrates, we have seen that they are mostly smaller than those of man (Fig. 1, *a*), and that among the few of these vertebrates which have the corpuscles as large as or larger than his, are the fin-backed whale, the Ca'ing whale, the elephant, the capybara, the great anteater, and the two-toed sloth. The corpuscles of the great anteater (Fig. 9, *a*) and of the elephant are the largest yet discovered in the class. There are orders, as Quadrumana, Rodentia, Edentata, and Monotremata, with the corpuscles approaching in size to those of the human subject; while, on the other hand, an order, as Ruminantia, may be characterised by the comparative smallness of its corpuscles, and as affording the minutest at present known, which you see in the diagram of them in the genus Moschus (Fig. 6, *a*) Bnt even certain subdivisions of a single order, as of the Feræ, may differ regularly in the size of the corpuscles, as we have described by comparisons in this respect of the typical Viverridæ with the Canidæ and Phocidæ, proving that the first-named family can commonly be distinguished from the latter families simply by its smaller red corpuscles. Usually, whenever a species differs remarkably in the magnitude of its corpuscles from its nearest allies, that species will prove to be an aberrant one, Cercoleptes and Hyrax, for example. In fine, so important are these results, that I have always been in the habit of insisting that the facts —subject to that correction, extension, or completion, which they yet require—may be useful, and ought never to be neglected in questions of zoological affinity, nor indeed in zootomical description.

In the next Lecture we propose to take a view of the corpuscles of pyrenæmatous vertebrates, after which we shall be able to extend comparisons, and to consider further the size and surface of the corpuscles in their relations to the organisation of the vertebrate sub-kingdom.

ORIGINAL COMMUNICATIONS.

ON THE

THERAPEUTICAL USE OF ELECTRICITY AND GALVANISM.

By JULIUS ALTHAUS, M.D., M.R.C.P. Lond.

(Concluded from page 220.)

In cases where the absorption of effusions in superficial tissues is to be promoted, both Galvanisation and Faradisation may be advantageously employed. Thus, cases of *hydrocele*, in which both the injection of iodine and the seton had failed, have been cured by the use of either of these methods; Faradisation is, however, preferable from being less troublesome. The proceeding in hydrocele should be as follows:—Two acupuncture needles are introduced, the one into the upper, and the other into the lower part of the tumour; and the free extremities of the needles are then connected with the poles of the induction machine. The current should only begin to act after the introduction of the needles, because otherwise, violent pain would be caused on lodging them in the sac. We must also take care that the points of the needles should project into the fluid, as if they are merely passed into the subcutaneous cellular tissue, or the tunica dartos, the current would only act upon these membranes, but not upon the tunica vaginalis and the fluid accumulated in its sac. At first a mild current should be used, which may be gradually increased until the patient complains of pain. The operation should last for about twenty minutes; at the same time gentle pressure may be exercised upon the tumour. Immediately after the operation, the scrotum appears puffed, and the quantity of fluid in the sac is generally diminished. Sometimes the hydrocele disappears within the twenty-four hours after the first operation; in other cases three or four operations are required for effecting a cure.

In *opacities of the cornea*, especially such as defy other therapeutical proceedings, Faradisation is a valuable remedy. For this affection Galvanisation must not be used, because of its peculiar action upon the retina, and which might prove dangerous to the function of this membrane. The induced current, on the contrary, which only acts upon the retina if it possesses a very high tension, and even then not nearly so much as the continuous current, may be quite safely used in the treatment of diseases of the eye. A moist conductor connected with the positive pole should be placed in the hand of the patient, while the negative pole is applied to the closed eye. In order to discover the relative value of the different modes of treating opacities of the cornea, Dr. A. Von Graefe used in patients in whom both eyes were similarly affected, the induced current on the one, and laudanum, nitrate of silver, etc., on the other, with the result that the cure by Faradisation was much more rapid than by the other means. Opacities of the cornea invariably require a somewhat protracted treatment, viz., from one to three months, according to the severity of the affection. If Faradisation is judiciously performed, and the treatment persevered in for a sufficient time, a successful result may be confidently expected. The cure is more rapid if the operations succeed each other at short intervals, viz., every other day, or four times a-week, a quarter of an hour each time.

If the zinc pole of a voltaic pile is made to act upon the lens of the eye, this is rendered opaque, and if the copper pole is afterwards directed to it, the opacity again disappears. This fact induced M. Crussel to recommend Galvanisation for the cure of *cataract;* but since, in the few cases which have thus been treated, inflammation of the choroidea, iris, and retina, and destruction of the eyeball have followed the operation, it would be unjustifiable to resort to it.

Absorption of *rheumatic effusions* may be readily induced by Faradisation, especially if they are seated in the skin, the cellular tissue, and the muscles. In such cases Faradisation of the skin is generally advisable, but this proceeding should not be resorted to if the affection is seated in the face, to which moist conductors only should be applied. The curative influence of Faradisation is most striking in rheumatism of the deltoid muscle, and of the interossei and lumbricales of the hand, whether of recent origin or of long standing; and it can, in the treatment of these affections, not be replaced by any other remedy. Rheumatic effusions in the joints are likewise amenable to Faradisation, which must, in this instance, be practised by moist conductors and continued somewhat longer than Faradisation of the skin. In severe cases, the patient is only relieved if the operation lasts for half an hour or even more. If *muscular contractions* are at the same time present, Faradisation of the skin, and of the antagonists of the contracted muscles, proves of great benefit. Some time ago I treated in this manner a patient who was under the care of Dr. Horace Dobell, and who had been seen by Drs. Barlow and Pitman. The elbow-joint was swollen, stiff, and painful, the pain being greatest on the external condyle, where pressure and even mere touch could not be borne. The muscles were considerably wasted, and the arm was flexed in an angle of about 110°, further extension being impossible. I performed Faradisation of the triceps muscle, the joint, and the skin of the elbow, with the result that the patient felt much relieved immediately after the first operation. After the second, he slept for the first time since five weeks without a sedative draught, which he had till then been obliged to take in order to procure sleep. Moreover, the joint was much more supple, the arm could be extended to an angle of about 140°, and there was more power in the muscles. Soon afterwards, however, the patient ceased to attend. In *incomplete anchylosis* of the lower jaw, with pain and difficulty or impossibility of mastication, and of opening the mouth, Faradisation is also appropriate. In cases of this kind it should be performed every day for two or three weeks consecutively in order to effect a cure.

The same treatment may be resorted to for certain *tumours*, especially of the glandular kind, and some forms of struma; and it is chiefly advisable where Surgical operations are impracticable, on account of the seat of the tumour, or where the patient is averse to such operations. A striking case of this kind occurred a short time ago in the practice of Professor Langenbeck, and Dr. Meyer, of Berlin, The patient suffered from a hard glandular tumour, as large as the head of an adult, and lodged between the head and the right shoulder, filling up the space between the lower jaw, the mastoid process, and the linea semicircularis inferior of the occipital bone, and extending backwards in the direction of the vertebral column, which was dislodged towards the left side.

The circumference of the left side of the neck was only six inches, while that of the right side was no less than fourteen. After fifty-six applications of the induced current, the tumour was reduced to one-half of its previous size, and by further treatment its bulk was still more diminished. In such cases each operation should last for about an hour, and the treatment must be persevered in for a considerable time if beneficial results are to be obtained. Galvanisation seems, in the treatment of these affections, equally valuable as Faradisation.

Messrs. Willebrandt, Wertheimer, and Jacksch have recommended and used galvanism for the cure of *strictures of the urethra*. An insulated catheter, with a free metallic point, is introduced into the urethra, so that it touches the stricture; and it is then connected with the negative pole of the battery. For establishing the circuit, a conductor connected with the positive pole is placed in the hand of the patient. The catheter is left in the urethra for from ten to twenty minutes, after which it easily glides into the bladder. From eight to ten such operations are said to be sufficient for the cure of severe strictures; but further experience is required before a decided opinion on the value of Galvanisation in cases of this kind can be given.

For *ulcers*, in which the secretion is of an unsatisfactory character, and in which a growth of healthy granulations is to be promoted, both Galvanisation and Faradisation may be advantageously employed. A single pair of zinc and silver, as recommended by M. Crussel and Mr. Spencer Wells, may be used, the silver being applied to the ulcer, and the zinc to any part of the skin, which must be previously moistened, in order to facilitate the passage of the current. Dr. Ruschenberger, of the United States' Navy, has successfully used the same means for unmanageable decubitus. Mr. Mitchell Henry has informed me that he has found the interrupted current very beneficial for improving the secretion of ulcers. Faradisation may also be used *after amputations*, when the stump remains in an unhealthy state. Some years ago I treated by this means a patient upon whom Mr. Spencer Wells had performed amputation of the forefinger. Cicatrisation had been very tardy, and although the wound healed at last, the stump remained livid, very soft, was exceedingly sensitive to touch, and bled easily. Under the influence of Faradisation it became much firmer, acquired a healthier colour, was less sensitive to touch, and never bled again.

Urinary calculi of the most different chemical composition may be dissolved or disintegrated by means of electricity. Mr. Robinson has recommended the mechanical action of an electric discharge from the Leyden jar for destroying the texture of the calculus. Such a proceeding, however ingenious, would yet not seem devoid of danger, since small fragments of the stone might, by the force of the shock, be lodged in the tissue of the bladder. Prévost and Dumas have employed the mechanical action of torrents of hydrogen and oxygen, developed by the decomposition of water by means of the continuous current, for rendering calculi friable. M. Bonnet and Dr. Bence Jones have proved that we may, by the electro-chemical decomposition of a solution of nitrate of potash, convey acids and alkalies to the stone, without diffusing these powerful solvents in the urine contained in the bladder, which latter would therefore not be injured by such an operation. We know that most urinary calculi may be dissolved either by nitric acid or by potash. If, therefore, a calculus is immersed in a solution of nitrate of potash, and a continuous galvanic current is caused to act upon this solution, nitric acid will be attracted to the positive pole, and caustic potash to the negative pole. Thus, one side of the calculus will be subjected to the action of the acid, and the other to that of the alkali; so that, if the stone be composed of phosphates, it will be dissolved on the acid side; and if composed of uric acid or urate of ammonia, it will be dissolved on the alkaline side. No doubt this proceeding might be highly advantageous, especially for the removal of large calculi, for which lithotrity is not applicable; but it has hitherto been found impossible to construct an instrument by means of which the current could be safely conveyed to the calculus, and which at the same time prevented the liquid in the bladder from assuming a high temperature, and allowed of the escape of the gases which are formed by the decomposition of water. Dr. Melicher, of Vienna, affirms having successfully operated by Galvanisation upon two patients suffering from stone; but as he has not given a full description of his cases, nor of the instruments employed by him, his statement is devoid of value.

The "*electro-chemical bath*" has been recommended for extracting from the human body, by the aid of a voltaic pile of about thirty pairs, various metallic substances which have been taken as remedies, or lodged in the system while being used in the different arts and trades in which they are required. No satisfactory proofs have as yet been given that this may really be done, while the current report that considerable quantities of mercury have been extracted from the bodies of persons who have never taken this metal, has tended to somewhat depreciate the value of this mode of treatment in the eyes of the Profession. In a similar manner the *introduction of medicinal substances* into the system with the aid of galvanism, which was recommended by Fabré-Palaprat, Klencke, Hassenstein, and Dr. Richardson, has, by further experience, been shown to be impracticable.

Wires rendered incandescent by the continuous galvanic current can be employed for producing the effects of the actual cautery, whether we intend destroying the tissues or merely modifying their vitality. In certain cases the *galvanic cautery* has great advantages over other cauteries and the knife. It acts rapidly and energetically—it causes little or no hæmorrhage—there is no danger of its hurting the adjacent structures, neither on first introducing nor in afterwards removing it—it favours the growth of healthy granulations, and is not so terrible to the patient as the red-hot iron; and deeply-seated tissues which are inaccessible to the knife may, by the galvanic cautery, be burnt or cut without danger. After its use the condition of the patient is almost always satisfactory, besides which the proceeding is scarcely painful. The drawback to the galvanic cautery is, that a special and somewhat expensive apparatus is required for its use, and that the wires, when rendered incandescent, may melt, especially if they come in contact with bones or cartilages. The galvanic cautery is chiefly applicable in the following conditions:—Hæmorrhage from a large surface (as from fungus medullaris), certain forms of neuralgia, ulcer of the collum uteri, cancer, fistula, severe stricture of the urethra, and polypus of the uterus, the larynx, and posterior nares. Professor Middeldorpff's galvanic burner, porte-ligature, and seton, are the most convenient instruments for cauterisation by means of galvanism.

Faradisation has a considerable influence upon the process of *secretion* in different organs. Suppressed perspiration of the feet may by this means be re-established. In women after parturition, where the lacteal secretion is tardy, or when it has been suppressed in consequence of emotion, etc., Faradisation of the mammæ by moistened conductors produces beneficial effects; in such cases the operation should last for a quarter of an hour or twenty minutes, and be repeated the same day. In deficient secretion of the semen, Faradisation of the testicles proves useful. In amenorrhœa the induced current is a valuable emmenagogue, especially in young unmarried women, in whom we are led to assume a torpid state of the vasomotor nerves of the ovaries and the uterus; and also in cases where the catamenia have been suppressed in consequence of emotion, anxiety, cold, etc. In certain cases of chronic metritis connected with amenorrhœa, absorption of the effusion in the tissue of the uterus takes place under the influence of the same treatment, and the catamenial function then returns to its normal state. In amenorrhœa Faradisation of the womb itself is most effective; but where this is not expedient, the stimulus may be directed to the skin of the soles of the feet and the legs, and by moistened conductors, to the nape of the neck and the os pubis, as well as to the inner surface of the thighs.

Faradisation and Galvanisation are indispensable in the treatment of certain *diseases of the nervous system and the muscles*. When paralysis is caused by an extensive laceration of cerebral tissue, by atrophy and softening of, or tumour in, the brain, or by diseases of the meninges and the bones of the skull, no good can be done by any form of electricity. But the case is different if the destruction of brain-fibres has not been very extensive, and the paralysis is chiefly due to a ruptured blood-vessel. In patients of this kind who have survived the stroke, a process of reparation takes place in the brain, and according to the nature of this, the symptoms may differ as follows:—(*a.*) The formation of the cyst is accompanied by a gradual amelioration of the paralytic symptoms, and spontaneous recovery ensues after a time; in such cases there is no need of electricity. (*b.*) The cyst is formed, but there is little or no improvement in the paralytic symptoms; the muscles are relaxed and wasted, the limbs loose and flaccid, and the heat and general nutrition of the limbs is much below par. In such cases Faradisation of the paralysed

muscles should be resorted to after from four to six months have elapsed since the attack. (*c.*) By the gradual shrinking of the cyst an irritative condition is kept up in the brain, and the paralysed muscles assume a rigid state. In cases of this kind, Galvanisation of the paralysed muscles, and Faradisation of their antagonists, is the best means of treatment. By Galvanisation we may diminish the irritation in the rigid muscles, while Faradisation, by stimulating the power of the antagonists, serves at the same time to re-establish the normal equilibrium between the different sets of muscles.

In paralysis, owing to disease of the spinal cord, Faradisation can only be useful if the disease itself is improving, but not when it is recent and progressing. In cases of the latter kind Galvanisation frequently proves very beneficial, especially when spasms are associated with the paralytic symptoms. This may appear startling, but experience shows it to be the fact, especially for cases in which white softening of the spinal cord is suspected.

In paralysis of the muscles of the eye, with consequent double vision, strabismus, etc., electricity can do no good if the affection is of central or syphilitic origin; but if it should be due to an effusion in the sheaths of the nerves or the tissues of the muscles, or to over-exertion, it may be cured by Faradisation. One electrode connected with the negative pole should be placed in the hand of the patient, while a small moist sponge connected with the positive pole should be applied to the skin of the closed eye, as close as possible to the muscle upon which we are desirous of acting.

In paralysis of the superficial branches of the portio dura, Faradisation is the most rapid and efficacious means of restoring the muscles to their normal state, even if the affection should be of very long standing. But when the intracranial portion of the nerve is suffering, in consequence of fracture, caries or necrosis of the petrous portion of the temporal bone, a radical cure of the facial paralysis is only possible after the nerve has regained its normal condition. If the disease of the bone improves and the nerve recovers, but the facial muscles nevertheless remain paralysed by disuse and impaired nutrition, Faradisation will effect a cure.

Good results may be expected from a Faradic treatment in *paralysis of the vocal cords*, provided that the affection arises from mere loss of nervous power (hysterical aphonia); but if the laryngoscopic examination shows it to be dependent upon structural diseases of the organ of voice, such as tubercular or syphilitic ulcers, etc., electricity can do no good. Quite recently I effected a cure of hysterical paralysis of the vocal cords in a woman, aged 30, who had been examined with the laryngoscope by Dr. Lichtenberg and Professor Czermak. At first it was found that the vocal cords were quite flaccid, and could not be stretched, there being a corresponding change in the form of the glottis. There was no structural disease whatever, but the voice was entirely lost. After two operations the patient could speak again, though still in a hoarse tone only. Professor Czermak then found that the right vocal cord had to a great extent recovered and could again be stretched, while there was no improvement in the left. This is an interesting fact, showing that the normal state of one vocal cord is sufficient for the production of certain vocal sounds. Dr. Dalrymple, of Norwich, was present at this examination. By further treatment the left vocal cord was also restored to its normal condition, and the voice quite recovered. Faradisation of the skin covering the larynx, and of the recurrent nerve by means of moist conductors, is the best treatment in cases of this kind.

Reflex paraplegia, when due to neuralgia, is often rapidly cured by Faradisation. In other cases of reflex paraplegia, this treatment is only palliative; but it greatly favours recovery if the cause of the disease is removed. In traumatic, hysterical, and rheumatic paralysis, in lead-palsy and progressive muscular atrophy, Faradisation is mostly indispensable for a cure.

In some forms of *club-foot*, in which the deformity is caused by paralysis of the muscles on the front of the leg, the same stimulus, directed to the weakened muscles, proves beneficial. In pes planus where the sole has lost its normal vault, Faradisation of the peroneus longus muscle should be performed.

In cases of constipation, which are caused by a want of peristaltic motion of the contractile fibre-cells of the intestines, or by loss of power in the abdominal muscles, Faradisation frequently affords relief, especially if the affection occurs after protracted diarrhœa, and the abuse of aperient medicines. The same may be said of tympanitic distension of the abdomen, especially in hysterical women, and after the ingestion of indigestible food. In paralysis of the bladder, and chiefly in enuresis nocturna of children, Faradisation of the bladder or the abdomen has proved curative. For stimulating the bladder, we may either introduce into it an insulated double sound, or a simple catheter connected with the positive pole, while the circuit is closed by placing a moistened conductor to the abdomen or the spine.

In spasms which are due to structural diseases of the nervous centres, Faradisation should not be employed, as it would only aggravate the sufferings of the patient; in such cases Galvanisation deserves a trial, but we cannot expect beneficial results from it, unless a pile of from thirty to sixty pairs of Bunsen's, or some other constant battery, is employed. Galvanisation is also useful in paralysis agitans, and mercurial tremor, while Faradisation affords relief in hysterical convulsions, spasm (or rather paralysis) of writers, spasmodic wry-neck, and chorea. Space forbids me from giving special rules for the treatment of these and kindred affections by means of electricity. I will only say that the direction and power of the current, and the duration of the operation, require to be carefully modified according to the necessities of the case under treatment.

Epilepsy cannot be cured by any form of electricity; but Faradisation may sometimes be advantageously used in epileptic patients for improving the nutrition of the muscles, if these are wasted, and also for relieving the pain in the limbs, which is not unfrequently felt after the fit, and is often very distressing.

In anæsthesia of the nerves of special sense, and the sentient nerves generally, both Galvanisation and Faradisation are appropriate. In loss of smell Faradisation of the mucous membrane of the nose has proved curative. Amaurosis has been often treated by galvanism, but generally without success; the only cases in which this agent could prove beneficial, would be such of simple anæsthesia of the retina and optic nerve, which are exceedingly rare. An examination of the eye by means of the ophthalmoscope should always precede a galvanic treatment, as many cases which are said to be amaurosis, really depend upon morbid changes in the retina, choroidea, etc., and which prevent the possibility of vision. In cases of deafness where we cannot discover any structural disease of the ear, and where there is insufficient secretion of cerumen, Faradisation deserves a trial. It is often successful, but fails just as often. In loss of taste Galvanisation is probably more efficacious than Faradisation, which latter acts only on the sentient nerves of the tongue, but not on the gustatory nerves. In anæsthesia of the sentient nerves of the extremities, especially if it occurs in hysterical women, and is not connected with structural diseases of the nervous centres, Faradisation frequently proves curative. In poisoning with opium, chloroform and other narcotic substances, the weakened animation may be restored by Faradisation of the skin and of the phrenic nerve.

In hyperæsthesia which is due to rheumatism, or occurs in hysterical women, or is merely a morbid exaltation of sensibility without structural changes, the Faradic treatment may be resorted to with a fair chance of success. Cases of chronic sciatica, pain in the back, and inframammary pain, are chiefly amenable to it. The effect is generally immediate, but the operation requires to be repeated if a permanent cure is to be brought about.

In midwifery, Faradisation may be used for tedious labour, and hæmorrhage, especially in cases of placental presentation, and in cases of hæmorrhage in the early months of pregnancy, which resist other treatment, and which from the constricted state of the os and cervix uteri do not admit of mechanical or manual interference. A sound connected with the negative pole should be placed to the cervix uteri, and a moistened conductor connected with the positive pole to the nape of the neck.

18, Bryanston-street, Portman-square.

A NEW METHOD OF REMOVING THE EYEBALL.

By JAMES KEENE, M.R.C.S. Eng.

The operation for the removal of the eyeball was at one time seldom or never resorted to, unless tumours of a malignant character were supposed to exist; and when, of course, it was

most important that the whole contents of the orbit should be carefully excised in order to avoid leaving behind any portion of diseased structure which might be the means of regenerating the morbid action. The tumour having converted the eye into a large shapeless mass, projecting often beyond its socket, required an operation of some severity for its ablation. But, of late years, since it has become the practice to remove the eye where no cancer exists, and where the loss of vision is attributable to inflammatory action, the object has been to prevent sympathetic destruction of the opposite organ. In operations of this nature, which are becoming more frequent as our knowledge of pathology advances, it is not essential that the entire contents of the orbit should be excised; on the contrary, it is desirable that all the healthy structures should remain, as they afford a useful stump for the adaptation of an artificial eye.

In these cases it is now customary to resort to the operation devised by Bonnet, which, I need hardly say, consists in making a circular incision through the conjunctiva, and by means of a strabismus hook drawing each muscle through the aperture, and then dividing it. Several modifications of this process have been adopted by different operators, but it has always been lengthy and tedious.

To accelerate matters I suggested the adaptation of a cutting edge to the hook, which, being pushed onwards, after passing under the muscle, divided it without having recourse to scissors. This seemed an improvement, but not all that was desired. I subsequently devised and put into practice the following operation, which, from its simplicity and effectiveness, I have much pleasure in recommending to the notice of the Profession:—

The subject having been placed in the recumbent position, I introduced the spring speculum, and, standing at the head of the patient, passed a silk thread through the eye, as in the old operation. Holding this silk in the left hand, and making traction upon it, I punctured the tunics of the eyeball, at a point about a quarter of an inch from the margin of the cornea, with a pair of sharp-pointed curved scissors held in the right hand. The scissors were then passed round the whole circumference of the organ a little behind the insertion of its muscles, the instrument in its passage severing them with the underlying sclerotic. The tendinous insertion of the muscles was thus removed with the anterior half of the eye, while the posterior segment was left attached to the orbit by the optic and ciliary nerves and vessels. To complete the extraction, I seized the edge of the remaining sclerotic with a pair of ordinary dissecting forceps, and, passing the scissors to the back of the eye, readily severed its attachments.

A description of this operation, which I believe to be original, appeared a short time ago in the *Australian Medical Journal*, since which I have had the opportunity of practically demonstrating its value in the presence of several members of the Profession, all of whom concur in its merits for celerity and effectiveness, although some objections were taken on the ground that the necessary division of the eye damaged its value for subsequent pathological study. This, however, it is submitted, is not a material objection, the primary aim being the effective extraction of the eyeball.

Melbourne.

TWO CASES OF ELEPHANTIASIS.

By J. FAYRER, M.D.

Surgeon, Bengal Army; Professor of Surgery and First Surgeon, Medical College Hospital, Calcutta.

Case 1.—A Mohammedan, aged 32 years, native of Zillah Beerbhoom, in Bengal, was admitted into the Medical College Hospital, Calcutta, early in March, 1862, with elephantiasis of the genital organs and the right leg. The disease made its appearance first in the leg fifteen years ago. The scrotum and prepuce were not affected until three years later, when it ceased to increase in the leg. The prepuce and integument of the penis were chiefly affected; the scrotum and leg to a much less extent. The growth of the tumour has been attended with frequent paroxysms of fever, and an excited and painful condition of the part, ending in permanent hypertrophy, as is usual in this disease. The patient was, in all other respects, healthy and in good condition. He had had no fever for some time. The tumour was quiescent, and he was most anxious to be rid of the incumbrance. The operation was accordingly performed on the morning of March 11, 1862. A long and deep incision was first made down to the penis, which was exposed and dissected out with some difficulty, owing to the density of the tumour, and its firm adhesion to the organ. The testicles were next exposed by incisions made in the direction of the cords, and being reflected with the penis on to the abdomen, the hypertrophied tissue was next separated. The testicles were healthy, and the tunicæ vaginales not much thickened. The tumour, near the lower end of it, bled freely, several considerable arterial branches having been divided. Twelve ligatures were applied. The integument in the perineum being sound, enough of it was easily left to admit of rapid cicatrization. The subsequent progress of the case was quite satisfactory. The testicles were rapidly closed in by granulation and cicatrization, and the patient was perfectly well on May 9, 1862.

The accompanying engraving will give a better idea than any description could do of the size and appearance of this morbid growth. The part removed weighed 16¼ lb., the hypertrophy being chiefly in the integument of the penis.

I have selected this case as a good illustration of that form of the disease in which the integument of the penis is its chief seat.

The following case illustrates a more common form, in which the scrotum is most implicated:—

Case 2.—A Hindoo, 32 years of age, native of Calcutta, was admitted into the Medical College Hospital on December 9, 1861, with a scrotal tumour of great size. His health was very poor; he was suffering at the time from sloughing ulceration of the tumour. He was much emaciated, and subject to repeated attacks of fever.

It was not until April 12, 1862, that it was deemed safe to attempt the operation. During this time, under the combined influence of rest, good food, quinine, and iron, he has improved in health, gained flesh, strength, and spirits.

The tumour was of enormous size, slightly tuberculated on the surface at the lower part of it. It was 17 inches in circumference at the neck, 44 inches transverse, 46 inches vertical, and 57 inches lateral circumference. Its growth extended over a period of eight years, commenced in the scrotum, and has been accompanied by the usual paroxysms of fever recurring several times in the month. No elephantiasis in any other part of the body.

On April 12, 1862, I removed it, with the aid of my colleague, Mr. Partridge, the House-Surgeon, the Resident Surgeon, Mr. Hayes, and the Dressers. A vertical incision was made, as indicated by lines in the accompanying engraving, with a long amputating knife on a steel director, down to the penis, which lay deeply imbedded in the mass. Three deep incisions were required to expose the glans. The penis was then dissected out, and held back. The left testicle was exposed by a series of firm and bold incisions, dissected out, and reflected. The right testicle was next sought for, but being deeply imbedded and difficult to detach from the surrounding mass, the attempt was discontinued and the cord cut across. The incisions were then connected by a transveres

cut at the base, and the mass removed by a series of rapid sweeps with the scalpel. The arterial hæmorrhage was

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partially controlled by a clamp placed on the neck of the tumour, which had been elevated with pulleys for an hour before the operation, to empty it as much as possible of blood. About thirty-one ligatures were required, every bleeding point being carefully secured.

He became very livid on the table, but soon rallied. The removal of the tumour occupied a little over three minutes. It was not considered safe to prolong the operation in searching for the right testicle, as the hæmorrhage was profuse, and the patient had naturally a weak pulse and feeble action of the heart, with a tendency to fatty degeneration, which made us rather doubtful in the outset as to the propriety of giving chloroform ; but having preserved the penis and one testicle, the other was sacrificed rather than run any risk of sinking from exhaustion. I should add that in addition to the elephantiasis, there was a large hydrocele containing several pounds of fluid.

The tumour was weighed some time after its removal, when the blood and serum had drained away, and was found to weigh 75¾ lb. ; so that the weight removed, including fluids, must have been over 80 lb. The patient was under the influence of chloroform, and felt nothing.

I saw him five hours after the operation ; the pulse had risen to nearly its natural standard ; the body was warm, and the effect of the shock had evidently passed away.

The wound was dressed for the first time on the 15th, after the dressings applied on the operating-table, and they have been changed daily since. Oiled lint and pressure with a bandage to aid contraction is all that is required.

He has not had a bad symptom, and the wound rapidly closed in.

He was able to sit up and even walk about a little on April 28, and on May 27 was quite well.

The largest growths of this nature that have been removed in England are, so far as I know, those operated on by the late Messrs. Liston and Aston Key. One tumour being nearly fifty pounds, and the other nearly fifty-seven pounds in weight. Mr. Liston's case did well ; the entire tumour, including the testes and penis, being removed. Mr. Key's case died very shortly after the operation, which lasted one hour and three-quarters ; the delay, no doubt, being caused by the attempts to preserve and cover in the genital organs.

It is, therefore, interesting to know that even larger growths may be removed, the genital organs be preserved, and no such fatal result occur. It is not necessary to attempt to preserve flaps to cover in the exposed penis and testes ; this is perfectly well effected by the subsequent granulation and cicatrization. The neighbouring integument is generally unsound, and, if preserved, is liable to be the seat of a recurrence of the disease. To attempt, therefore, to preserve it, is as useless as dangerous, and an operation which, in the experienced hands of Mr. Key, occupied an hour and three-quarters (*Vide* Chelius, by South), may be performed more satisfactorily, and with greater safety to the patient, in a few minutes.

In the removal of the largest of these growths, I may add, should the effort to preserve the testes be found to prolong the operation beyond three to five minutes, the attempt should be desisted from, and the whole remaining mass swept away as quickly as possible.

It is remarkable how little deformity results. The genital organs after the operation differ but little in appearance from the normal condition of the parts ; slight retraction of the penis and a contracted state of the scrotum being the only changes perceptible.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

FAVUS OF ALMOST THE ENTIRE BODY.

(Under the care of Dr. GULL.)

If the reader will refer to portrait No. 1 of the "Atlas of Skin Diseases," published by the New Sydenham Society, and will imagine the patches of favus crust there represented increased in number and in size until they cover almost the entire surface, he will have a very accurate conception of the state of things in the case about to be described. It was, indeed, one of the most extensive and severe cases that could well be imagined. In a Clinical Report on Favus,(a) published in this Journal, we gave the particulars of forty-four cases, some of them very severe ones, but in none of those was the extent involved anything nearly equal to that in Dr. Gull's patient. In the report referred to, we adverted to possibility of favus causing death simply by interfering with the cutaneous function, and in a case of the severity which was reached in this instance it can easily be understood how such a termination might be induced.

It will be observed that although the disease was of such extreme severity, yet the lad did not display any evidence of tubercular diathesis, nor of any other special form of constitutional disease. He was stunted in growth, as such patients often are,—a result probably due to prolonged impairment of the functions of a very large extent of skin.

The case is also interesting apart from its severity, because it presents us with an instance of favus of one of the finger nails. This disease has been described both by German and French dermatologists as occasionally attacking the nails, but we have ourselves never before seen an instance of it in English practice.

We scarcely need advert to the now well acknowledged fact that the essential treatment for these cases is local. The use of one or other of the different parasiticide remedies must be steadily persevered with. If the disease appears to be cured, still the application must be continued or a relapse will occur. With due perseverance,—through possibly several years,—the loathsome disease may not only be kept in abeyance and its subject be enabled to mix with others and pursue his vocation, but there is fair reason to hope that in the end a genuine cure may be obtained. Epilation is of the greatest value as preparatory to the application, since it enables the ointment or lotion to find its way into the parts which would otherwise have harboured the germs of a fresh crop.

Although favus is rare in English practice, yet it is very important that it should be well and widely understood. Its extremely prejudicial influence on the social happiness and prospects of its victim, and the fact that if understood it is susceptible of cure, give it an importance which it would not otherwise possess.

The reader will notice that we have also here another instance of favus spreading by contagion. The contagiousness of favus has been doubted by some, and it was one of the points which, in the Clinical Report above referred to, we especially affirmed and endeavoured to prove.

(a) *Medical Times and Gazette*, December 1859, pages 553, 577, and 653.

The following are the particulars of the Guy's case, as recorded by Mr. J. H. Evans, Dr. Gull's clinical clerk :—

William C., aged 20, a pale cachectic lad, very stunted in growth and development, and presenting the appearance in size of a boy about 14, was admitted February 24, 1862, into the Clinical Ward for favus crusts covering the whole of his body. The disease was of fourteen years' standing. Two years ago he was under treatment in St. Bartholomew's Hospital, and left perfectly well.

The crusts sometimes fall off, leaving the skin beneath them red and very tender, but not ulcerated. If pulled off before they are mature the skin bleeds. At first there is a small pimple, in the point of which appears a small, hard, whitish head. This gets gradually more and more prominent, whilst the base enlarges in circumference, keeping circular throughout. The irregular patches seen are formed by the junction of two or more of these. The skin has not been painful or irritable. He has had baldness nearly from the first. He has never been able to take much exercise, but his general health has been very good. His appetite never failed him, and he has never had any particular illness besides. His father died from mortification after an injury. His mother is quite healthy, and he is one of a family of seven children. Of these two are dead. The others are quite well, with the exception of a sister, 17 years old, who has, on her head only, crusts like those from which he is suffering.

State on Admission.—A strong, peculiar, very offensive odour is perceived on approaching the patient. The crusts are found on the arms, scalp, trunk, and lower extremities. He says that he never had any on the palms of the hands, nor on the soles of the feet, nor on the ears, front of neck and face, except on the forehead and temples. All the crusts that are distinct are circular, or very nearly so. The smaller ones are cupped in the centre, which is depressed. Each of those on the head has a hair in the middle. Hair grows through some of the larger ones, too. These larger ones, some of which are two inches in diameter, are elevated, and appear to be formed of concentric rings, getting broader and broader towards the base. Many of the crusts are much cracked in all directions; those about the joints are deeply fissured transversely. The edge of the skin surrounding the larger ones is a little elevated, and about all it is of a purplish red colour.

There is a small crust in the matrix of the nail of the left ring-finger, presenting the same microscopical characters as the above. The nail is in great part destroyed.

He has no enlarged glands, and the mucous membranes do not appear to be affected. Appetite is good; bowels regular.

The microscope confirmed the diagnosis.

This patient got quite well, and remained in the Hospital some time after he was cured to see if the disease would return. He had become robust and fat.

He was placed on full diet. The treatment consisted in removing the crusts with linseed poultices made with lime water. To the surfaces from which they were removed an ointment (of half a drachm of calomel to an ounce of spermaceti cerate) was applied. Internally the patient took the syrup of the iodide of iron in cod-liver oil for many weeks.

REMARKS ON ULCERATION OF THE LARYNX IN TYPHOID FEVER, BY DR. WILKS.

At an autopsy on a patient who died of typhoid fever, Dr. Wilks made some interesting remarks on a condition sometimes, though rarely, found in this disease. Some years ago, in the Crimea, it had been noticed that cases of typhoid fever became complicated with emphysema. The explanation of this was then rather difficult, and some attributed it to gases formed by decomposition of the tissues during life. He (Dr. Wilks) believed the true cause was to be found in the larynx. Some years ago he exhibited a specimen at the Pathological Society—a larynx taken from a patient who died of typhoid fever, in which there was ulceration at the back part of this organ. The fact that ulceration of the larynx is often a part of the diseased process in typhoid fever has been long noticed, especially in Northern Germany. In the case alluded to there was, however, also a simple explanation of the emphysema. An ulcer had perforated the larynx, and air had escaped between the trachea and the œsophagus. In the Inspection which gave rise to these remarks, there were the usual appearances in the small intestines and a small ulcer at the back of the larynx. Dr. Wilks believed that the disease in the larynx went through the same stages as the disease of the Peyer's patches in the intestinal canal,—first there was deposit of typhous matter, then ulceration, and, as a further step, occasionally perforation.

AMAUROSIS—VIOLENT PAINS IN THE HEAD—OPHTHALMOSCOPIC EXAMINATION — SUBSEQUENT HEMIPLEGIA.

(Under the care of Dr. WILKS.)

In our Report of Cases of Disease of the Cerebellum is incidentally mentioned a case of amaurosis from (supposed) tumour of the brain. The patient, a moderately healthy-looking woman, aged 19, first came under our notice when she was a patient, under the care of Mr. Poland, at the Royal London Ophthalmic Hospital in November last. She had then been ill three weeks with severe shooting pain in the forehead continuous night and day, and defective sight. Her general health, she said, was good. At her first visit, however, she could read very small print, but in a week later she lost perception of light with one eye, and had no useful vision with the other. She seemed in such good general health that it was suspected that she might be hysterical. The ophthalmoscope, however, showed real disease. Dr. Bader examined the eye with this instrument. The optic discs were swollen at the edges; the veins were gorged as if the exit of the blood was impeded; the arteries were rather small, and not seen passing over the swollen edges of the optic disc. Dr. Bader believed that there was some tumour of the brain interfering with the circulation. Mercurial inunction was prescribed. Under this treatment, and with blisters, she improved; but after December 11 we lost sight of her until we found her, on September 6, in Guy's Hospital, under the care of Dr. Wilks for hemiplegia. She said that her sight had improved very much, so that she could read, but that now it was again failing. Since June she had been hemiplegic on the left side, face, arm, and leg.

KING'S COLLEGE HOSPITAL.

CASE OF EXCISION OF THE KNEE FOR DEFORMITY—RECOVERY WITH A USEFUL LIMB.

(Under the care of Mr. FERGUSSON.)

[Reported by Mr. CLARK, House-Surgeon.]

JOHN M., a shoemaker, aged 25, was admitted into King's College Hospital on June 4, 1862. He is a strong, muscular man, and has had good health as long as he can remember. He lives in London. When he was two years old he had what he has been told was a "weakness" in his left knee, but he can give no account of the nature of the malady. At present there is no active disease going on in the joint, but the left leg is bent to nearly a right angle, so that he is unable to put the foot to the ground. The heads of the tibia and fibula are dislocated upwards and backwards, and the whole limb is much less developed than its fellow. Little or no movement of the joint can be effected. Accurate measurement from the great trochanter to the outer malleolus shows that the left leg is two and a-half inches shorter than the right.

On June 14 he was placed under the influence of chloroform, and the joint was excised by Mr. Fergusson. A single transverse incision having been made, a wedge-shaped piece of bone was removed, which included the patella, the upper surface of the tibia, and a portion of the condyles of the femur. As some difficulty occurred in bringing the cut surfaces into apposition, another slice was taken off from both the femur and tibia, which allowed both bones to be brought into proper position. No vessels required to be tied, the edges of the wound were brought together by silk sutures, and the limb was fixed on an excision splint. On being taken to bed, the patient was seized with violent spasms in both legs, particularly in the one that had been operated on. It was with difficulty that he could be prevented from lifting his leg perpendicularly. At the same time there was some degree of opisthotonos, and the pain seemed to be excruciating. He appeared quite unable to control the movements of his legs. Ten grains of pil. sap. co. were administered immediately, and orders were given for five grains to be given if the pain should continue excessive. By these means he was kept tolerably easy, and sleep was produced.

When the dressings were going to be removed the spasms came on again, and it was found necessary to give chloroform. On one or two subsequent occasions the same means had to be adopted, but gradually as the pain decreased he gained more control over his muscles. After this he pro-

gressed favourably. The bones of the leg were in good position. A great part of the wound healed by the first intention, and there was a healthy discharge, which gradually diminished, until at the end of a month it had ceased altogether. The excision splint was now changed for a light back splint, and on July 19 the patient was allowed to get up and move about on crutches; in another week he was able to go out for a short walk. For a month longer he remained in the Hospital, and no unfavourable symptoms occurred. Before he was discharged there was firm bony union, and he was able to bear a little weight on his leg.

THE HULL INFIRMARY.

MORTIFICATION OF BOTH FEET IN A YOUNG WOMAN, FROM WANT AND EXPOSURE TO COLD AND WET — DOUBLE AMPUTATION — RECOVERY.

(Under the care of Dr. KING.)

[Reported by Mr. C. J. EVANS.]

MARY A. F., aged 19, a thin, delicate, ill-nourished girl, was admitted on March 27, direct from the Driffield Workhouse, whither she had been taken the same day. She had been found on the road, and unable to proceed any further from exhaustion brought on by exposure and privations. She states that she has been tramping about the country by herself for several months, not knowing where her relations are, and has been much exposed to cold and wet, and has also suffered from want of food. She was seen, as soon as she reached Driffield, by the Union Surgeon, who advised her immediate removal to this Hospital.

Symptoms on Admission.—Both feet are mortified as far as the instep, quite black, with bullæ in places, but the left heel is not at present involved, though the right one is. The gangrene appears to be rather superficial. No line of demarcation is at present apparent in either foot. The integument of legs is tense and shining, and is œdematous to a slight extent. The gangrene commenced six weeks ago in the little toe of the left foot, and one week ago in the great toe of the right foot; so that it has spread more rapidly in the right than in the left. Feet wrapped in cotton wool. Common diet, beef-tea, and wine daily. Thirty drops of tincture of opium at bedtime.

March 31.—More bullæ have appeared, but there seems to be no tendency to spread in either foot. No line of demarcation is at present visible.

April 2.—Feet enveloped in large poultices mixed with lead and laudanum lotion. Mixture of cascarilla and opium.

3rd.—Had a quiet night, and is rather inclined to be drowsy. Pupils contracted; pulse very small, feeble, and rapid. ℞. Infus. cinchonæ. ℥xij., tinct. opii. ℥j., ammon. carb. ʒij., cap. ℥j, ter. die. The quantity of wine was increased to six ounces during the day; three ounces of brandy were given for three nights; beef-tea Ojss., and soda-water *ad libitum* for drink.

6th.—A line of demarcation is now forming in both feet across the instep and above the heel of the right foot, and across the dorsum of the left foot at the root (proximal ends) of the metatarsal bones. General health somewhat improved. The integuments above the gangrenous part have all along been more inflamed in the right than in the left foot.

8th.—She prefers wine to brandy, so the latter is omitted, and eight ounces of wine given instead.

12th.—She is weaker than she was; pulse extremely feeble; digestive powers weak, and she takes scarcely any nourishment. The phalanges of the little toe of the left foot are exposed, but the gangrenous action has not extended completely through the thickness of the foot.

14th.—*Operation.*—On consultation it was not considered safe to postpone operative proceedings any longer; so to-day, under chloroform, which was not administered to the full extent on account of the feebleness of the patient, the left foot was removed at the ankle-joint; the ends of the malleoli being cut off with bone-forceps, and the os calcis dissected out. The least possible quantity of blood was lost, but there was some hesitation as to the safety of amputating the other foot at that time, though it was felt that the patient would be much better without it if she could only go through the second operation. Brandy and ammonia were freely given, and as the pulse was scarcely more feeble than when she was first placed on the table, the other foot was amputated in the lower third of the leg by the flap operation. She was removed to bed in a pretty comfortable state.

In the evening the pulse had rather a better volume, and the surface of the body was warmer. She had vomited once or twice. A draught of four minims of tincture of opium, ten drops of sal volatile, and half an ounce of brandy was given every hour.

15th.—Has had a very fair night, and expresses herself as feeling comfortable. To omit the draught, and take the cinchona and ammonia mixture.

18th.—Evening.—She seems much worse; is restless and rather delirious; countenance very pale, and pulse extremely feeble. She perspires much, and looks as if she would not rally. Ordered half an ounce of brandy in beef-tea every hour.

It would be tedious to give in detail a further daily report of this case. Suffice it to say that she rallied from the low state above described, and made a steady but very slow convalescence, her system being so lowered and its vitality so depressed by the kind of life she had previously led, that she was very slow indeed in regaining strength. The stumps healed kindly, but slowly, the main ligature in the right one not coming away till May 10.

Her disposition was very fretful and capricious, not to say obstinate, and though the stumps were quite healed, it was with the greatest difficulty that she could be got to attempt to make pressure upon them with the aid of crutches. She was discharged cured, with two good stumps, on June 6.

ST. GEORGE'S HOSPITAL.

OVARIOTOMY—A DEAD FŒTUS FOUND IN THE UTERUS—MULTILOCULAR OVARIAN DROPSY—DEATH ON THE SECOND DAY.

(Under the care of Mr. POLLOCK.)

THE feature of special interest in the following case is, that during the operation the patient was discovered to be several months pregnant. We are acquainted with the particulars of another case, in which ovariotomy was practised during pregnancy. In it, however, the period was not so advanced, and it was not till some weeks after the patient's recovery that her state was discovered. The case to which we refer occurred in the practice of a most experienced specialist. No one familiar with the diseases of women will feel any wonder at the occasional occurrence of such accidents. The diagnosis of pregnancy is often in uncomplicated cases sufficiently difficult, but when the abdomen is occupied by a huge morbid growth, the risk of a mistake is enormously increased. In Mr. Pollock's case, as will be seen, the tumour had been tapped only five weeks before the ovariotomy, but as it was multilocular, the fact that the abdomen was not wholly emptied was considered to be fully accounted for. The following are the details of the case:—

A married woman was admitted under Mr. Pollock's care for ovarian dropsy. About nine months before, she noticed a swelling in the left side of the abdomen. It increased so rapidly, and the distension was so great, that she was tapped four months from the time she first noticed the swelling. Soon afterwards she aborted. The swelling again returned, and she was tapped a second time, as the distension was very great. This was five weeks before the operation of ovariotomy, which was performed by Mr. Pollock on August 28. The relief by the tapping on that occasion was for so short a time, and the distress was so great, that the patient readily consented to take the chances of perfect cure afforded by the major operation.

Mr. Pollock made an incision about six inches long, and thereby exposed the surface of the ovarian tumour, which was found to be multilocular, with one large cyst in front. This large cyst was tapped with a trocar and canula, and emptied of some very gelatinous fluid. The adhesions (which were not very firm) were next broken up, and the tumour was gradually drawn outwards. Some further adhesions were now broken through by the hand, and the pedicle of the cyst was exposed. It was now tied, first with a wire, and then with a double whipcord ligature, and divided.

The tumour was composed of numerous cysts—many of them extending in different directions—it was presumed that all had been wholly removed. It was discovered, however,

that another fluctuating tumour became immediately prominent, and as this had the general appearance of the other growths, it was believed to be an ovarian tumour springing from the right ovary, and really seemed to be so on examination. It was consequently tapped, and clear fluid flowed out. On attempting to lay hold of it, it was found to be a gravid uterus, containing a dead fœtus; it was, therefore, not interfered with beyond closing the wound in its wall with silver sutures.

There was very little hæmorrhage attending the operation —perhaps three or four ounces of blood were lost. The abdominal wound was now closed by ligatures, with the ends of those attached to the pedicle hanging out of the lower end of the wound, and the patient conveyed to her bed.

In some clinical remarks made by Mr. Pollock after the operation, he stated that the case was one of extreme interest. The tumour, he said, was multilocular, with one very large cyst containing much highly gelatinous fluid; the pedicle was connected with the left ovary, and was itself occupied by a small cyst. Having removed the tumour, he came upon another mass, which proved to be the uterus with a dead child, and containing besides a quantity of fluid. It so closely resembled a cyst, that he, as well as his colleagues, thought it was another ovarian cyst involving the opposite ovary; and on tapping it, out came a transparent fluid, and then some venous blood. Every precaution had been taken before the operation to ascertain the condition of the patient. Remembering that she had aborted five months before, it was probable, he observed, that there was a second fœtus which was not expelled at that time. The operation, so far as it had gone, was a sort of Cæsarean section, but he had not felt justified in proceeding further, thinking it better to let Nature take her course and the child come in the usual way. The prognosis he looked upon as necessarily most serious.

Towards evening the patient was seized with pain, and aborted, the child and placenta coming away. This did not produce the amount of depression that was expected, although she was weak. Next day she was free from pain, and perfectly quiet. In the evening she expressed herself as feeling pretty comfortable; but during the night she became very low, and quietly died. No post-mortem examination was permitted by the patient's friends.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 13.

FOOD *versus* FEVER.

We, like the rest of the world, seek relaxation at this time of the year in the country, or by the sea-shore, and there find ourselves haunted by the sewage difficulty, and assailed by villainous smells, just as if our feet were pacing the purlieus of the Strand instead of the green meadow or sandy shore. In a quiet, healthy, sea-side village, which shall be nameless, we have met with the following incidents: A respectable family, occupying a house at a high rent, complained of the pump-water. This was a somewhat milky-looking liquid of abominable odour, and most certainly consisted of soapy water, and other even more objectionable ingredients in house sewage, which had leaked from the cesspool into the well. In front of the house of the resident Physician ran a beastly ditch, along which the sewage of neighbouring houses was slowly trickling, and creating a luxuriant growth of rank grass on the hedgerow. As a corollary and concomitant of this state of things, was the significant fact that vegetables and fruit were at Covent Garden prices (*i.e.*, that anybody who wanted more than the coarsest descriptions of vegetables must get them from Covent Garden); that milk was scarce, and fresh butter hardly to be got even at London prices.

Whatever country town or village we go to, the same combination of facts meets us. Waste of liquid manure, and scarcity of garden produce and milk,—with summer diarrhœa, autumn typhoid, and rickety and scrofulous children as appendices. By the way, the difficulty of procuring milk in the country is so great, that it has attracted the attention of the Ladies' Sanitary Association.

We are convinced that if a wholesome state of things is to be brought about, it must be by continuous infusion of physiological truths into the popular mind, which can only be effected by members of our Profession. Country Medical men only can be missionaries of science, and enlighten the agriculturists who do not yet believe in the value of sewage as manure. They have every argument to enforce their teaching. Authority and experience are at one on this question. They may point to the regulations in the Mosaic Law, regarding the disposal of the sewage matter about the Hebrew camps. Every man was to take a shovel, and bury immediately his own excretions.

Four thousand years have passed since that command was issued, and yet the civilised man of the nineteenth century wants that teaching as much as the Hebrew did. Let the state of the Confederate camps, according to the testimony of Dr. Chisolm, and the filth which surrounded the English encampments in the Crimea, and still does in India, be witnesses.

But all experience shows that sewage matter is not only good for land generally, but that the sewage as it is delivered from the drains of modern populous towns is specifically the substance best calculated to promote the produce of grass and hay, and therefore of milk; the *sine qua non* in the rearing of children. The evidence given before Mr. Brady's Committee is unanimous on this subject.

As time goes on we hope to see a larger number of Medical Members of Parliament; and if they make it their vocation to imitate Dr. Brady, in instituting the public searching inquiry of a House of Commons Committee into the facts of any branch of social economy, they will do well. (a)

Towns *must* dispose of their sewage. Engineer-ridden London is spending between two and three millions to get rid of hers, in a manner that entails no return whatever. Even if the scheme answers, which is doubtful, the result will be waste,—mere loss.

But the evidence before Mr. Brady's Committee confirms abundantly what has long been a matter of scientific faith,—that sewage can be got rid of, easily and absolutely, without nuisance or odour, by passing it over land.

It would be well if the clergy who spend so much time in teaching the minutiæ of the Mosaic law to the children in national schools, would call their attention as fully to the sanitary and economic precepts—to the laws of washing and purifying; to the separation of women, and to the disposal of filth—as they do to the ceremonial and typical portions.

The evidence of Mr. Fenton, with regard to the Croydon Sewerage Works, shows that when the sewage has been twice passed over land, it is indistinguishable from common water. Dr. Dundas Thomson has made experiments which prove that the sewage before passing over land contained 39·10

(a) "First Report from the Select Committee on the Sewage of Towns," ordered by the House of Commons to be printed, April 10, 1862. Price 1s. 3d. This Report should be circulated amongst farmers and country folk.

grains per gallon, of which 12·80 were organic; after passing over the land, 23.85 grains, of which 2·90 were organic. Meanwhile the water of the Wandle, *above* the outfall of the Croydon sewer water, contained 22·90 grains to the gallon, of which 3·50 were organic. So that the sewage becomes reduced to the condition of common river water.

All evidence proves that the effect of sewage in promoting the growth of grass is wonderful. It produces heavy crops *early in the season.* Common grass is improved in quality. It becomes, compared with its former self, what a fat Berkshire hog is to its lean and gaunt progenitors of the forest. "Mr. Tebbitt told Mr. Fenton, that it did not matter what grass was sown on the lands irrigated, for that it all became what he called a *sewage grass with a bulb at the bottom.*" The quantity of grass may be raised by a liberal application of the sewage from 9 tons 5 cwt. to 32 tons 17 cwt. per acre, as proved by experiment.

Actual experiment is also defining the conditions under which sewage can be applied most inoffensively and effectually. The best condition is presented when it can flow by its own gravity to a level grassy slope. When the site of its application is near the town, it seems expedient to allow the solid matter to subside before passing the sewage on to the soil. And in doing this, to adopt the system of *upward filtration* which has been for some time used in Australia, was suggested by the late Prince Consort here, and has been successfully applied at the grounds of the Wellington College. Religion, authority, science, and physiology, now all show the duty, and, consequently, the profit of the application of sewage to the soil. So we say to our country friends, in the name of hospitality, "Give us milk and butter for our children when we visit you, and no sewage with our pump-water."

MEDICAL EDUCATION IN MANCHESTER.

(*From a Correspondent.*)

Manchester is honourably distinguished by having formed the first Provincial School of Medicine, and it undoubtedly presents great advantages as a place of training for the future members of the Profession. In Owens College—a Collegiate institution in connexion with the University of London—ample means are afforded for the prosecution of that course of preliminary instruction which *must* in future take precedence of the more exclusively Medical curriculum. In pursuance of a regulation of the University providing for provincial examinations, examinations for the degrees of B.A. and B.Sc., and also Matriculation examinations, are now held, at stated periods, in the Hall of Owens College; and a matriculated student of the University, besides being enabled to proceed to the degrees of M.D. and M.B., is admissible, by the regulations of the Royal College of Surgeons of England and of the Apothecaries' Hall of London, to the Fellowship and Membership of the College, and to the Licence of the Hall without any further examination in Arts. Also, the Matriculation examination of the University of London is recognized by the General Medical Council as qualifying, without further Arts examination, for the registration of all persons commencing their Medical studies after October, 1861. The student can thus complete his preliminary education on the spot, without having to proceed to London for that purpose.

The Manchester Royal School of Medicine and Surgery, being the amalgamated schools of Manchester, comprises in its course of instruction all the lectures required to qualify for examination at the London University, the Royal Colleges of Physicians and Surgeons, and the Apothecaries' Company. The students of this School also are admitted to degrees in Medicine, and for the honours, exhibitions, and scholarships conferred by the University of London. Three scholarships, of the values respectively of £20, £15, and £10, are open to the competition of perpetual pupils, and emulation is still further stimulated by the award of prizes and certificates of honour. The lecturers are well qualified for their duties by practical acquaintance with their several departments of study. It may be mentioned, in passing, that the Founder of the School, Mr. Turner, still worthily fills the chair of Anatomy and Physiology, and that of the chair of Chemistry the celebrated Dr. Dalton was the earliest occupant. For the elucidation of the various lectures, and for the inspection of the students, there is a magnificent Museum of Human and Comparative Anatomy replete with valuable preparations illustrative both of natural and morbid structure as well as of the higher departments of Physiology, also a Museum of Materia Medica and a Chemical Laboratory.

The Dissecting-room is under the supervision of a Demonstrator: in it instructions in practical anatomy are given daily, Saturday excepted.

In the immediate vicinity of the Royal School of Medicine is the Manchester Royal Infirmary. Manchester is fortunate in possessing an Hospital, which, in the extent, variety, and interesting nature of the field of study offered to the student of Medicine, is believed to be unequalled, and is certainly not surpassed by any Hospital in the Kingdom. Besides being itself the most populous town in the most populous county in England, Manchester forms the centre of a vast manufacturing district, every part of which contributes its share of the diversified and frequent casualties of which machinery is the fruitful source.

The Accident-room, in which the pupil generally makes his first essay in Hospital practice, is daily crowded with a number of minor accidents. On these the students freely exercise their skill, under the supervision of the Assistant House-Surgeon. The Hospital possesses 277 beds, constantly filled with interesting and instructive cases, the applications for admission being so numerous and pressing as to exclude all of a more ordinary description. It may be truly said:—

"Hic patet ingeniis campus, certusque merenti
Stat favor: ornatur propriis industria donis."

Operations are necessarily very numerous under circumstances so naturally productive of frequent and severe injuries. There is also a Library, rich in Medical literature, and an excellent Museum, to both of which students have access.

The Salford and Pendleton Hospital and Dispensary, the Ardwick and Ancoats Dispensary, and the Chorlton-upon-Medlock Dispensary, are all excellent institutions, in which the student may advantageously prosecute his general Professional studies, but of which a more lengthened description is omitted here as unnecessary, on account of the vastly preponderating importance of the Royal Infirmary.

It remains to direct attention to such of the Hospitals for special disease as are likely to interest the student. Foremost of these is St. Mary's Hospital for Lying-in Women and the Diseases of Women and Children, founded in the year 1790, with which are connected the names of Charles White, Hull, Kinder Wood, and Radford. The Hospital possesses accommodation for 100 patients, a special wing containing fifty beds being set apart for the diseases of children. Abundant opportunities are afforded for an acquaintance, theoretical and practical, with the Obstetrical art. In the wards the student will find the means of becoming expert in the investigation and treatment of female disease, a qualification of great importance.

Connected with the Hospital are a valuable Medical library and a museum, both the gift of Dr. Radford, the present Consulting Physician.

The Eye Hospital, in which upwards of 2000 patients are admitted annually, furnishes extensive opportunities for the refined and attractive study of diseases of the eye.

There is also a Lock Hospital and an Ear Institution, to which students are admitted.

Scale of Fees.—Perpetual fee at the School of Medicine for

the whole of the lectures requisite to qualify for the examinations, 40 guineas. Fee for Hospital Practice at the Royal Infirmary, perpetual, 52 guineas. Fees at St. Mary's Hospital: Six months, £2 2s.; perpetual, £5 5s. Fee at the Eye Hospital, perpetual, £5 5s.

MEDICAL EDUCATION IN EDINBURGH.

(*From a Correspondent.*)

In common with many other good things, lectures are not in season here for a whole month after they have been obtainable in the English market.

So Æsculapius, jun., must moderate his sacred rage for knowledge until the end of October, when, if he do not possess a University degree in Arts and intend to graduate, he will be admitted to a preliminary examination, the subjects for which he can hear of by writing to the Dean or Secretary six months before.

To anyone with a gentleman's education this is by no means a terrible ordeal, though every prudent individual would make some little preparation for it. Our friend may defer this as long as he pleases, but must pass it *before* he is admitted to the first preliminary professional examination. There are two or more such examinations in the year for the convenience of the diffident.

The first ideas which will occur to the newcomer will most probably be connected with board and lodging. If he is a sensible fellow, 35s. will have taken him in great comfort from London to Edinburgh by the night mail, either by the Great Northern or Caledonian lines. He had then better hail a ticket-porter, who will wheel his luggage on a "hurley" to some hotel in Princes-street. Thence, after a bath and breakfast, he may sally out to look for a roof to cover him. Should he desire to board with a Medical man, many of our Profession live in houses too large for them, and take boarders at the rate of £80 to £100 a-year. But the necessary arrangements are usually made before the student's arrival.

Of boarding-houses properly so called, there are several, and of course vary with their charges from the stained table-cloth and greasy gravy style to the hot-plate and table-napkin standard of excellence. There is, unfortunately, no collegiate residence in Edinburgh, and the majority of students live in private lodgings. In the selection of the latter, several matters which at first sight appear trivial should be borne in mind.

First, which side of the ravine, which divides the town into North or South divisions, should he live upon? On the latter the Schools are situated, the temperature milder, and the lodgings cheaper. In Clerk-street, Keir, Rankeiller and Lothian streets, with several others, two rooms may be obtained, with fire, light, and attendance, for from 8s. to 15s. a-week. Let the newcomer beware of the dirty, unwholesome kennels termed bed-closets, and rather be satisfied with one good room than a sitting-room with a cœcal appendage containing a bed and frequently certain creatures which love darkness rather than light, and which he need not study till the second Summer Session. I feel satisfied that many cases of fever, and what is generally termed low health, may be referred to persons sleeping in close unwindowed rooms. The streets I have mentioned are within a few minutes' walk of the College; but a student requires exercise. Soon the days will become short, and when the "fields are dank and ways all mire," it is as well that he should be compelled to take exercise by having his residence some distance from the inevitable lecture-rooms.

In Northumberland-street, Howe, Frederick, and Castle streets in the New Town or northern part of the city, he may get good rooms for 15s. to £1 a-week; the furthest is twenty minutes' walk from the Schools, but with goloshes and gaiters he will soon learn to defy the elements. Compared to the rent of lodgings in London and elsewhere, Edinburgh may seem expensive; but it must be borne in mind that there is no vicarious feeding here, there is no landlady of the traditional kleptomaniac type; the Scotch student's lodging is his home, where he can get a well served and cooked breakfast and dinner at what hour he pleases to fix upon; and the staple viands, beef, mutton, and fish, of great variety, and very cheap, are to be obtained at prices a Southern housekeeper would scarcely credit. A man may live well and like a gentleman, lodging included, with as much beer as is good for him, for one pound a-week. Should he prefer dining out, he can get a good cheap dinner at the Café Royal in Leith-street, or the Rainbow, but he will increase his weekly expenditure by about one-half. Three classes of students come here: the beginner, who intends to graduate; the apprentice who has completed his time, and who intends to take a Surgeon's diploma; and the matured gentleman, who, having studied at other Schools, proposes to pass one year with us, and take the M.D. degree.

If I were to be asked what are the greatest merits of the Edinburgh School, and in what respects it differs from others, I would say:—1st. In being condensed; all the lecture-rooms are near each other,—a necessity in our climate. 2nd. There is perfect free trade in teaching; a student, with certain restrictions, may attend any authorised teacher. If he prefer Jones to Brown, he takes Jones's class out, and Brown says "he is very glad to hear it." Of course, the Professors are older and generally more eminent men; the extra-mural lecturers are young hard-working teachers: the former enjoy the "golden sweetness of ensured repose;" the latter are striving towards that reward their elders have merited and won. But this jumbling together of great and small, young and old, has its peculiar advantages, which are more to be observed among the taught than the teachers. If an Edinburgh man works at all (and I, who know most of them, could only name one or two who do not), he does it with a merry determination to conquer all difficulties. Men soon become individualised, and identify themselves with some branch of study. If they think they can learn it from one man better than another, they go to him of their choice. The microscopic man laughs with and at his brother who only uses the scalpel, and the latter howls his friendly chaff at the man who has given himself up to Botany or Chemistry; but each man has his "*Bachelor's Wife*," his mind's mistress, and is determined to do her honour; so you find in Edinburgh even very young men bringing forward valuable contributions to science, and acquiring that habit of patient investigation and good-humoured tolerance of varied opinion which makes this world so pleasant. The expenses of this School I append, which need frighten no one:—

First Year Winter Session.

	£	s.
Anatomy	4	4
Chemistry	4	4
Hospital (perpetual)	10	0
Clinical Surgery (Monday and Thursday)	4	4
Clinical Medicine (Tuesday and Friday)	4	4
Anatomical Demonstrations (with dissecting-room)	3	3

First Year Summer Session.

Botany	4	4
Fee for Garden	0	5
Anatomical Demonstrations	2	2
Clinical Surgery	3	3
Clinical Medicine	3	3

Second Year Winter Session.

Anatomy	4	4
Physiology	4	4
Clinical Surgery	4	4
Clinical Medicine	4	4
Hospital Anatomical Demonstrations, Dissecting, etc.	3	3

	£	s.
Second Year Summer Session.		
Natural History	4	4
Practical Histology and Use of Microscope (not absolutely necessary)	3	3
Comparative Anatomy	Free.	
Anatomical Demonstrations and Dissections	3	3
Third Year Winter Session.		
Materia Medica	4	4
Surgery	4	4
Pathology	4	4
Third Year Summer Session.		
Medical Jurisprudence	4	4
Medical Psychology	Free.	
Fourth Year Winter Session.		
Practice of Physic	4	4
Clinical Medicine	4	4
Clinical Surgery	4	4

As the financial story is so shortly told, I may go now into the general question. Why should I prefer Edinburgh for a man learning the Medical Profession? Why should I prefer it as a home for my son while he is preparing to fill his father's honoured shoes?

My answer to the first is, that the place is devoted to education and exercise; the coldest hearted and least enthusiastic novitiate must surely feel his heart beat quicker when he first walks into the old School of the Monros: if the soldier has a "*bâton*" in his knapsack, the freshman now wandering listlessly in the quadrangle has a "*chair*" in his head, may be some day a Professor. Then every one is learning something, "Don't bore me with your mathematics or small talk, I'm reading 'Syme's Surgery.'" What are you going to do this evening? Answer—*Read.*

Now this would be very wrong elsewhere, in crowded London streets and other educational localities, but let me answer my question: Five minutes from any part of the town is time enough to walk into pure, fresh country air, as it blows over the Pentlands, or comes up raw and misty from the east. Still it is fresh air. The Demonstrator, after teaching 400 students, rushes by rail to Granton for 6d., and while the blue Frith of Forth plashes its ripples at his weary feet, he is purified from the necessary impurities of his calling: so are his pupils.

Yes, my son shall study Medicine in Edinburgh, and so reader should yours if you wish him to properly fill his father's honoured shoes. And when you and I are both old men, or when the sod of the valley is green above us, he will keep our memory green too, and that of the dear old place

"Where Learning with his eagle eyes
Seeks Science in her log abode."

THE WEEK.

STATISTICS OF THE METROPOLITAN GENERAL HOSPITALS.

A MEETING was held at Guy's Hospital on June 21, 1861, for the purpose of sanctioning and adopting one uniform system of registration of patients in the General Hospitals of London. Delegates from nearly all the Hospitals were present, and a series of resolutions as to the mode of registration and the form of register to be adopted were passed. It was announced that the Council of the Statistical Society had undertaken to publish in their Journal some of the leading statistics, if the necessary information were provided annually, and it was resolved that the authorities of each Hospital be requested to furnish the requisite data. Accordingly the last Number of the *Statistical Journal* contains a series of tables, compiled from the returns of the various Hospitals, which, although not so perfect in detail as could be wished, constitutes a very acceptable instalment of information. The first thing which strikes the reader of these tables is the enormous aggregate of disease and injury treated in the wards of the London Hospitals. The total number of in-patients during the year 1861 was 35,506. This, which surpasses the number of the entire population of many a provincial city, and exceeds that of one English county, it will be remembered represents only cases of serious illness; none others, as a rule, obtain admission as in-patients. Of these 3065 remained in Hospital on January 1, 1862, 3131 died, 884 were discharged for special reasons, 929 were sent out unrelieved, 7561 relieved, and 19,950 were dismissed well or convalescent. The average rate of mortality was 9·5 per cent. If we classify the London Hospitals according to their size, we find six—St. Bartholomew's, Guy's, St. Thomas's, the London, St. George's, and the Middlesex—admitting each annually upwards of 2000 patients, the maximum return being made by St. Bartholomew's, 6124—the minimum by the Middlesex, 2265. The next group contains St. Mary's, the Westminster, King's College, the University, the Royal Free, and Charing-cross; in them the number of in-patient admissions ranges between 1000 and 2000. Of these the maximum is furnished by St. Mary's, 1822—the minimum by Charing-cross, 1023. In the third group are two small Hospitals,—the Metropolitan Free and Great Northern; the number of in-patients admitted at these last year was, respectively, 154 and 150. Subjoined is the death-rate for 1861 in each :—

	Per cent.
St. Bartholomew's	10·7
Guy's	9·4
St. Thomas's	9·7
London	8·4
St. George's	8·3
Middlesex	11·7
St. Mary's	10·1
Westminster	9 6
King's College	10·7
University	11·2
Royal Free	6·0
Charing-cross	8·3
Metropolitan Free	6·8
Great Northern	8·2

It will be seen from these figures that the size of the Hospital appears to exercise but a minor influence in determining the rate of death. The highest mortality took place amongst the 2265 patients in the Middlesex and the 1386 in the University. The death-rate of the 5360 patients at Guy's was slightly below the average, whilst that which occurred in the huge sick population at St. Bartholomew's was no higher than that of the 1452 patients at King's College. It is true that the instances of the smallest mortality are to be found in the returns of the small Hospitals, but the deaths at the London and St. George's,—the former with 4520 patients, the latter with 3981,—are both below the mean standard. The other causes which have influenced the rate of death can only be a matter of speculation, as the tables furnish no information as to the nature of the diseases and injuries, the hygienic conditions, or the general character of treatment adopted. The returns, however, enable us to contrast the relative fatality of Medical and Surgical diseases as seen in the wards of the London Hospitals. The total number of cases in the Medical wards in 1861 was 13,346; the total in the Surgical, 18,236. It is a remarkable fact that the death-rate of the former was more than double that of the latter. The average mortality in the Medical wards was 12·9 per cent.; that in the Surgical 5·6 :—an apt illustration this of the greater fatality of diseases of the internal organs than of accidents to, and diseases of, the periphery. The per-centage of deaths amongst Medical cases shows the greatest variation. The largest average is that of St. Bartholomew's, 18·7 per cent.; the smallest that at the Metropolitan Free, 7 9. St. George's and the Royal Free are also both low; the former 10·9, the latter 10·5. The highest mortality amongst Surgical cases occurred at St. Mary's, King's College, and University College Hospitals; the per-centage in these Hospitals being 8·5, 8·2, and 8·0 respectively. The smallest number of deaths amongst

*

Surgical cases is returned by the Royal Free, 4·8 per cent. In the three great Hospitals, St. Bartholomew's, Guy's, and St. Thomas's, the mortality of Surgical cases is nearly identical, viz.,—St. Bartholomew's, 5·6, Guy's, 5·6, and St. Thomas's, 5·5 per cent. Surgical cases are kept longer in Hospital than Medical; the average for the former is thirty-five days, for the latter thirty-one. The great endowed Hospitals of St. Thomas and St. Bartholomew afford the longest shelter to their patients. The mean residence of Surgical cases at St. Thomas's is fifty days, of Medical cases thirty-nine; at St. Bartholomew's the mean residence of Surgical cases is forty-four days, of Medical, thirty-six. Such are some of the facts brought to light by the first endeavour to systematise the information to be derived from this vast field. The statistics of but one year cannot in themselves be of very high value, and there are many omissions in the returns of certain of the Hospitals which lessen the value of some of the results. This is especially the case in the tables specifying the sexes of the patients. Still, we think it scarcely possible to overrate the importance of the series which the appearance of these tables promises. We trust that the authorities of the London Hospitals will show their sense of the obligation which they, together with the whole Profession, owe to the gentlemen who have inaugurated the movement, and to the Society which has undertaken the publication of its results, by adopting the excellent scheme of registration which has been proposed, and by annually furnishing the fullest and most correct returns in their power.

POISONOUS PARTRIDGES.

In the *Times* of Wednesday last is a letter from Mr. F. Taylor, of Romsey, giving an account of some cases of poisoning by the flesh of Canadian partridges. It appears that in Canada, when the snow is on the ground, the birds are forced by hunger to feed on certain berries which render them unsafe for human food. What these berries are does not appear. Mr. Taylor's account of the poisonous effects produced is as follows:—

"On the 8th of last March I was sent for hurriedly to a lady who was described as dying. I found her cold, insensible, and pulseless. She had been sick while lying upon her back. I forced her to swallow a wine-glassful of brandy, and took other measures for some hours to stimulate and recover the warmth and circulation, and partially succeeded. She remained, however, insensible and almost in a hopeless state for many hours; at last, gradually recovering, but for several weeks suffered from ill health in many ways. On regaining her consciousness, and during the whole of the following day, she experienced a most uncomfortable sensation of 'acute thrilling,' especially on the slightest movement of the muscles of the face. I suspected poison in this case, but I could not recognise the symptoms of any one poison in particular. I found that the lady had dined about two hours and a-half previously to the attack, and that she had eaten part of one of these Canadian partridges. The birds were perfectly fresh, having been packed in ice. Five days after this occurrence I was sent for hurriedly to see a younger lady, the wife of a gentleman who had had a case of partridges sent him from Canada, and who had presented a brace of them to my first patient. I found this lady cold and pulseless, and feeling paralysed, with 'a peculiarly horrid thrilling sensation all over her,' and a very painful sense of constriction in her throat. She had eaten for supper heartily of one of these Canadian partridges, and within a few minutes felt ill as I have described. I gave her mustard emetics, and afterwards brandy in large quantities; and gradually, after many hours of intense suffering, the lady recovered, and in a few days regained her usual good health. On the night of her extreme illness, while sitting in the bedroom, I noticed a young cat there which, in attempting to move, fell over on its side, and upon lifting it up I found the hinder legs paralysed, so as to be quite useless; and upon the poor thing attempting to walk or leap it fell helplessly on its side again. The lady told me that during supper she had thrown to this cat some bits of the partridge. It was found that the poor thing had been thoroughly sick. The cat continued to be paralysed, but gradually recovered in a few days, no doubt saved by the natural act of vomiting. My impression is, that the younger lady might have recovered without help; but she was, I am certain, very materially benefited by induced sickness and by large doses of brandy. The elder lady, I feel sure, would have died unless prompt and continued strong measures had been taken to keep the flickering and almost exhausted flame of life burning."

It has long been known that the poisonous principles of certain plants retain their properties after having passed through the digestive laboratory and become incorporated in the tissues or secretions. Modern chemistry, by showing that the vegetable alkaloids pass through the animal body undecomposed, and may be detected under favourable circumstances, has only confirmed a very common observation. The flesh of hares which have browsed on the *Rhododendron chrysanthemum*, and that of young pheasants after feeding on the buds and shoots of the *Calmia latifolia*, acquire deleterious properties. So also the milk and flesh of cattle grazing on some of the mountain herbage of South America have been found poisonous. Some time ago several persons near Toulouse were poisoned by a dish of snails which had been fattened on the leaves and shoots of *Coriaria myrtifolia*. In all these instances the vegetable principles seem to be incapable of affecting the animals themselves. The poisonous effects of honey obtained by bees from certain species of Calmia Azalea and Rhododendron are also well known. It is said that the plague mentioned by Xenophon, from which the 10,000 Greeks suffered in their retreat, was produced by eating honey collected from the Azalea Pontica—the Œgolethron of the ancients. The effects produced by such honey are of a narcotico-irritant character, and in some instances have been of long duration. Even the mead made from it is highly poisonous.

"FRUGES CONSUMERE NATI."

Great undertakings have small beginnings. About a hundred ladies and gentlemen have lately met at the Crystal Palace with the avowed intention of changing the whole human species from omnivores into herbivores, and, by that means, of spreading universal peace, goodwill, and happiness. The idea, although not entirely new, is sublime and suggestive. Mr. Darwin alone is capable of foretelling the anatomical, physiological, and psychical transmutations which may be expected to result. We know not yet what we shall be. Another development of Bimana may be expected, not, however, by the natural selection of individuals, but simply by an unnatural selection of vegetables. In time we may perhaps obtain the capacious cœca of the perisso-dactyles, our appendices vermiformes may become expanded, or, at least, our stomachs may become endowed with the complexity of that organ in the Ruminants. Our teeth would not require much alteration, for, according to Professor Owen, they were evidently formed, in the first instance, to masticate "the fruits of the garden." One of the lines of distinction which has so long divided us from our dietetically wiser subordinates, the frugivorous apes, will be demolished, and our muscles may again rival the thews of the gorilla. Really a grand future opens on us. Of course a few truths, chemical, physiological, pathological, and historical, must be ignored, and the natural instinct of Man to eat what is best for him must be overcome; but what of that? The apostles of vegetarianism have an unwavering faith, and what cannot faith do? Cattle markets will be of no more use than Roman amphitheatres, and the butcher and surgeon will disappear together. The report tells us that the non-progress of vegetarianism during the last ten years has been simply owing to the ferocity of spirit created and perpetuated by the Russian war, which to this day has in no degree abated. "While men were engaged in encouraging, without compunction, and even with studied

delight, the destruction of human life produced by war, it was useless to expect any consideration towards the lower orders of animals." It might be objected that M. du Chaillu's simian antagonists are somewhat more ferocious by nature than the omnivorous dog, and that even certain cannibals are by no means bad sorts of fellows—when they are not hungry. But what we want to know is, supposing that universal Man gave up slaughtering for food, how is the increase of other vegetable feeders to be checked? Vegetarian society, in self-defence, would have to import lions and crocodiles, or it would soon find its markets empty. Seriously, the fancies and vagaries of mankind on the subject of diet might reasonably furnish our mental nosologists with a new variety of insanity. Even in the nineteenth century can the force of folly go farther?

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

SUCCESSFUL CASE OF TRANSFUSION.

By Dr. WEICKERT.

Dr. Weickert relates the case of a woman, aged 43, who was seized with profuse hæmorrhage shortly after the birth of her eleventh child. Called to her some hours afterwards, he found a relaxed uterus and detained placenta, while the patient was pallid, restless, and almost pulseless. He obtained the discharge of the placenta, and for the next two hours little blood came away; but the woman, so far from rallying, in spite of all the means employed, exhibiting signs of approaching dissolution, Dr. Weickert resolved to have recourse to transfusion. In its performance, which was a matter of difficulty in a small dark room, and with insufficient assistance, Martin's glass syringe was employed, and his rules adhered to. The vena mediana was exposed, and divested of its cellular tissue to the extent of half an inch, in order to admit of its puncture by the trocar; but as during a movement of the patient the canula slipped out and had to be replaced, the vein was still further exposed, and a thread passed through it, so as to keep the aperture in contact with the canula during the injection. Some trouble occurred in obtaining the necessary blood, as the woman's son, who first afforded it, and a woman who succeeded him, successively fainted. Partly from this cause, but more, as it would seem, from the defectiveness of the syringe employed, great difficulty occurred in preventing the blood coagulating, and at last the tubes became completely blocked up; so that it was impossible to say exactly how many ounces were really injected. The woman's general condition did not at first seem much influenced by the operation, during which she retained her consciousness. She even had another fainting fit after its completion, accompanied by the same pulselessness and restlessness; but she rapidly recovered from this, and it never recurred. Her "getting-up" was completely normal, and no phlebitis ensued upon the violent handling the vein had been submitted to.

Dr. Weickert properly states that in any future case he will employ the lancet or bistoury in making the opening, in place of the trocar, which does much more violence to the vein; and he also intends substituting a metallic for a glass syringe, this last not admitting of so perfect a vacuum being formed, and forcing more the cooling and coagulation of the blood. Adverting to the causes which have prevented this operation being more frequently resorted to, he says that these are chiefly the following:—1. The uncertainty in the prognosis afforded by the indications. Thus, in a case of his own, in which transfusion was under consultation, the case not seeming yet sufficiently desperate, the patient died during the deliberations. 2. Sufficient assistance cannot be always procured in time; and it would not be prudent to proceed to the operation entirely unaided by professional persons, inasmuch as one or more of other assistants may faint away. 3. Opinion is much divided still as to the utility of the operation. 4. It certainly is easier to allow the patient more or less gradually to sink than to undertake, perhaps amidst the most unfavourable surrounding circumstances, the difficulties of such an operation.—*Deutsche Klinik*, No. 23.

EXCERPTA MINORA.

Tubercle of the Pituitary Gland.—Dr. E. Wagner relates the autopsy of a girl 13 years of age, who, though born of an entirely healthy family, had always exhibited intense scrofula. Convulsions, which came on suddenly, terminated her life in a few hours. The brain was large and the ventricles were normal; but the entire mass of the pituitary gland was converted into a firm, irregular tumour, half the size of a cherry, which was only removed from its cavity with great trouble. On section, the surface was found somewhat friable, devoid of vessels, smooth, and of a yellowish-grey colour. Under the microscope round, medium-sized, unatrophied nuclei were equally distributed amidst a spare homogeneous basis. The lungs did not contain tubercle. The rarity of the case is shown by Rokitansky's statement that tubercle of the pituitary gland is seldom met with, and always in connexion with tubercle of other organs, especially of the brain and lungs.—*Arch. der Heilkunde*, 1862, p. 382.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

There is perhaps hardly any case throughout Class 17, the contents of which are more remarkable than those of that sent by Mr. Nyrop, of Copenhagen. This maker, who is also "Professor of Surgical Instruments" in the University of that city, now proves that he is not only capable of fully appreciating the labours of his contemporaries in other countries, but that his claims to real originality are well founded. I trust to be enabled this week to prove so to the readers of the *Medical Times and Gazette*.

For many years Mr. Nyrop has tried to produce an instrument that could (1stly) take hold of a bone and hold it, and (2ndly) saw it through from without inwards, close to the point at which it is seized, by the aid of such mechanical contrivances as would not require the advance of the whole instrument. He has at length succeeded in doing so, and his osteotome (Figs. 1 and 2) is without doubt a remarkably ingenious instrument, and likely to be useful in certain cases. The mode of action of this instrument will be easily understood by reference to the figures, which show it as seen from either side. I am, however, inclined to think that the small saws used by Mr. Fergusson, together with a few pairs of bone forceps of different sizes and curves, would be likely to render an operation more expeditious than the clever osteotome of Mr. Nyrop. He also exhibits instruments for the division of bone, one blade of which approaches the other in a parallel direction (Fig. 3) throughout its whole length, being set in motion by depressing a handle which acts on a rack. (I may here mention that the beautifully made lithotrite which is exhibited by Mr. Evrard on the English side, has a similar movement).

The next figure (Fig. 4) is that of an apparatus which is designed for cases of anchylosis of the knee-joint. Mr. Nyrop has been induced from watching the results which his experience has brought under his notice, to construct the supporting part of the instrument of round, hardened bars of steel (*g*, *g*, *g*), and recommends their employment in future in consequence of the good effects which he has noticed to result from them. The socket (*b*) takes its bearing just below the nates; the well padded leathern capsule (*c*) supports the knee; and the sloping foot-board (*d*) has a simple arrangement (*e*) which provides the patient with the means of progression. This is a very ingenious and useful apparatus. In such cases as render it necessary that the whole weight of the body should be received by the socket (*b*), Mr. Nyrop has found himself obliged to add the pelvic belt (*a*), which is attached to the upper part of the instrument at the joint (*f*).

The same maker exhibits some well-constructed instruments for the treatment of contracted knee-joint and curved tibia; that devised for the latter condition is very ingenious. He also shows a collection of apparatus for the cure of the different varieties of club-foot. In each of these he has

Fig.

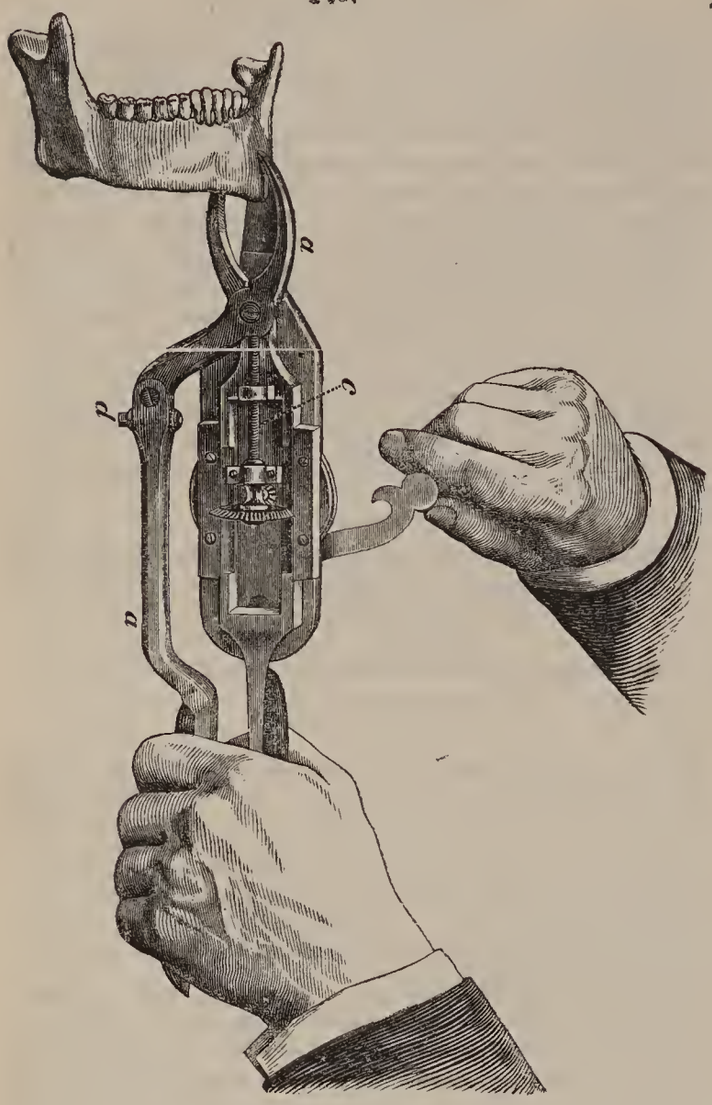


Fig. 2.

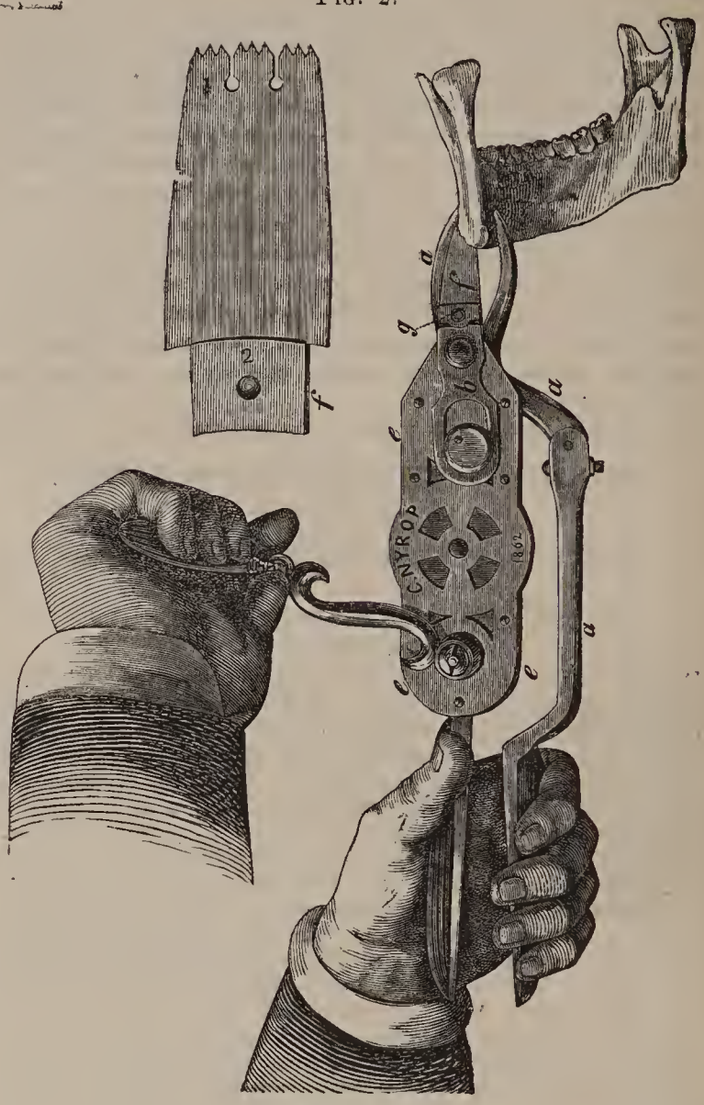


Fig. 5.

Fig. 3.

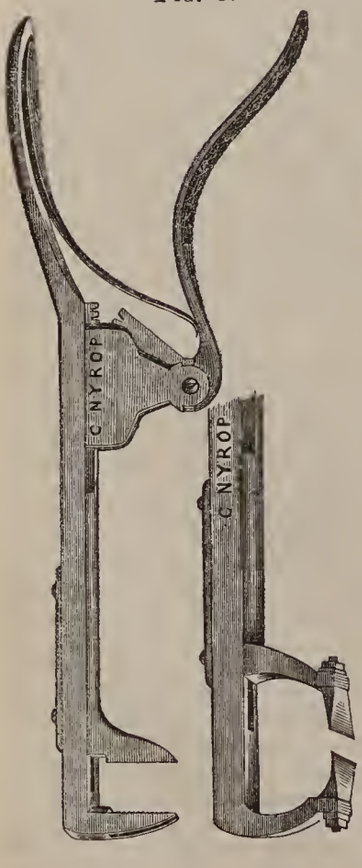
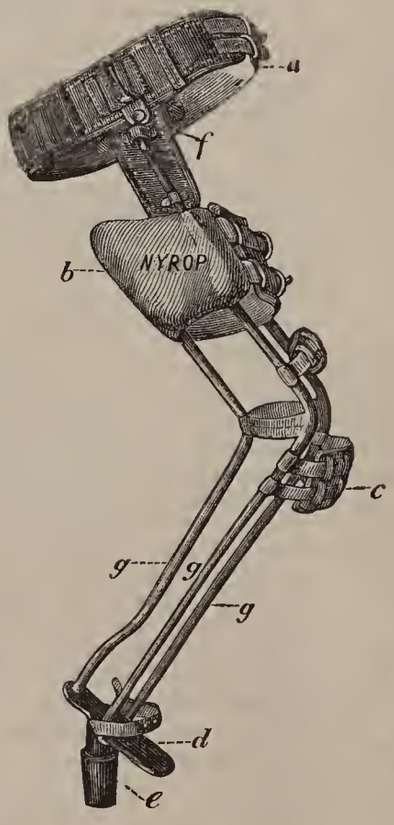


Fig. 4.



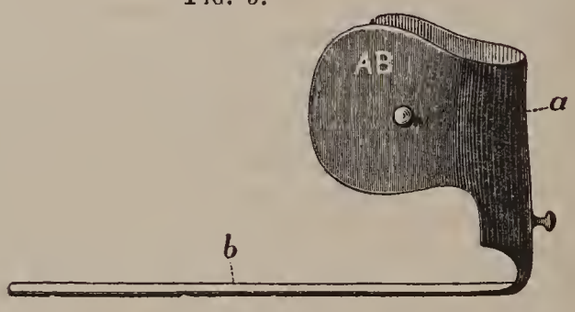
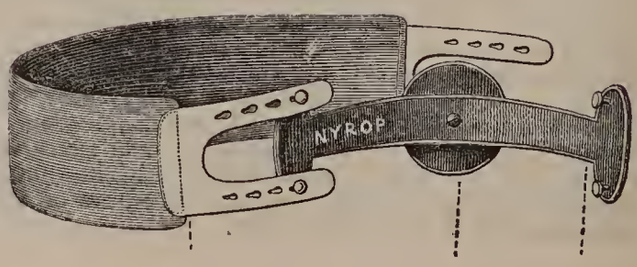


Fig 6.

Fig. 7.

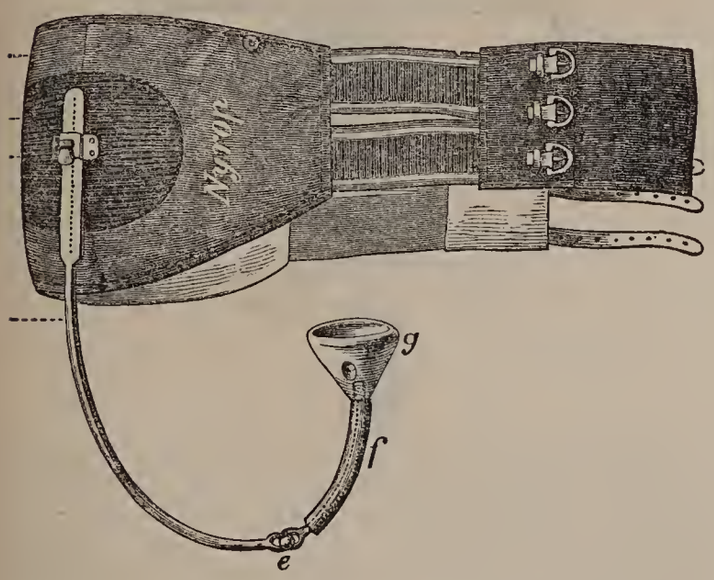


employed the ingenious method of fastening the instrument to the boot, which is shown in Fig. 5. This mechanism, which makes the two entirely independent of each other, and allows the patient to change his boots at pleasure, while it dispenses with the ordinary rivet, is due to Professor Buntzen, the Senior Surgeon to the Frederick's Hospital, Copenhagen. The metal bar (*b*), which is attached to the anklet (*a*), passes through the heel and enters the sole of the boot.

Figs. 6 and 7 represent two ingenious trusses for umbilical hernia. The former is an improvement made by Nyrop on that of Brünninghausen, and is evidently a very useful contrivance. The latter consists of a pad, attached to a single spring, and is suited to those cases in which the truss is not very liable to change its position. He also shows another belt in which the irreducible umbilical protrusion is received into the hollow of a leathern cup.

I shall have an opportunity, in an early Number, of publishing an illustration of the ingenious, though rather cumbrous pessary of Grandcollot (France). That of Nyrop (Fig 8) resembles it in some particulars. The individual instrument shown in the illustration is that intended to be employed by the poorer classes, and consists of a belt which encircles the lower part of the abdomen, having attached to it a curved

Fig. 8.



rod, jointed in the middle of its curve, and terminating in a hollow cup for the reception of the os and cervix uteri. This instrument has been spoken highly of by Professor Larsen, the Senior Surgeon to the General Hospital at Copenhagen.

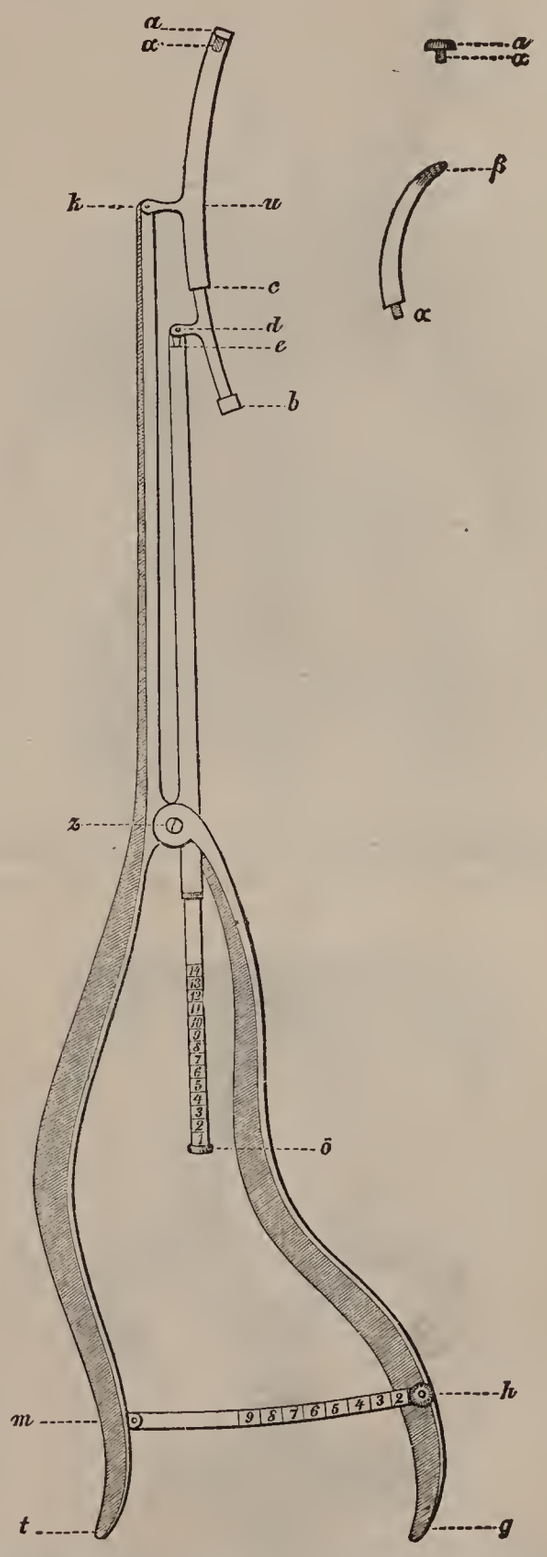
Mr. Nyrop also shows a great number of trusses of various construction. The pads of some are fixed, while others are attached by ball-and-socket joints to the spring. These latter, when they can be fastened by screws, have this inconvenience, that the size of the pad depends a good deal on the construction of the ball-and-socket joint; and what is still worse, the patient himself can adjust the pad, and so very often destroys the good effect of its application.

Fig. 9 represents the pelvimeter invented by Dr. Howitz. This is the most ingenious and practical instrument of the kind that I have yet seen. Its action will be readily understood by reference to the illustration. It is introduced in the position it occupies in the figure. The small bar (*b*) slides in and out of that marked *u*, and is made to enter it as far as possible by pushing the end of the rod (*b*). By approximating the handles (*g t*) the movable bar revolves into a horizontal position at the joint *k*, and by further bringing them together, the part (*b*) is drawn out still more until it is arrested by being brought into contact with the pelvis itself. The length of its diameter can then be read off by referring to the indices attached to the instrument.

Among the dental instruments exhibited by Mr. Nyrop are some ingeniously constructed keys, and a contrivance which he calls "claviforceps," and which very much resembles the "attractif" of M. d'Estanque, to which I have already referred. Mr. Nyrop evidently does not imagine that a complicated piece of mechanism, such as that to which I allude, is ever likely to supersede the ordinary forceps in experienced hands, for he says that he has constructed it for Surgeons in the provinces, whose supply of instruments is likely to be small. The claviforceps can be rendered suitable for the extraction of any tooth by changing the small blades, a complete set of which accompanies each instrument.

The instruments for the treatment of spinal distortion which Mr. Nyrop exhibits are of excellent construction and considerable ingenuity. Some six years ago he produced an instrument which exerted lateral pressure on the ribs by means of two padded plates, which were brought inwards towards the median line by means of a single screw, which, as it acted on an articulated parallelogram, caused one of them to ascend and the other to descend somewhat. The bad effects of lateral pressure thus produced soon became apparent, and Mr. Nyrop at once perceived that in cases where there is an axial rotation of the dorsal vertebræ, this instrument is likely to increase the evil, for antero-posterior pressure is then required. However, there are cases of extensive lateral curvature in which this apparatus may be worn with advantage.

Fig. 9.



After this somewhat unsatisfactory result, Mr. Nyrop constructed an artificial skeleton of the spinal column and ribs, so arranged as to be capable of assuming the various con-

tortions which are produced by disease. This and other experiments convinced him that lateral pressure in the treatment of lateral curvature should always be associated with pressure in front and behind. Since that date he has adopted the principle of spring pressure in the construction of instruments for the relief of spinal deformity, and I think they merit a thorough examination by all practical Surgeons. One advantage derived from the use of springs is, that the direction and extent of the pressure can be easily regulated; another is, that the pressure thus exerted is more effective than that produced by lacing together with webbing; and Mr. Nyrop thinks that it is very important that the rests, which act as crutches, should be connected with the back-spring, for they then give more support to the wearer.

Fig. 10.

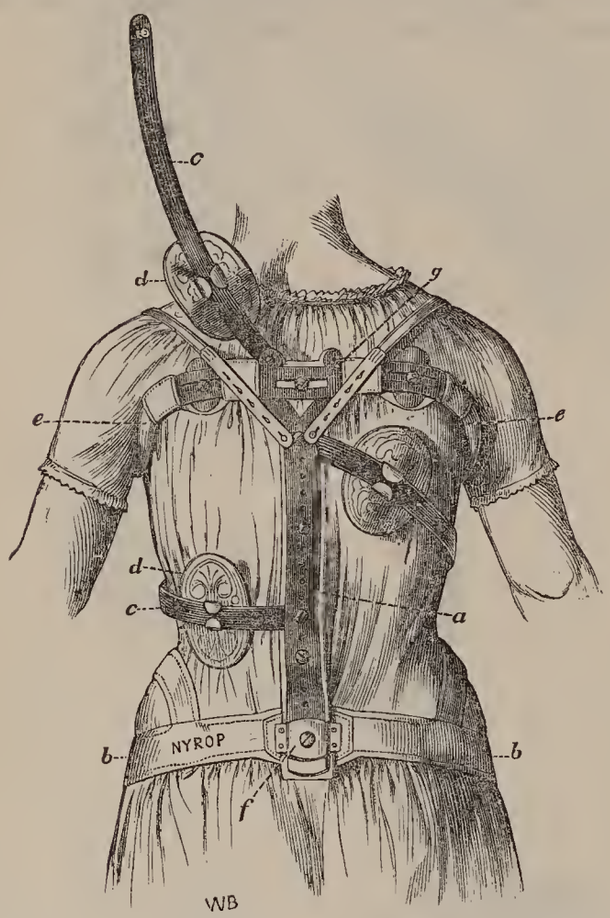
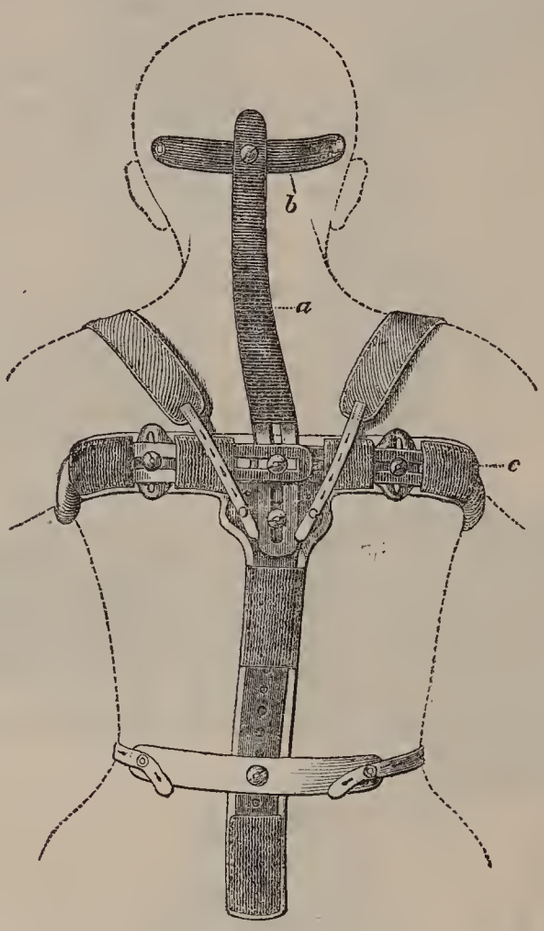


Fig. 10 represents Mr. Nyrop's apparatus for lateral curvature. It is supplied with one, two, or three, and sometimes

Fig. 11.

four local springs, according to the extent of the distortion. Fig. 11 is an illustration of his instrument for posterior curvature. The back-spring, which is here shown before it is padded, is split more or less, to receive the prominence of the deformity, and exerts a gentle, permanent pressure on the transverse processes of the vertebræ on each side. Mr. Nyrop's instrument for cases of lordosis is shown at Fig. 12. It has

Fig. 12.



a small back-spring, and an elastic abdominal belt. The head-piece which is attached to this apparatus may be screwed to any of the others, and may be very useful in certain cases of muscular contraction in the neck. These, and many other instruments which Mr. Nyrop exhibits, are of great interest, and I regret that space will not allow me to enter into fuller details respecting them.

47, Hans-place, S.W.

A boy of 13 is said to have died of apoplexy at St. Pancras, caused by over-eating.

Death from the Bite of an Adder.—On Tuesday, September 2, a girl named Maria Sewell, living in Bedford New-town, St. Pancras, was killed by the bite of an adder. It appears that the girl's brother had procured the reptile about a week previously, and kept it in a box, and she was proceeding to feed it, as she had been in the habit of doing for some days, when the viper suddenly darted out and bit her on the inside of the upper lip. She was immediately seized with extreme pain, and, in about twenty minutes, began swelling about the head and neck to such an extent that not a feature was recognisable. She died before she could be removed to University College Hospital. The papers have since recorded another similar accident. On Sunday, the 7th inst., a man named Edwin Marsden went out on a moor near Chesterfield to gather bog-bean. While so employed he felt a sharp sting on the hand, and looking down saw a viper of considerable size fast to his thumb. He instantly brushed it off and sucked the wound, but in a short time his hand and arm began to swell. He went home, but severe constitutional symptoms set in, and he was removed to Chesterfield in a cab for Medical assistance. He remains in considerable danger. It is stated that soon after sucking the wound his mouth and tongue became very much swollen, and it is with difficulty he eats. If this be the case, some crack must have existed about the lips or tongue, as it is well known that snake poison does not act through the unbroken mucous membrane of the alimentary canal.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, September 6.

M. CLAUDE BERNARD ON THE SYMPATHETIC NERVE.

M. Claude Bernard, who, as your readers are aware, was the first to discover the remarkable vascular and calorific phenomena which occur after the section of the sympathetic nerve,—such as constriction of the pupil, nostril, and mouth, increase of circulation, heat, and sensibility in the head, etc., —related, at the last three or four meetings of the Académie des Sciences, the results of further experiments of his, made on the same nerve, and which are of great importance. This distinguished Physiologist has already shown that the vascular and calorific nerves of the head are quite independent of its motor and muscular nerves; and he has now satisfied himself that the same relations exist in the extremities. Thus he found that, in the posterior extremities of an animal, he could produce *ad libitum* paralysis of motion and sensation without calorific symptoms; or paralysis of motion, sensation, and the blood-vessels; and, finally, he obtained vascular and calorific effects by the section of the lumbar portion of the sympathetic nerve only, while the spinal roots remained perfectly intact, and continued to spend sensibility and motive power to the parts animated by them. From this it appears that there are three distinct sorts of nervous influences for the posterior extremities, viz, (*a*) the sentient influence appertaining to the posterior roots, which enter into the composition of the lumbo-sacral plexus; (*b*) the motor or muscular influence appertaining to the anterior roots of the same plexus; and (*c*) the vascular and calorific influence appertaining to the sympathetic nerve. The vascular and calorific nerves of the posterior extremities are therefore quite distinct from the muscular nerves, both as regards their origin and their physiological properties. Experiments made on the anterior extremities yielded exactly the same results.

It is already known that all the phenomena observed after the section of the sympathetic nerve may, by galvanisation of the nerve, be made to disappear, or may even be exaggerated in an inverse direction. M. Bernard has now shown that the constriction of the blood-vessels and the diminution or stoppage of circulation thus induced, take place without any muscular contractions whatever; from which results that the muscles have two sorts of motor nerves, viz., (*a*) spinal nerves animating the muscular fibres and causing the muscles to contract; and (*b*) sympathetic nerves which cause the blood-vessels of the muscles to contract, and may thus modify the circulation in these organs without inducing any contractions in them. M. Claude Bernard therefore lays down the following general proposition:—The system of vascular circulation possesses a special vaso-motor apparatus, and the movement of the blood may be accelerated or retarded in the vessels, either locally or generally, without any participation in it of the musculo-motor system. The local and functional congestions which supervene periodically in certain organs, are instances of this independence of circulatory movements in physiology; while fever furnishes a striking example of it in pathology.

On the vexed question of the relations of the sympathetic nerve to the cerebro-spinal system, M. Claude Bernard expresses himself with great reserve. He does not think that the question as to independence or dependence of the sympathetic, can at present be satisfactorily answered. It is settled that the vascular and calorific nerves are special motor nerves. Before mixing with the mixed nerves, these sympathetic fibres emanate from the ganglions of the sympathetic, where they may always be traced, concentrated in a sort of plexus. They are afterwards distributed to the vessels in a special and exclusive manner, and cannot be replaced by the ordinary muscular nerves, because the motor nerves which animate the *fibres* of a muscle, are not distributed to its *vessels*. Moreover, the vascular and calorific nerves have special physiological properties and reactions to chemical agents. This is quite sufficient for justifying us in considering them special nerves.

M. Bernard then entered into the physiology of the submaxillary ganglion. All movements regulated by the sympathetic nerve are reflex movements, and as such quite independent upon volition. It is generally admitted that the brain and the spinal cord are the exclusive centres of all reflex movements, and that the ganglions of the sympathetic nerve are not to be considered as centres for the production of reflex actions, notwithstanding the presence of nerve-cells in their texture. M. Bernard has, however, proved that the submaxillary ganglion is the seat of reflex actions, which have nothing to do with the cerebro-spinal system. In man and all animals provided with a salivary apparatus, there exists in the course of the lingual nerve a small ganglion which has anatomical and physiological relations with the nervous system of the submaxillary gland. This ganglion varies as to volume and situation in the different animals, but it always constitutes a sort of ganglionic or sympathetic bridge, which, going from the lingual nerve to the chorda tympani, can physiologically connect the tongue, or rather the bucco-lingual mucous membrane, with the submaxillary gland. By means of this bridge formed by the submaxillary ganglion and the fibres emanating from it, reflex actions of the tongue upon the submaxillary gland may be produced without intervention of the brain. The tongue is connected with the submaxillary gland by two sorts of concentric nervous arches; the one, and the larger (viz., the lingual nerve and the chorda tympani), passing through the brain; and the other, and shorter one, passing through the submaxillary ganglion. Now, there appear to be two sorts of reflex influences destined to act upon the submaxillary gland, which correspond with the two nervous courses. The first which passes through the brain is conscious, and put in action especially by the gustatory function of the tongue; the second, which is unconscious, is transmitted by the submaxillary ganglion, and seems to be particularly excited by the conditions of dryness or humidity of the bucco-lingual mucous membrane. But the submaxillary ganglion has not only the power of propagating reflex actions, which may by its means arrive at the submaxillary gland, without passing through the brain; it also seems to possess a special influence upon the intermittence of the salivary secretion; for after the section of this ganglion the secretion of the gland becomes continuous, although it may still increase in intensity if excitants of taste are applied to the tongue. The submaxillary ganglion loses this property of being a centre of reflex actions for the submaxillary gland, some time after it has been separated from the brain; after which the gland, being thus entirely deprived of nervous influence, secretes permanently, instead of entering into a state of functional repose. This fact, which merits the special attention of physiologists, may go far to show that all our ideas concerning the way in which the nerves act upon the organs are erroneous. The nerves would no longer seem to be the excitors of action, but would rather seem to refrain it; and the organs, the functional power of which would be idio-organic, would appear to be able to manifest their action only if the nervous influence relaxed for a moment its regulating force.

ITALY.

Rome, August 1.

THE MINERAL WATERS OF CENTRAL ITALY.

The Italian Peninsula contains more than three hundred mineral springs, amongst which are represented the chief varieties of spas, as regards chemical composition and temperature. There are acidulous springs, chalybeates, waters containing chloride of sodium, iodine, salines, sulphur, and many other accessory ingredients. In fact, the whole materia medica of spas—if I may be allowed this expression—is to be met with in Italy; so that if suitable establishments existed at the watering-places, there would be no occasion to send patients from here to Vichy, Carlsbad, Wiesbaden, Gastein, etc.

Most of the Italian spas are not used at all, or only resorted to by the neighbouring population; many of them have never even been analysed, while a few others have an old and firmly established reputation The majority of these latter are thermal springs. I shall to-day merely give you a short account of such mineral waters of Central Italy as are at present used, leaving others unmentioned which from their inherent power may perhaps in future become of importance.

The geological condition of Central Italy accounts for the abundance of mineral springs there. Italy owes its existence to the elevation of the Apennine, a mountain chain of secondary formation and consisting of jurassic limestone, while the plains

at both sides of the Apennine are tertiary formations. In a westerly direction from the Apennine there is a second elevation, parallel with the former, running along the coast of Central Italy and marked by the Island of Elba, the Cape of Argentario, the Hills of Civita Vecchia and the Volscian Mountains. Between the two chains a continuous series of plutonic eruptions has taken place, the final links of this chain of volcanoes being Vesuvius and the Lipari Isles. This chain commences at Viterbo, runs in a straight line through the Roman Campagna, encloses the Latine Mountains, and finishes between the Volscian Mountains and the Abruzzi, at the boundary of the patrimony of St. Peter, near Caprano, where the last bands of Bourbonic guerillas are at the present moment maintaining a hopeless struggle against the Italian troops. These volcanoes date from two geological epochs. The more ancient were submarine, and their craters, which are even now-a-days in existence, and were only at a later period raised above the level of the sea, form the Lakes of Bolsena, Vico and Bracciano, and a host of smaller watersheds. Others which belong to a later period are atmospheric volcanoes, the most considerable amongst them being in the Albanian or Latine Mountains. Most of the craters of these latter have also been changed into lakes (viz., Lake of Neni and Albaneo), and delight the eye by the beautiful forms of the mountains surrounding them and the exuberant vegetation of the neighbourhood. This part of the country is richest in mineral waters, which no doubt owe their origin to volcanic processes. Although extinct at the surface, these are probably still active in the depth.

A thermal spring of great therapeutical value is that of Vicarello (Aquæ Apollinares). This rises in the Roman Campagna, on the right bank of the Tiber, at a distance of thirty-two Italian miglie from Rome, close to the shore of the Lake of Bracciano, which is a pre-historian crater, with a diameter of six miglie, and the shore of which is partly formed of volcanic tufa, partly of steep lava. The spring issues from a small accessory crater, a few hundred yards from the lake, in a valley enclosed by hills of lava. The road from Rome goes first through the wide plain of the Campagna, to the charming Lake of Bracciano, which is surrounded by fertile gardens, and then proceeds for eight miglie along the shores of this lake. The bathing establishment is close to the farm of Vicarello. It consists of one large building for baths and lodgings, which affords room for about a hundred visitors. It does not offer all the comforts to be found in the German baths, but is sufficient for moderate pretensions. The temperature of the spring is 113°, and the specific gravity of the water 0·0045. According to an analysis made by Professor Ratti, of Rome, it contains in twenty pounds:—

	Grains.
Chloride of sodium. . . .	3·26
Sulphate of soda	89·46
Carbonate of soda	11·76
Carbonate of lime	75·64
Carbonate of iron	3·34
Carbonate of magnesia . . .	9·52
Silica	13·60
Organic substances	0·42
Total . . .	207·00

or 10·3 grains of solid ingredients in sixteen ounces. The water as taken from the spring is slightly opalising, owing to minute bubbles of carbonic acid gas which gradually ascend to the surface, after which it appears quite colourless and bright, like pure spring-water. It is devoid of smell, and its taste is slightly alkaline. Professor Ratti describes the spring as "aqua acidulo salina," on account of the carbonic acid and carbonates contained in the water; but it resembles rather more the springs of Teplitz and Pfäffers, which belong to the indifferent thermals containing only a trifling amount of solid matter, and acting chiefly by their high temperature. The spring is surrounded by a reservoir with a diameter of three yards, and three yards high; above the level of the water in this reservoir boards are placed, and upon these wooden boxes, so that vapour baths may be taken there. The water is then led by means of leaden pipes to the baths, of which there are twelve single ones and two piscines, the latter for five or six persons each. The water is placed in the tubs in the evening in order that it may be sufficiently cool for use next morning. 120 ordinary baths and 40 vapour-baths may be given daily.

The physiological effects of this water, used externally and internally, are diaphoretic and diuretic. It seems that the waste of tissues generally is accelerated, especially in the mucous membranes and glandular organs, while, at the same time, the central nervous system is roused. Exact researches on the effects of this water upon the healthy system have, however, not yet been made, and I therefore proceed at once to state its therapeutical properties. The water acts chiefly upon swellings of different kinds, which occur in the glands, ligaments, and joints; it is beneficial in chronic metritis, and tumours of the liver and spleen, especially when due to ague. It is also useful in chronic diseases of the skin, especially in inveterate cases where there is much exudation and ulceration; in diseases of the mucous membranes, especially in chronic catarrh of the respiratory organs, intestines, and urogenital parts. Gravel and renal calculi are frequently discharged during the use of this water. In rheumatism, gout, and rheumatic gout its effects are also satisfactory. By its action on the central nervous system, palsies of different kind have been cured.

In conclusion, I may mention that the use of the thermal spring of Vicarello dates further back than the foundation of Rome; but it was only ten years ago that general attention has again been directed to it. The antique baths were probably demolished by the Saracens in the middle ages, and remained in oblivion until 1730, when the Jesuits took possession of them together with the farm of Vicarello, and founded a small establishment, but which was only in 1852 enlarged to its present size. The workmen then discovered the remains of the antique establishment, which consisted of an artificial vault in form of a grotto, beneath which two large tubs had been shaped for receiving the water. At the bottom of the spring there were found no less than 16,000 small pieces of copper uncoined, which had a weight of about 2000 lb.; 1300 cast coins; a number of regularly coined pieces of money, of the time of the Roman Republic and the Empire; besides vessels of silver which were inscribed to Apollo and the nymphs of the spring, and several marble tablets, in which all the stations of the journey from Cadiz to Rome were engraved, together with the number of miglie required for each day's journey. Now, we know that the ancients were in the habit of sacrificing to the gods of rivers and springs pieces of money, and vessels of bronze, silver and gold, which were thrown into the water. Uncoined pieces of copper of a certain weight were used as medium of exchange by the Etrurians before Rome had been built; and it may, therefore, be considered nearly certain that this spring had been used by 16,000 bathers A.U.C. The season lasts at present for the months of June, July, and August, when the stay in Vicarello is pleasant and healthy; but in September intermittent fever is apt to set in there.

GENERAL CORRESPONDENCE.

IDIOPATHIC TETANUS.

Letter from Mr. W. Hewitt.

[To the Editor of the Medical Times and Gazette.]

Sir,—About a fortnight ago I was requested to see William T. The messenger stated that he was suffering from violent convulsions, and that he was in a dangerous state. On my arrival, about half-past twelve a.m., I found the patient just recovering from a violent convulsive seizure. He was bathed in perspiration; his pulse exceeding rapid, and he looked exceedingly anxious, and more like a person just awaking from an attack of nightmare than anything else I can describe.

Before two or three minutes had elapsed after my arrival, he had another convulsion, he became quite stiff, the body was bent backwards with decided opisthotonos; there was no trismus of the jaw, but otherwise he presented all the characteristics of tetanus. There was little or no foaming at the mouth. This attack lasted about a minute. He attempted to speak, but could only make us understand something about "wind." I placed my hand on his abdomen, which was tympanitic. He immediately became quite rigid, and the whole body was slightly convulsed.

I had just gone down-stairs with the intention of leaving the house when I was recalled; on my arrival up-stairs I found the patient again convulsed, and in that convulsion he expired.

The previous history of the case was as follows: He was a

healthy young man, about 25 years of age, a game-keeper by occupation. He had retired to rest about 10 p.m., in his accustomed good health. With the exception of a little tea and bread he had had no food since 12 noon, when he eat very heartily of roast veal, but had complained of no pain or inconvenience after it.

Not feeling justified in giving a death certificate under the circumstances, I refused to do so. The Coroner immediately ordered a post-mortem examination to be made, which I made sixteen hours after death.

The lungs, heart, and all the viscera were quite healthy; the stomach was quite empty, slightly distended with gas, but the bowels were loaded, and the transverse colon much distended, otherwise no abnormal appearances presented themselves.

I also opened the head, but, with the exception of some congestion, which could easily be accounted for, everything was quite healthy.

I record this case as showing how cautious we should be in expressing any opinion that cases of this kind result from poisoning, although, as far as I remember, the case of Cook in the Palmer case was very similar. I am clearly of opinion that the case I have just briefly described was one of convulsions, brought on by loaded bowels and a distended colon, and I think that it presents many points for grave reflection.

Upton, Sept. 4. I am, &c. W. Hewitt.

THE THERAPEUTIC USE OF CARBAZOTIC ACID.

Letter from Mr. F. Crace Calvert.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to forward to you the following valuable communication, which I have received from my friend Mr. Aspland, of the Ashton Royal Infirmary. As I was the means of bringing the properties of carbazotic acid under that gentleman's notice, I feel specially interested in having the valuable results obtained by him brought before the Medical Profession, and I, therefore, hope that you will consider them sufficiently important for publication in your widely circulated Journal. I am, &c.

F. Crace Calvert.

Manchester Royal Institution, August 27.

Sir,—I beg to forward you a brief description of some of the cases in which I have found carbazotic acid useful. After two years' extensive use of the remedy in private practice, at the Ashton Infirmary, and at the Barrack Hospital, I can state with confidence that it is the most valuable of the new therapeutic agents which we possess. I am unable to decide which is the most powerful, and which acts most pleasantly, carbazotic acid or the carbazotate of ammonia. As a rule, under the influence of either, the skin becomes most easily tinged in the most robust subjects, and most in adults rather than in children; but in these cases the urine presents more decided and enduring evidence of the remedy.

Amongst 300 soldiers of the Norfolk Militia I had forty cases of tertian ague. Many of these men had suffered from former attacks, and had been treated with full doses of quinine. I treated them all with carbazotic acid, and with most satisfactory results. Not a few of them presented the worn appearance and sallow complexions which soldiers exhibit who have served in unhealthy foreign stations. I began with one grain three times a day, increasing it to four grains in each dose. Some were promptly relieved in a few hours, and before the skin became markedly tinged; in two of the most obstinate cases the treatment lasted nine weeks; during the greater part of the time they looked as if deeply jaundiced, the urine being of a deep orange colour, every now and then with a considerable addition of lithates. The case of one of these men was very interesting. He was much emaciated, suffered from constant thirst, bad appetite, dry skin and hair, and passed daily about eight pints of urine of specific gravity 1032. Its weight was due to the presence of sugar; in fact, he had well-marked symptoms of diabetes. From debility he was quite incapable of duty, and though the symptoms had lasted for months, had never been under treatment for diabetes. His peculiar symptoms declined during the second week of his treatment, and had entirely disappeared before he left the Hospital. I regret that he was not weighed, as he had gained many pounds in weight, and his appearance became plump and comfortable. His urine diminished in weight to 1018, and in quantity to less than three pints, without a trace of sugar. I saw this man about six months afterwards, and ascertained that he had suffered no relapse from either ague or diabetes.

A. B., aged 30, a billiard-marker, admitted into the Ashton Infirmary in a very emaciated, prostrate condition. He was perfectly blanched, and passed about a pint of blood daily with his water. He had severe pain in the right lumbar region, some cough, and dyspnœa. The right side of the chest was dull on percussion, and to the ear gave neither respiratory murmur nor broncophony. The whole of the right side of the abdomen was dull on percussion and bulging. For weeks he hung between life and death, but under the influence of large doses of acetate of lead the hæmorrhage ceased, and he recovered his strength sufficiently to leave the Infirmary. He returned again in a few weeks with a return of most of his old symptoms. In place of blood, however, he was passing at least a pint of dingy green pus. There was hectic fever and great anxiety of countenance. I at once put him on full doses of the acid. He took no other medicine, except an occasional aperient, and every bad symptom by degrees disappeared; his appetite returned, he ceased to suffer from pain or dyspnœa, the urine became natural, the bulging of the hypochondrium disappeared, and the natural vesicular murmur of the lung returned. He gained flesh and strength, and in less than three months was able to resume his occupation. He continues well now, after a lapse of four months.

J. M., aged 3 years, brought to the Infirmary with well-marked marasmus of twelve months' standing. The mother stated that the Doctor in attendance had declined further treatment, considering the case hopeless; and, indeed, it seemed so when one looked at the wretched, shrivelled, monkey-like aspect, the enormously tumid belly, and skin-and-bone limbs. The wailing was incessant, and green watery motions were constant. I ordered one-twelfth of a grain of the carbazotate of ammonia three times a day. The first dose produced violent vomiting, straining of the bowel, and great pain, so that death appeared imminent; the next day the child appeared a little better, and a couple of drops instead of a teaspoonful of the medicine were given. Even this produced some distress, and the dose was reduced to one drop. A very obvious improvement now began. The medicine has been continued in gradually increasing doses, a quarter of a teaspoonful being now taken; and at the present time (four months from the first dose) no one would recognise in the plumpish, comfortable-looking child, with a belly of the natural size, the wasted creature we first saw. There is no purging, and the appetite, which was voracious, is now natural. The little thing is sleeping instead of crying all night.

I have also under treatment a rickety child of about the same age, which is steadily improving.

A lady, aged 30, for some weeks suffering from dyspeptic symptoms, passing sleepless nights, and troubled with most uncomfortable sensations, at times leading to great depression of spirits, and attended with a dread of suicide, was treated with various remedies without any beneficial results until grain doses of the acid were tried. In less than forty-eight hours she lost the sensation of gastric oppression, was able to sleep through the night, and recovered her cheerfulness.

In addition to the above cases, I may add that I have used it as a tonic in cases where quinine is usually given, after accidents, and in cases of debility not apparently due to any specific cause, and have been well satisfied with the results.

I have generally found patients willing to submit to the change of complexion in consideration of the advantages they derived. In the best dyed cases the skin clears in two or three weeks after the discontinuance of the remedy. I have avoided minute details, but can give them to you if you desire them. I am, &c.

Dukinfield, August 22. Alfred Aspland.

C. Calvert, Esq.

A young man named Flasschoen very narrowly escaped being poisoned last week at Brussels from drinking the first glass of beer drawn from the counter machine at a public-house. It is usual to throw away the beer which has remained in the metal pipes all night, but this precaution had been neglected in the present instance. The liquor was so strongly impregnated with the metallic poison that the young man's recovery was considered hopeless for several hours.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, September 4, 1862:—

Walter Thomas Marshall, Birmingham; Richard Dennis Hacon, Bedford.

APPOINTMENTS.

ATTFIELD.—John Attfield, F.C.S., has been appointed Director and Demonstrator of Chemistry and Pharmacy at the Pharmaceutical Society of Great Britain, Bloomsbury-square.

BELCHER.—Henry Belcher, M.D. Erlangen (exam.), L.R.C.P. Edin., M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Gamlingay District of the Caxton and Arrington Union, Cambridgeshire, *vice* Ezra Harle, M.R.C.S. Eng., L.S.A. Lond., resigned.

BULLMORE.—Mr. Charles F. Bullmore, of St. Mary's Hospital, has been appointed Apothecary to the Male Lock Hospital, Dean-street, Soho.

CHEATLE.—Thomas Henry Cheatle, M.R.C.S. Eng. and L.M., L.S.A. Lond, has been elected Medical Officer and Public Vaccinator for the Fourth District of the Chipping Norton Union, Oxfordshire, *vice* Thomas Cheatle, L.S.A. Lond., deceased.

COOGAN.—John Coogan, M.R.C.S. Eng., Surgeon R.N. (seniority April 16, 1862), has been appointed to the *Curlew*.

EVANS.—John Henry Evans, M.R.C.S. Eng., L.S.A. Lond., has been elected Junior House-Surgeon and Apothecary to the Southern Hospital, Liverpool.

EVANS.—Richard Evans, Assistant-Surgeon R.N. (seniority December 20, 1851), has been appointed to the *Victory* (additional).

FALCONER.—Robert Falconer, L.R.C.S. Edin., and William Falconer, L.F.P.S. Glasg., have been appointed joint Surgeons to the Union Poorhouse, Burgh, Paisley.

GAIRDNER.—Dr. Gairdner, of Edinburgh, has been appointed Professor of the Practice of Physic in the University of Glasgow, *vice* John Macfarlane, M.D. Univ. Glasg., F.F.P.S. Glasgow, resigned, on account of declining health.

GODDARD.—Eugene Goddard, M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon and Assistant-Secretary to the West Herts Infirmary, Hemel Hempstead, *vice* Thomas William Colbeck, M.R.C.S. Eng., L.S.A. Lond., resigned.

HUGHES.—David Watkin Hughes, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Third District of the Forehoe Incorporation, Norfolk, *vice* Lewis Lewis, M.R.C.S. Eng., L.S.A. Lond., deceased.

KIRBY.—Edmund Adolphus Kirby, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., has been appointed Physician to the City Dispensary, Queen-street, Cheapside, *vice* William Abbotts Smith, M.D. Univ. St. And., M.R.C.P. Lond. (exam.), M.R.C.S. Eng., and L.M., L.S.A. Lond., resigned.

KNAGGS.—Samuel Knaggs, M.R.C.S. Eng, L.S.A. Lond., has been appointed Medical Officer for the Huddersfield South District of the Huddersfield Union, Yorkshire.

MAKENS.—John Makens, M.R.C.S. Eng., L.S.A. Lond., Undergraduate in Med. and Science Univ. Lond., has been appointed Resident Medical Officer to the Public Dispensary, Carey-street, Lincoln's-inn, *vice* William Payne, M.R.C.S. Eng., L.S.A. Lond., resigned.

MARIGOLD.—Mr. William Henry Marigold, late Assistant-Dispenser to the Birmingham General Dispensary, has been appointed Dispenser to the Birmingham and Midland Eye Hospital.

PARK.—William Park, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the Royal Infirmary for Children and Women, Waterloo-road, *vice* James Henry Stedman, M.R.C.S. Eng., L.S.A. Lond., resigned.

SHAW.—Edmund Shaw, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the Union Workhouse at Redhill, Hendon Union, Middlesex, and Medical Officer and Public Vaccinator for the Edgware District of the same Union, *vice* Charles Robinson, L.R.C.P. Edin. (exam.), F.R.C.S. Eng., L.S.A. Lond., resigned.

SMITH.—Dr. William Smith, Surgeon R.N. (seniority January 26, 1855), has been appointed Surgeon Superintendent to the *Merchantman* convict ship.

STANFORD.—E. C. C. Stanford, F.C.S., has been appointed Assistant-Demonstrator of Chemistry and Pharmacy at the Pharmaceutical Society of Great Britain.

WADE.—Dr. Wade has been appointed Medical Officer for the townships of Sandal, Walton, Warmfield, and Sharlston, in the Wakefield Union, Yorkshire.

WARBURTON.—Alfred Warburton, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Second Division, Municipal, of the West Derby Union, Lancashire, *vice* Matthew Lyneh, L.R.C.S. Irel., L.S.A. Lond., resigned from ill health.

WILLIAMS.—Mr. John Wilkins Williams, of St. George's Hospital, has been appointed House-Surgeon to the Male Lock Hospital, Dean-street, Soho.

WOLLASTON.—Thomas Gulston Wollaston, M.D., M.R.C.S. Eng., L.S.A. Lond., has been elected Senior House-Surgeon to the Southern Hospital, Liverpool, *vice* Anthony George Hayden Starke, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

YELD.—Henry John Yeld, M.R.C.S. Eng., L.S.A. Lond., has been elected Surgeon to the Sunderland Eye Infirmary, *vice* Reginald Orton, M.R.C.S. Eng., L.S.A., deceased.

DEATHS.

ATLEY.—September 1, at Cramer-cottage, Gateshead, Durham, Thomas Atley, aged 80. He served in the North Sea Fleet in the year 1800, under Commodore Beresford, in the *Leadon* frigate, sixty-four guns, and was afterwards, for many years, an officer in the Inland Revenue service.

BROWNELL.—May 20, while accompanying Dr. Petherick's expedition in search of the source of the River Nile, as Botanist, Dr. Brownell, of Hartford, Connecticut, U. S. of America.

CLARKE.—September 6, at Gourock, Renfrewshire, Samuel Clarke, L.R.C.S. Edin., F.F.P.S. Glasg., aged 72.

HORSMAN.—August 15, of scarlatina, Mr. James Horsman, of the London Hospital, Student of Medicine, aged 19.

SAWYER.—August 21, at Hampstead, George Sawyer, late of Guildford-street, Russell-square, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., aged 63.

STEVENS.—September 3, at Ramsgate, William Vitty Stevens, of Milton-house, Maude-green, West Brompton, M.R.C.S.

STUART.—August 29, James Stuart, of Dunse, Berwickshire, L.R.C.S. Edin., Surgeon R.N. (seniority December 19, 1811), on the retired list.

LONDON GAZETTE.

September 5.

12TH FOOT.—Staff Surgeon Alexander Fisher Bartley to be Surgeon, *vice* Surgeon-Major Dick, appointed to the Staff; dated September 5, 1862.

28TH FOOT.—Staff Assistant-Surgeon William James Wilson, M.D., to be Assistant-Surgeon, *vice* Brice, deceased; dated September 5, 1862.

MEDICAL DEPARTMENT.—Surgeon-Major William Dick, M.D., from 12th Foot, to be Staff Surgeon-Major, *vice* Surgeon Bartley, appointed to the 12th Foot; dated September 5, 1862.

Staff Assistant-Surgeon Philip Frank, M.D., has been permitted to resign his commission; dated September 5, 1862.

1ST NORFOLK RIFLE VOLUNTEER CORPS.—William Hankes Day to be Assistant-Surgeon; dated September 1, 1862.

Her Majesty has been graciously pleased to accept the resignation of the commission held by Assistant-Surgeon Jehoida Brewer in the 3rd Monmouthshire Rifle Volunteer Corps, from June 17, 1862.

A YOUNG woman, living near Carmarthen, has been attacked by a rook, which pecked at her face with such force as to destroy one of her eyes.

IT is said that the barracks at Sheerness for married artillery soldiers are an expensive failure. Each family will have but one room, 17 feet by 14 feet, and of the useless height of 15 feet.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—LIST OF THE COLLEGE OFFICERS.—*President:* Dr. Thomas Watson. *Censors:* Dr. Budd; Dr. A. Farre; Dr. Birkett; and Dr. Monro. *Treasurer:* Dr. Alderson. *Registrar:* Dr. Pitman. *Harveian Librarian:* Dr. W. Munk. *Bedel:* Mr. W. Copney.

A GIRL of 9, inmate of a charitable school in Mayfair, died suddenly on her return from a country excursion, which constituted the annual treat of the scholars. On a post-mortem examination it was found that death had occurred from perforation of the stomach; an ulcer of long-standing had given way under the distension caused by the nuts and apples which the poor child managed to eat.

MUNIFICENCE.—It affords us great pleasure to announce that under the will of the late Mr. John Henry Parker, of Lincoln's-inn-fields, and of Binfield-grove, Bracknell, Berkshire, the following charitable bequests have been left:—To King's College Hospital, £500; the Royal Berkshire Hospital, £500; and to the St. John's Training Institution for Nurses, £500.

WE observe that the "Société Universelle d'Ophthalmologie," of which Dr. Sichel is the President, will hold its next Session in Paris on the 30th of the present month; and on the 1st, 2nd, and 3rd of October; in the Salle du Grand Orient de France, 16 rue Cadet. Cards of admission to the different sittings will be delivered on September 29, from noon till four o'clock p.m.; and on the first day of the Session, from eight till ten o'clock a.m., at the house of the Secretary, Dr. Weeker, 3, Faubourg St. Honoré.

THE DECIMAL SYSTEM OF WEIGHTS AND MEASURES.—The Report of the Select Committee appointed to consider the practicability of adopting a simple and uniform system of weights and measures has just been published. The following recommendations are laid before the House. We suppose that they mean the French decimal system, besides the gramme, when they use the curious words "metric system." We hope to be saved from the nuisance of a new grain:—"1. That the use of the metric system be rendered legal. No compulsory measures should be resorted to until they are sanctioned by the general conviction of the public. 2. That a Department of Weights and Measures be established in connexion with the Board of Trade. It would thus become subordinate to the Government, and responsible to Parliament. To it should be entrusted the conservation and verification of the standards, the superintendence of inspectors, and the general duties incident to such a department. It

should also take such measures as may from time to time promote the use and extend the knowledge of the metric system in the departments of Government and among the people. 3. The Government should sanction the use of the metric system (together with our present one) in the levying of the Customs' duties; thus familiarising it among our merchants and manufacturers, and giving facilities to foreign traders in their dealings with this country. Its use, combined with that of our own system, in Government contracts has also been suggested. 4. The metric system should form one of the subjects of examination in the competitive examinations of the Civil Service. 5. The gramme should be used as a weight for foreign letters and books at the Post-office. 6. The Committee of Council on Education should require the metric system to be taught (as might easily be done by means of tables and diagrams) in all schools receiving grants of public money. 7. In the public statistics of the country quantities should be expressed in terms of the metric system in juxtaposition with those of our own, as suggested by the International Statistical Congress. 8. In private Bills before Parliament the use of the metric system should be allowed. 9. The only weights and measures in use should be the metric and imperial, until the metric has been generally adopted."

A Medical Botanist.—An inquest has lately been held at Lincoln on the body of a young man named George Adams. The deceased had been attended during the greater part of his illness by Isaac Olivant Wilkinson, a man calling himself a Medical Botanist. A day or two before the deceased's death his friends dismissed the quack and called in Dr. Taplin, who found the patient comatose and dying of typhus. The treatment to which he had been subjected, consisting of hot baths and other lowering measures, had tended, Dr. Taplin believed, to hasten death. With the utmost effrontery Wilkinson volunteered a statement at the inquest. In the course of his examination by the Coroner he said that he was accustomed to practise as a Medical man, that he had obtained his knowledge of Medicine at a College kept by a Dr. Beech, who was a Physician. That this College was "a sort of School of Medicine," and there was a museum connected with it. That he did not know that he was violating the law, and that he could get a diploma from America, only that it would be of no use in England, and therefore he did not desire it. The jury returned the following verdict: "That the death of the deceased was from typhus fever; that at the commencement of the attack the deceased was foolish enough to place himself under the care of a Medical Botanist, named Isaac Olivant Wilkinson, who being grossly ignorant of the disease under which the deceased laboured, treated him in a manner diametrically opposed to the treatment which any one skilled in Medicine would have adopted, and which treatment by the said Wilkinson, if not directly instrumental to the death of the deceased, tended to the weakening of the effect of the proper medicines administered, by which the life of the deceased might have been preserved."

Lord Derby has done immense service by his speech at Preston on the value of sewage. "His late lamented Royal Highness the Prince Consort," he said, "had applied his eminently practical mind to this subject, and had made various experiments, the result of one of which he had had the opportunity of seeing and of noticing the important effects produced upon the adjoining herbage at Osborne, in the Isle of Wight. A similar experiment has been made at Wellington College. The population of Wellington College is about 300 souls altogether, and there is attached to it a very large laundry for doing the washing of the whole establishment; it is important to have for these purposes a very large supply of water, and for the production of vegetables, and for the cultivation of flowers also, there is nothing more stimulant than the application of soapsuds and refuse from the wash-houses. Now, the novelty of the Wellington College experiment is this: as we had the usual cesspools—that I consider a disadvantage under which we laboured in the first instance—all we had to depend upon was the overflow of the liquid manure through pipes. This, following the plan of the Prince Consort, we conducted a short distance from the College into a tank for the purpose of filtering. But it had been found in all former experiments of filtering that if you introduced the liquid at the top of the filter bed, whatever there was of solid content in it formed, in a short period, a cake at the top, and prevented the penetration of the water; and the novelty introduced by the Prince Consort was this, that the water introduced came in, not from the top, but from under the bottom of the filtering bed, and so by their own force raising to their own level the watery parts, forced their way through the filtering bed, leaving the solid materials at the bottom. The filtering bed consisted of three separate wooden trays, each covered with three or four inches deep of burnt bog-soil. They were separate from each other; the water gradually forced its way from the lowest to the upper one; it then fell over the vacant space, and dropped again to the bottom of the second filter bed, through which it rose again in the same way, obtaining a similar amount of filtration. Each of these separate trays was capable, as they absorbed the manure, of being withdrawn and renewed, and fresh trays substituted for them, to collect a fresh amount of sewage. The original expense of land, tank, and pipes leading from the tank, was £113. In the course of the nine months during which the College is open, we have collected from the bog soil which was placed upon the premises an amount equal to 96 tons of the best manure, equal, at a value of 8s. a ton, to £38 a year, or one-third of the whole expense, in the first year, of the tank which we established. Our object was to obtain the liquid manure for the purposes of irrigation. The land is the very worst description of Bagshot Heath; a thin layer of worthless sand above a mass of gravel, which is utterly impenetrable to water, a disagreeable soil, varied by an occasional swamp, with some bog soil in it. It had never produced a blade of grass before we took it in hand; and from this small tank we made the experiment last year. We have thirty or forty poles under grass, and from this we obtained in one year eight cuttings of the finest grass, beginning on April 7 to cut our first crop, cutting it every three weeks for the next half-year, and yet half of the crop which was left was at least one foot in height. In addition to this we supplied by our own means from this soil—we supplied the College with potatoes, and some of the finest vegetables I ever saw in my life. And I ought to say that the annual expenditure attending the burning of the bog soil, and the cleaning out of the tanks, amounts to about £15; in return for which we are able to irrigate nine acres of land, with the success we have reached in the course of the present year, and with the result I have mentioned to you in the shape of produce raised upon soil which never yielded anything before, except stunted heath, in the memory of man. And so rich, after this double irrigation, is the sewage we obtain, that the tenant of an adjoining farm takes from us the waste which leaves our land and flows upon his, and applies it for the purposes of irrigation, and the owner of that farm in return allows us the free use of a valuable spring of water." "In order to show that I am not talking for the mere purpose of talking," continues Lord Derby, "I am ready to give a premium of 100*l.* to the first person, or to the first company, which shall have successfully—by which I mean also profitably to themselves, because otherwise it could not serve for an example—utilise, to use the common phrase, the entire liquid sewage of a district comprising not less than 4000 inhabitants."

Ovine Variola.—Professor Simonds has been inspecting the flocks in the neighbourhood of Salisbury; he finds them at present free from disease. He has also attended meetings of agriculturists at Warminster and Salisbury, for the purpose of giving information on the nature and prevention of the ovine small-pox. Mr. John Gamgee, also, of the New Edinburgh Veterinary College, has gone to Devizes with the view of obtaining an inspection of the different flocks supposed to be diseased, and of reporting the result of his inspection to Government. In a letter to the *Times* Mr. Gamgee asserts that he has cleared up the mystery of the origin of the disease in Wiltshire, and, at the same time, intimates his disapproval of the practice of inoculation. He writes:—"It is so very important that the public should be correctly informed on this subject that I venture to add that the mystery attaching to the origin of the small-pox has vanished since I visited the Downs last week, and carefully ascertained the nature of the free communication between different parts of the country through Wiltshire. There is a drift along the celebrated Wansdyke which has been repeatedly the cause of the spread of contagious diseases from affected cattle and sheep traversing the Downs in order to avoid the payment of tolls on the high road. The public may rest assured that there is no ground at all for the belief that small-pox could break out in Wiltshire spontaneously. The disease is spreading, but only in the lines of communication

between distant and the diseased flocks, and a few more days will indicate that the plague is not stayed. I should not sound this note of alarm if I did not think that the Wiltshire farmers must act in combination to check the disease, and that the practice of inoculation is extending widely the area over which the small-pox virus is emanating" It is stated that the disease has unexpectedly appeared at Aldbourne, on the borders of Wilts and Berks. On September 9 it was announced at a meeting of the Veterinary Committee of the Royal Agricultural Society of England, that the Government had appointed Professor Simonds a special Commissioner to inquire into the origin and extent of this disease, with a view to an immediate issuing of an order in Council to check its further progress. The following is the substance of the order which appeared in the *London Gazette* extraordinary, September 10:—"Whereas a contagious or infectious disorder, known or described as the sheep-pox, or variola ovina, now prevails among the sheep in some parts of the United Kingdom, and it is expedient to take measures for preventing such disorder from spreading. Now, therefore, the Lords of Her Majesty's Privy Council do hereby, in pursuance and exercise of the powers so vested in them as aforesaid, make and ordain the several orders and regulations following—that is to say:—1. It shall not be lawful for any person to remove any sheep or lambs to or from any or either of the parishes and tythings following, all lying and being in the county of Wilts, and near to the town of Devizes—that is to say, the parishes or tythings of Horton, Bishop's Cannings, Allcannings, Etchilhampton, and Allington, or to drive or conduct any sheep or lambs through or by way of such parishes or tythings, or any or either of them, unless the person so removing, driving, or conducting such sheep or lambs shall first have obtained a certificate, in writing, signed by some person who may have been authorised by two or more justices of the said county of Wilts to seize sheep or lambs infected with or labouring under the said disorders, under the 1st section of the said Act, that such removal, driving, or conducting may take place without danger of spreading the said disease. 2. All sheep and lambs dying in any of the stages of the said disease, whensoever such death or deaths shall or may occur, shall forthwith be buried by the person or persons in whose possession such sheep or lambs may be at the time of death, with their skins on, in pits of not less than five feet in depth, and the carcases so buried shall be covered with quicklime. 3. All sheds and places whatsoever, and all railway trucks and other vehicles which may or shall have been used or occupied by sheep or lambs affected by the said disease, shall forthwith, after having been so used, be thoroughly cleansed with water, and immediately afterwards purified with chloride of lime by the person or persons in possession of such sheds, places, trucks, and vehicles respectively. 4. Every person in possession of any sheep or lambs in or among which the said disease shall manifest itself shall forthwith give notice, in writing, of the fact to the Chief Constable, or Superintendent of Police, of the county or borough in which such sheep or lambs may be. 5. And it is further ordered that this order shall continue in force for three calendar months from and after the date hereof.—Arthur Helps."

THE LATE BALLOON ASCENT.—Mr. Glaisher, in a letter to the *Times* of Wednesday, has given an account of the venturous ascent lately made by himself and Mr. Coxwell. The following extracts from his letter are of great physiological interest:—"On the earth at 1h. 3m. the temperature of the air was 59 deg.; at 1h. 13m., at the height of a mile, it was 39 deg.; and shortly afterwards we entered a cloud, which was about 1100 feet in thickness, in which the temperature of the air fell to 36½ deg., and the wet-bulb thermometer read the same, showing the air here was saturated with moisture. On emerging from the cloud at 1h. 17m. we came into a flood of light, with a beautiful blue sky without a cloud above us, and a magnificent sea of cloud below, its surface being varied with endless hills, hillocks, mountain chains, and many snow-white masses rising from it. When we attained the height of two miles, at 1h. 21m., the temperature had fallen to the freezing point; we were three miles high at 1h. 28m., with a temperature of 18 deg.; at 1h. 39m. we had reached four miles, and the temperature was 8 deg.; in ten minutes more we had reached the fifth mile, and the temperature of the air had passed below zero, and there read minus 2 deg.; and at this point no dew was observed on Regnault's hygrometer when cooled down to minus 30 deg. Up to this time I had taken the observations with comfort. I had experienced no difficulty in breathing, while Mr. Coxwell, in consequence of the necessary exertion he had to make, had breathed with difficulty for some time. At 1h. 51m. we had reached a height of about 5¼ miles. I read the dry bulb as minus five degrees; in endeavouring to read the wet bulb I could not see the column of mercury. I rubbed my eyes, then took a lens and also failed. I then tried to read the other instruments, and found I could not do so, nor could I see the hands of the watch. I asked Mr. Coxwell to help me, and he said he must go into the ring, and he would when he came down. I endeavoured to reach some brandy which was lying on the table at about the distance of a foot from my hand, and found myself unable to do so. My sight became more dim; I looked at the barometer and saw it between 10 and 11 inches, and tried to record it, but I was unable to write. I then saw it at 10 inches, still decreasing fast, and just noted it in my book; its true reading, therefore, was at this time about 9¾ inches, implying a height of about 5¾ miles, as a change of an inch in the reading of the barometer at this elevation takes place on a change of height of about 2500 feet; I felt I was losing all power, and endeavoured to rouse myself by struggling and shaking. I attempted to speak, and found I had lost the power. I attempted to look at the barometer again; my head fell on one side. I struggled and got it right, and it fell on the other, and finally fell backwards. My arm, which had been resting on the table, fell down by my side. I saw Mr. Coxwell dimly in the ring. It became more misty, and finally dark, and I sank unconsciously as in sleep; this must have been about 1h. 54m. I then heard Mr. Coxwell say, 'What is the temperature? Take an observation; now try.' But I could neither see, move nor speak. I then heard him speak more emphatically, 'Take an observation; now do try.' I shortly afterwards opened my eyes, saw the instruments and Mr. Coxwell very dimly, and soon saw clearly and said to Mr. Coxwell, 'I have been insensible;' and he replied 'You have, and I nearly.' I recovered quickly, and Mr. Coxwell said, 'I have lost the use of my hands; give me some brandy to bathe them.' His hands were nearly black. I saw the temperature was still below zero, and the barometer reading 11 inches, but increasing quickly. I resumed my observations at 2h. 7m., recording the barometer reading 11·53 inches, and the temperature minus 2. I then found that the water in the vessel supplying the wet bulb thermometer, which I had by frequent disturbances kept from freezing, was one solid mass of ice. Mr. Coxwell then told me that while in the ring he felt it piercingly cold, that hoar frost was all round the neck of the balloon, and on attempting to leave the ring he found his hands frozen and he got down how he could; that he found me motionless with a quiet and placid expression on the countenance. He spoke to me without eliciting a reply, and found I was insensible. He then said he felt insensibility was coming over himself, that he became anxious to open the valve, that his hands failed him, and that he seized the line between his teeth and pulled the valve open until the balloon took a turn downwards. This act is quite characteristic of Mr. Coxwell. I have never yet seen him without a ready means of meeting every difficulty as it has arisen, with a cool self-possession that has always left my mind perfectly easy and given to me every confidence in his judgment in the management of so large a balloon. On descending, when the temperature rose to 17 deg., it was remarked as warm, and at 24 deg. it was noted as very warm. The temperature then gradually increased to 57½ deg. on reaching the earth. It was remarked that the sand was quite warm to the hand, and steam issued from it when it was discharged. Six pigeons were taken up. One was thrown out at the height of three miles; it extended its wings, and dropped as a piece of paper. A second, at four miles, flew vigorously round and round, apparently taking a great dip each time. A third was thrown out between four and five miles, and it fell downwards. A fourth was thrown out at four miles when we were descending; it flew in a circle, and shortly after alighted on the top of the balloon. The two remaining pigeons were brought down to the ground; one was found to be dead, and the other (a carrier) had attached to its neck a note. It would not, however, leave, and when jerked off the finger returned to the hand. After a quarter of an hour it began to peck a piece of riband encircling its neck, and I then jerked it off my finger, and it flew round two or three times with vigour, and finally towards Wolverhampton. Not one, however, had returned there when I left on the afternoon

of the 6th. It would seem from this ascent that five miles from the earth is very nearly the limit of human existence. It is possible, as the effect of each high ascent upon myself has been different, that on another occasion I might be able to go higher, and it is possible that some persons may be able to exist with less air, and bear a greater degree of cold; but still I think that prudence would say to all, whenever the barometer reading falls as low as eleven inches, open the valve at once; the increased information to be obtained is not commensurate with the increased risk."

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 6, 1862.

BIRTHS.

Births of Boys, 922; Girls, 905; Total, 1827.
Average of 10 corresponding weeks, 1852-61, 1625·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	635	544	1179
Average of the ten years 1852-61	639·7	636·5	1276·2
Average corrected to increased population..	..	..	1160
Deaths of people above 90	..	1	1
Deaths in 15 General Hospitals	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	3	11	2	3	3	8
North ..	618,210	1	3	19	5	4	15	11
Central ..	378,058	1	9	9	1	6	6	7
East	571,158	2	36	16	2	5	15	26
South ..	773,175	2	7	23	1	5	14	31
Total.. ..	2,803,989	6	58	77	10	23	54	83

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Corrigendum.—Bristol Medical School.—Our Bristol correspondent requests our readers to substitute the following statement of the fees for Lectures required by the College and Hall at the Bristol Schools for that given in his letter which appeared in our Number of August 23. Fees for Lectures and Hospital Practice at

	Infirmary.	General Hospital.
College of Surgeons	£92 9 0	£76 4 0
Society of Apothecaries	82 10 0	72 10 0

Errata.—In our last Number, page 258, *for* "*levée,*" *read* "*lever;*" *for* "Ménilmentant," *read* "Ménilmontaut;" *for* "Tartuffe," *read* "Tartufe."

A Query.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Please to inform me the position an M.D. of Philadelphia is in with respect to registration and the Universities of this country. Whether it entitles the possessor to registration and practice? or if not, what it will avail him *ad eundem* with the licensing bodies and curriculum of study in England and Scotland? I am, &c. X. Y. Z.

Halifax, September 7.

An M.D. of Philadelphia had better pass the College of Physicians.]

Professional Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—That Mr. Edmunds lost no time and spared little pains in getting up his Spitalfields case is evident from the letters that have appeared in your Journal; notwithstanding which, I endorse the statements contained in my previous communication, and deny Mr. Edmunds' claim to special success in securing union of the cancerous femur; none such existed, nor, according to my experience, is there much chance of its ever taking place. With respect to the ethical question, such explanation was offered to Mr. Edmunds in the presence of Mr. Gay, at the consultation on the Wednesday, that ought to have satisfied any gentleman, and even induced Mr. Edmunds to have corrected the false statements of his first letter prior to its publication in your pages, ample time intervening.

I should not have alluded to the Hunterian question had not Mr. E. given this as his reason why he should do all he could to retaliate not only on me, but on every member of that Council. I am, &c.

September 9, 1862. Thos. B. Crosby, F.R.C.S.

Fees for Vaccination under the Poor-law Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any of your numerous readers who may hold appointments under the Poor-law Act have the goodness to inform me whether or not the Medical officer of a Union Workhouse is entitled to make a separate charge for the vaccination of the children in it? The clerk of the Union to which I have been recently appointed informs me that the vaccination of the children is included in the duties of the Medical officer for the salary allowed. Is it so? To put the question in another form, Have the guardians power to include vaccination in their salary in the case of the Workhouse, when the Vaccination Act allows a separate charge to be made for those vaccinated out of it? I am, &c.

Tadcaster, September 8. A Subscriber.

Poisoning by Laburnum.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I send you a short note of a case that occurred to me this week: Two young gentlemen, aged about twelve and eleven respectively, were in the full enjoyment of health on the day of September 3, and returned home late in the evening from an excursion. One of them was taken seriously ill about 10 p.m. I found him vomiting, and he had been constantly purged; his pulse was alarmingly weak and frequent, skin covered with clammy perspiration, and every now and then severe rigors shook his frame; muscular twitchings were observable about the face and neck, and great epigastric pain was well marked; the pupils were dilated, but no headache was present. It appeared that the second youth was the cause of the mishap, having made a small cake and seasoned it with laburnum seeds, and, as he was only sick to a slight degree, I presume his share of the repast was only moderate. The time between the use of the cake and the supervention of the symptoms was between thirty and forty-five minutes; a good many seeds were vomited, and with the prime actor the after vomiting was very severe, induced by emetic, and it is to be hoped that his conscience was equally a sufferer with his stomach. The boy aged twelve that was so bad was remarkably sleepy and very cold. He was well covered up with blankets, had a little weak brandy and water when the stomach was quiet, and a sinapism at the seat of pain. He slept well, and the next morning found him convalescent, and his co-mate a sadder but wiser boy. I am, &c.

Henry Ussher, M.B., Surgeon.

7, Watling-street, Canterbury, September 6.

P.S.—I may also mention that the younger is of French family, and no doubt imported the trick. I have been in the habit of keeping the following mixture always at hand, and it is a very serviceable emetic. I had it from a worthy Dublin Professor:—℞ Pulv. ipecacuanhæ 3j., aceti 3j., zinci sulphatis gr. xvj. M. Dose, one teaspoonful, which will generally be found sufficient.

A Plea for a Therapeutical Society.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your last Number you review a work the purport of which it appears is to prove the superiority of carbonate of ammonia in the treatment of scarlet fever and the injurious effects of acid drinks. It is remarkable that only an hour or two before perusing your Journal I witnessed Mr. Stocker at Guy's Hospital order julep acid. hydrochloric for a case of scarlatina (the usual remedy I should state), and instruct the nurse to let the patient drink plentifully of it. The remark, therefore, which I made to myself on reading your review was that the movement in respect to a Therapeutical Society is not commenced too soon, for in so common a disease as scarlatina a little careful observation could readily decide whether either of the above-named remedies were of any value, or whether, indeed, the disease does not get well in spite of them. It were well, I think, to commence observations on such simpler forms of disease, and then we should not be scandalized by other facts of a like kind, as for example, continued fever being treated by alkaline salines at the above-named Hospital, whilst at another Institution a Professor instructs his students that a liberal potation of acids is the best treatment. In this instance, also, I think the Society would not be long in coming to the same conclusion as in the former.

It is satisfactory to know that the present movement has been inaugurated by a gentleman distinguished as a pathologist, and as one who has taken the trouble to investigate the natural history of disease; for without these qualifications it is absurd to commence any observations upon the effects of remedies. Thus it is that our ponderous volumes on Materia Medica contain almost everything but what is really essential to the student—being made up of chemistry, botany, zoology, adulteration of drugs, and containing a very short account of the action or effects of remedies which has any reliable basis. It were well that no one should undertake the office of Professor of Therapeutics until he had previously acquired a thorough knowledge of disease. A great improvement has already taken place in this respect, but the importance of it appears to be not yet seen in its full light. I am, &c.

September 8. S. W.

The Photophobia of Strumous Ophthalmia.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A short time since, I read in your Journal a paper, by a member of the Moorfields Medical establishment, "On the Photophobia of Strumous Ophthalmia in Children." The facts assumed in this paper are quite erroneous, and the belief in them calculated to prevent the application of suitable remedies, and also to leave the anxious friends of the sufferers, as well as the Surgeon, in suspense and uncertainty as to the amount of danger existing. The official position of the writer makes his communication likely to be the more mischievous, by Surgeons in general practice attaching weight with apparent reason to the dogmata of a specialist connected with the largest institution of its kind in the world. The conclusion which I pronounce unhesitatingly to be incorrect is, that it is impossible to examine the class of diseased eyes mentioned without not merely rough digital manipulation, but without the use of the speculum to separate the lids, and still worse, the forceps to pull down the *bulbus*,—all of which is perfectly incorrect. For a number of years, many times in a week, and often many times in a day, I open, examine, and make medicinal applications to these cases of scrofulous ophthalmia, without ever failing by simple manipulation, without anything to be called violence, and requiring no aid from speculum or forceps,—which, indeed, I should never think of using on such occasions. The secret, so far as it may be one, is firmness and resolution, the keeping of the tarsus flat upon the *bulbus*, and acting from the edge with the extremity of the forefinger or the side of the nail of the thumb, thus preventing the eversion of the mucous membrane, and then steadily holding the lids thus apart; the globe which was turned upwards placing the cornea out of sight, will in the space of about half a minute, on an average, settle itself into its natural position, the cornea being central and fixed in some instances perhaps two minutes; continued steady separation of the lids is required before the cornea comes down. This manœuvre I learned a good many years since by seeing it practised by Dr. Mackenzie during a visit I made to his clinique, before which time I, as well as my then colleague, the late Mr. Gregory, who enjoyed a high reputation as an oculist here, had been in the habit of telling the patient's friends that it was impossible to see the eyes during the stage of high irritation; but on my showing him (Mr. Gregory) the plan, he adopted it, and continued to use it during his life, and was so pleased with the results, both as to diagnosis and therapeutics, that he often facetiously remarked

that the benefit *we* had derived from this one piece of information was worth all the money *I* had expended in my journey. The mischievous character of the error, preventing as it does direct local treatment, will necessarily be obvious to any one who is aware of the extraordinary benefit derived from the application of the solid nitrate of silver in certain forms of ulceration of the cornea, and also that of the wine of opium in other strumous cases when well diffused, not on the everted mucous membrane, but over the cornea itself and into the upper *cul de sac* of the conjunctiva. I am, &c.

E. D. L. Gillott, Surgeon to the Eye Dispensary, Sheffield.

September 2.

"Medicine:" How it ought to be Studied.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As your Journal has such a high scientific character, perhaps you will permit me to make one or two remarks, in all friendliness, on the "Address," recently delivered by Dr. Walshe, on Medicine: that Address in effect was a laboured attack on the modern deductive science of John Stuart Mill and Buckle, and a glorification of induction, as laid down by Lord Bacon, as applicable to Medicine.

Now, any one conversant with the *Novum Organon* or the *De Augmentis* must know that Bacon himself distinctly disavows that the hasty generalisations of the inductive method are fitted for Medicine, but rather the crude traditions of experience. "Medicine advances in a circle or horse-in-a-mill-fashion," he says, if we neglect the good old aphorisms of Hippocrates; "they be the best Physicians which incline to the traditions of experience," etc. He also says, "we are indebted to wild animals for the best Surgery, to the pot-lid that flew open for artillery (steam-engines?), to the ibis for physic, generally to chance rather than logic, for all these things;" and again, "the mind of the Physician doth gather this excellent dew of knowledge,—'*Heri mellis cælestia dona*'—distilling and contriving it out of particulars natural and artificial (deduction?), and so the mind by herself doth manage and act an induction much better than they describe it." Lord Macaulay, a thorough disbeliever in induction, gives us this idea again in the story of the mince pies which give the Christmas schoolboy formidable gastrodynia; he requires no induction to tell him so, but the Doctor does.

The ellipse of astronomers of a planet's orbit is the favourite induction of some speakers at the late "Association" meeting; but J. Stuart Mill holds it is no induction at all, whilst he thinks the humbug oddity of Hahnemann, that his present wretched humbug followers venerate. "*Similia similibus curantur*," is the only induction in modern Medicine; all superstitions, too, says Mill, are inductions. The cure of the king's evil by the royal touch, notably a remarkable one, phlogiston another, and so on. Now, I believe some things, such as Walls's "Law of Dew," Dalton's "Laws of Definite Proportion," etc., are inductions of great value and beauty, though an Oxford Professor the other day, of a peculiar school, stated he would not admit water to be composed of oxygen and hydrogen till all the water in the world was chemically examined! Still, one sees every day the mischief of this passion for "generalisation," and neglect of deduction in pathological subjects. Take one or two of the latest inductions from a logical series of facts. Bernard, with the severest induction logic, shows that the liver forms sugar; Pavy explains that it is a post-mortem change; the late Dr. Snow described cardiac syncope as the form in which death occurs from chloroform, it is also a post-mortem change and is not syncope at all.

Dr. Walshe was rather severe on poor Buckle because he denied the hereditary character of cancer or insanity; but many besides Buckle deny it, too. A battle of a dozen years has been going on between Cambridge and Oxford on this superiority of induction or deduction. Dr. Whewell rather failed in the fight against Mill and Buckle. The late Prince Consort evidently studied this controversy with great care; and his words at the opening of the British Association at Aberdeen ought to be printed in letters of gold; they were something to this purport,—That in mathematical and physical science the inductive logic is best, but in all the biological sciences and Medicine the disturbing causes are so many, our best knowledge must come from comparing groups of cases one with another, arguing from what is known to what we wish to know; in short, deduction. Harvey did not argue at all inductively from the valves of the veins, as some since his day do for him. Jenner's discovery of vaccination was deductive from comparing groups of cases; so of Darwin on "Species," Morton and chloroform, etc. I am, &c.

25, Sackville-street, September 6. C. K.

P.S.—What makes our midwifery manuals so valuable? Not the bold induction that would please Dr. Farr,—that in 10,000 cases of one kind so many die, in 10,000 of another so many. No, not this; but comparison of ever increasing groups of cases: take placenta prævia, to wit, where we compare spontaneous expulsion of placenta, artificial delivery of child, with similar cases, the child left to Nature, 1 in 5 mortality in one, 1 in fifteen in the other; and so of a dozen other forms of this one group of cases, that is Mr. Mill's deductive science; systematised experience.

Or let us take pneumonia and its treatment: what earthly good is the induction that in 10,000 cases the law of mortality, under the lancet, is, according to the classic Andral, only 50 per cent.; under Louis, 33 per cent.?

The Physician Marcellus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following is abridged from a paper by the Editor of the *Ulster Journal of Archæology* (vol. iv., p. 264), and may perhaps interest your philological readers. The work of Marcellus is probably seldom read either by Physicians or philologists; but it is noticed at some length in Sprengel's "Geschichte der Arzneykunde" (vol. ii., p. 250), and several "charms" are there given in the language referred to in this communication.

September 8. I am, &c. J. D.

Dr. Joseph Grimm, in 1847, was the first to direct attention to the work of the old Medical author, Marcellus; and, from an examination of its hitherto unintelligible formulas, to announce his conviction that the position of the old Gaulish language with regard to the two great branches of the Celtic (represented by the Irish and the Welsh) was different from what was generally supposed. The following are Grimm's words:—

"It is now eight years since I directed the attention of the Academy of Berlin to a work of a neglected philologist and antiquary, Marcellus, the private Physician of Theodosius the Great, entitled, 'De Medicamentis Empiricis,' and this with a double purpose in view: I wished to bring together the numerous traditionary and superstitious cure-formulas or charms contained in this book, and which we find at an early period extending, with a wonderful coincidence, over all Europe. And secondly, I endeavoured to establish the discovery that these passages in the work of Marcellus,—a Gaul born in Aquitaine,—were composed in a Celtic language. What were previously considered as unmeaning gossiping sayings, now proved to be the earliest monuments of the Gaulish tongue; preceding, by about three centuries, the oldest Irish MSS. and reaching back almost to the time of the remains of Nephilas."

Grimm, being joined in the inquiry by another eminent philologist, Pictet, of Geneva, succeeded in explaining a considerable number of those formulas or charms. As a specimen of the method by which this result is obtained, we give the following from Pictet:—

"Formula 12.—He who shall labour often under the disease of watery (or blood-shot) eyes, let him pluck the herb millefolium up by the roots, and of it make a hoop, and look through it, saying three times—'Excicumacriosos,' and let him as often move the hoop to his mouth, and spit through the middle of it; and then plant the herb again."

"I divide the formula thus: *exci cuma criosos;* and I translate it 'see the form of the girdle.' *Exci* may be explained in two ways without altering the meaning, *see! Ex* may be the prefix or the preposition, which in ancient Irish had become *ess* or *es* (now *eas*). The Gaulish form was certainly *ex*, identical with the Latin *ex*. The second element *ci* (in *exci*), can only be the imperative of the Irish verb *cim*, or *cighim*, I see. *Cuma* is identically the Irish *cuma*, *cum*, form, model. *Criosos* can be nothing but a genitive of *crios*, *cris*, a girdle. The process of cure recommended in the formula is of a character altogether symbolical. Girdles seem to have performed an important part in Celtic Medicine. By making the eye look through the circle formed by the plant, a girdle, as it were, was put round it; and it is for this reason that the formula says 'see the form (or model) of the girdle.' The action of spitting afterwards through the little ring expresses symbolically the expulsion of the pain."

If the unintelligible gibberish, which so often accompanies quack methods of cure, can be shown to be a corrupted remnant of a very ancient language, and that one our own Irish language in its early form, it will be an extremely curious and interesting result. The subject is by no means trifling or unimportant, and, when properly reviewed, it gives room for the exercise of much talent and the application of much and varied learning.

"The most attractive name in the list of inmates of an ancient Irish house is that strange denomination 'the astronomer.' This aspiring title, was, however, merely a pompous one for the family 'Physitian.' Astronomy, Necromancy, and Medicine were cultivated as kindred arts by the Pagan Irish, and also by the English as recently as the time of Chaucer, whose 'Doctour of Physike' was grounded as well in magic and astronomy as Physic and Surgery. Though the presence of one qualified to cure the wounded was constantly needful in a chieftain's house, the hereditary Doctors of Gaelic clans and great Anglo-Irish families generally had lands assigned them for their support. Ballyally Castle belonged to the Neillans, who were Physicians to the O'Brians. Whenever cows and sheep were killed for the food of a large Irish household, several parts were apportioned to the various dependants. Thus of a cow, the head, 'tong,' and feet were given to the smith, who had knocked it down with his 'big hammer;' the neck to the butcher, the kidneys to the 'Physitian,' the udder to the harper, etc. Similar customs prevailed in the Hebrides. Dr. Johnson says, 'to the servants and dependants that were not domestics were appropriated certain portions of land for their support. Macdonald has a piece of ground yet, called the Bard's or Senachie's field. When a beef was killed for the house, particular parts were claimed as fees by the several officers or workmen. The head belonged to the smith, and the udder of a cow to the piper, etc.; and so many pieces followed these prescriptive claims that the laird's was at last but little.' And Martin, in his description of the Hebrides, says 'the chieftains bestowed the cow's head, feet, and all the entrails upon their dependants,' such as the Physicians, etc,"—*Ulster Journal of Archæology*, vol. iii. p. 119.

COMMUNICATIONS have been received from—

Mr. W. Gaylon; Mr. Furneaux Jordan; Mr. G. Lowe; Dr. Ussher; Professor Laycock; Manchester; Bristol; Dr. M'Craith; Lincoln; Mr. W. Hewitt; Dr. Kirkes; S. W.; Mr. Parker; X. Y. Z.; A Subscriber; J. D.; Dr. Kidd; Dr. Hardwick.

APPOINTMENTS FOR THE WEEK.

September 13. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

15. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

16. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Loudon, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.

19. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Henry Smith—Removal of Tumour from the Face; Removal of Tumour from the Arm; For Necrosis of Tibia; Reduction of Dislocation of Head of Humerus.

By Mr. Wood—Removal of Dead Bone from Head of Tibia.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES

IN

ENGLAND.

SESSION 1862—1863.

UNIVERSITY OF OXFORD.

OFFICERS, 1862.

Chancellor.—The Earl of Derby, D.C.L.

High Steward.—The Earl of Carnarvon, D.C.L.

Vice-Chancellor.—Francis Jeune, D.C.L., Master of Pembroke.

Registrar.—Edward Wetherell Rowden, D.C.L., late Fellow of New College.

PROFESSORS.

Regius Professor of Medicine.—H. W. Acland, M.D., Ch. Ch.

Sherardian Professor of Botany.—C. G. B. Daubeny, M.D., Fellow of Magdalen.

Lichfield's Professor of Clinical Medicine.—H. W. Acland, M.D.

Linacre Professor of Physiology and Anatomy.—George Rolleston, M.D., Pembroke.

Aldrichian Professor of Chemistry.—Benjamin C. Brodie, M.A., Balliol.

TERMS REQUIRED FOR DEGREES IN ARTS.

By those who have not taken any Degree in Arts, Michaelmas and Hilary Terms are each kept by six weeks' residence, and Easter and Trinity Terms by three weeks each.

Twelve terms are required for the Degree of Bachelor of Arts, from all except the sons and eldest sons of the eldest sons of Peers, etc.

Bachelors of Arts proceed to their M.A. Degree in the twenty-seventh term (in the privileged cases twenty-third) from their Matriculation.

EXAMINATIONS REQUIRED FOR DEGREES IN ARTS.

All Undergraduates must pass three public Examinations before they can proceed to the B.A. Degree.

I. "Responsions," which may be passed any time up to the Sixth Term.

II. "Moderations," which may be passed as early as the Seventh and as late as the Tenth Term.

III. The "Public Examination," which must be passed in two Schools, but not necessarily in the same Term, as early as the Twelfth, and (for Honours) as late as the Eighteenth Term. These Schools are (*a*) that of Literæ Humaniores, to be passed first and *by all;* (*b*) either Mathematics, or Natural Science, or Law and Modern History, whichever the candidate chooses.

TERMS REQUIRED FOR DEGREES IN MEDICINE.

For the Degree of Bachelor in Medicine, three years' or twelve terms' residence are necessary, as in the case of candidates for Degrees in Arts, with whom they must undergo a public examination, after which sixteen terms, or four years of Professional study, are necessary.

A B.M. enjoys the same privilege with the B.C.L. in reference to his M.A. Degree.

For a Doctor's Degree, three whole years after the Bachelor's are required.

EXAMINATIONS REQUIRED FOR DEGREES IN MEDICINE.

For the Degree of Bachelor of Medicine all Students (besides undergoing the same examination appointed for Bachelors of Arts) must pass two Medical Examinations; the first (in Anatomy, Physiology, Chemistry, Botany, and Mechanical Philosophy) (a) after the expiration of *two* years; the second (in the Theory and Practice of Medicine, Materia Medica and Therapeutics, Pathology, Hygiene, etc.) after the expiration of *four* years, from the date of having passed the B.A. examination in one School.

For a Doctor's Degree in Medicine a dissertation upon some subject, to be approved by the Regius Professor, is to be publicly recited in the Schools, and a copy of it afterwards delivered to the Professor.

UNIVERSITY FEES.

1. At Matriculation.—For a Servitor, or Bible-Clerk, 10s. For a nobleman, or the eldest son of a peer, £8. For Privileged persons (according to Stat. tit. vi. 5, § 1), not claiming immunity, £5. For all others, £2 8s. And for non-Academicians, £1.

2. At Graduation.—For the Degree of B.A., S. Med., or S.C.L., £7 10s.; for B. Med., £6 10s. For the Degree of M.A., £12. For the Degree of M.A., if he has been admitted to his B.C.L. Degree before September 29, 1855, £4 5s.; if after that time, £7. For M.A., if B. Med., £7. For Bachelors in Divinity, £14; in Law, £6 10s. For Doctor in any of the superior faculties, £40. For Bachelor of Music, £5. For Doctor in Music, £10. For a Degree by Decree of Convocation, or granted to any in their absence, besides the usual fees, £5. For Degrees by accumulation, beyond the usual fees, £5. If any M.A. or Doctor, after having quitted the University, shall wish to return, he shall reside twenty-one days in any one Term, and pay a fee of £10, unless he would prefer to pay up the fees due from the time of his leaving the University. If he shall not reside, £20.

3. Incorporation Fees.—B.A., £8; M.A., £15; Bachelor in any of the superior faculties, £15; Doctor in any superior faculty, £40; B. Mus., £5; D. Mus., £10. For a Diploma, beyond the usual fees, £10 10s.

4. Fees *comitatis causa*, £1. Besides the above, every member of the University pays £1 6s. annually, in four quarterly payments, as University dues. In lieu, however, of this payment, all members having graduated, may at their option compound for all such dues on the following scale, viz.:—If he have not exceeded his 25th year, £22 15s.; 30th, £21 15s.; 35th, £20 12s. 6d.; 40th, £19 8s. 6d.; 45th, £18; 50th, £16 7s. 6d.; 55th, £14 15s.; 60th, £13 1s. 6d.; 70th, £9 6s. 6d.

5. Fees at Examination.—All Undergraduates are called upon to pay fees on entering their names for their respective Examinations: viz., for Responsions, 20s.; the First Public Examination, 21s.; the Final Examination, 21s.; for admission into any second school, 10s.; for Examination in Civil Law, 20s.; and in Medicine, 20s. An additional fee of £10 for the Examinations in Medicine is paid to Bachelors in that Faculty before admission to that degree.

UNIVERSITY OF CAMBRIDGE.

OFFICERS, 1862.

Chancellor.—His Grace the Duke of Devonshire.

High Steward.—Lord Lyndhurst, LL.D.

Vice-Chancellor.—Rev. Dr. Phillips, Queen's College.

Registrar.—H. Luard, M.A.

PROFESSORS.

Regius of Physic.—Henry J. Hayles Bond.

Chemistry.—G. Liveing, M.A., St. John's College.

Anatomy.—W. Clark, M.D., F.R.S.

Botany.—C. C. Babington, M.A., F.R.S., F.L.S.

Downing Professor of Medicine.—W. W. Fisher, M.D.

Linacre Lecturer on Physic.—G. E. Paget, M.D.

Lecturer on Human Anatomy and Physiology.—G. M. Humphry, M.D., F.R.S.

REGULATIONS FOR DEGREES IN MEDICINE AND SURGERY.

For the Degree of Bachelor of Medicine five years of Medical study are required, except in the case of those who have graduated with honours as Bachelors of Arts, four years being then deemed sufficient.

Nine terms (three years) must be spent in the University, the first three in the study of Classics and Mathematics, and the previous examinations in the additional subjects must be passed. The last six terms are devoted to Medical study. Four terms only of Medical study, however, in the University are required of a B.A. who has graduated with honours.

There are two Examinations. The first (after three years of Medical study) is in Chemistry, Botany, Comparative Anatomy, Human Anatomy and Physiology, Materia Medica and Pharmacy, Pathology, and selected portions of Celsus, Hippocrates, and Aretæus. Students who have passed in Chemistry, Botany, and Comparative Anatomy, in the examination for the Natural Sciences tripos, are not required to be again examined in them.

The second Examination (at the conclusion of the period of

(a) Candidates who have already obtained a place in the first or second class in the Natural Science School, are excused these three last subjects.

Medical study) is in Physiology, Pathology, and the Practice of Physic, Clinical Medicine, Medical Jurisprudence, and the Medical treatment of Surgical and Obstetric diseases.

The Examinations are partly in writing, partly *viva voce*.

An Act has to be kept, which consists in reading an original Thesis, and a *viva voce* examination on the subject of the thesis, and on other subjects.

Previously to the first Examination, Lectures must have been attended on Chemistry (including manipulations), Botany, Comparative Anatomy, Human Anatomy, and Physiology, Pathology, Materia Medica and Pharmacy; also Dissections for six months.

Previously to the second Examination, Lectures must have been attended on the Principles and Practice of Physic, Clinical Medicine, Clinical Surgery, Medical Jurisprudence, Obstetrical Medicine; also Hospital Practice for three years.

The Degree of Doctor of Medicine may be taken three years after M.B. An Act has to be kept with *viva voce* Examination. A Master of Arts, proceeding to M.D., is required to produce the same certificates and pass the same Examinations as for M.B.

For the Degree of Master in Surgery the course is the same as for M.B., till the first Examination; and the first Examination is the same as for M.B.

The second Examination (at the completion of the period of study) is in Surgical Anatomy, Pathology, and the Principles of Surgery, Clinical Surgery (at the bed-side) Midwifery, and Medical Jurisprudence.

Previously to the second Examination Lectures must have been attended on Human Anatomy (a second course), the Principles and Practice of Surgery, Clinical Surgery, Midwifery (with ten cases), Medical Jurisprudence; also a second season of Dissections, three years' Surgical, and one year's Medical Practice at a recognised Hospital, and a House-Surgeoncy or Dressership for six months.

Attendance at the Hospital and Lectures in Cambridge is recognised by the Universities of Cambridge and London, and (for one year) by the College of Surgeons and the Society of Apothecaries.

UNIVERSITY OF LONDON.

Visitor.—The Queen.
Chancellor.—Earl Granville, K.G., etc.
Vice-Chancellor.—George Grote, Esq., D.C.L., etc.
Senate.—Thirty-six Members.
Registrar.—Dr. Carpenter, F.R.S., etc.
Chairman of Convocation.—Dr. Foster.
Clerk of Convocation.—Wm. Shaen, Esq., M.A.
Clerk to the Senate.—Henry Moore, Esq.
Practice of Medicine.—William Jenner, Esq., M.D., and Alexander Tweedie, Esq., M.D., F.R.S.
Surgery.—Thos. Blizard Curling, Esq., F.R.S., and Professor Wm. Fergusson, F.R.S.
Anatomy and Physiology.—Professor Peter Redfern, M.D., and Professor Wm. Sharpey, M.D., Sec. R.S.
Physiology, Comparative Anatomy, and Zoology.—George Busk, Esq., F.R.S., and Professor Thomas H. Huxley, F.R.S.
Midwifery.—Wm. Tyler Smith, Esq., M.D., and Charles West, Esq., M.D.
Chemistry.—Professor Wm. Allen Miller, M.D., F.R.S., and Professor Alex. Wm. Williamson, Ph.D., F.R.S.
Botany and Vegetable Physiology.—Joseph Dalton Hooker, Esq., M.D., F.R.S., and John Lindley, Esq., Ph.D., F.R.S.
Materia Medica and Pharmaceutical Chemistry.—Professor Alfred Baring Garrod, M.D., F.R.S., and George Owen Rees, Esq., M.D., F.R.S.
Forensic Medicine.—Professor Wm. Augustus Guy, M.B., and Wm. Odling, Esq., M.B., F.R.S.

REGULATIONS RELATING TO DEGREES IN MEDICINE.

BACHELOR OF MEDICINE.

Candidates for the Degree of Bachelor of Medicine shall be required—

1. To have passed the Matriculation Examination of this University, or to have taken a Degree in Arts in one of the Universities of the United Kingdom.

2. To have been engaged in their Professional studies during four years subsequently to Matriculation or Graduation in Arts, at one or more of the Medical Institutions or Schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised Institutions or Schools in the United Kingdom.

3. To pass the Preliminary Scientific Examination (a), and two Examinations in Medicine.

PRELIMINARY SCIENTIFIC EXAMINATION.

The Preliminary Scientific Examination shall take place once in each year, and shall commence on the third Monday in July.

No Candidate shall be admitted to this Examination until he shall have completed his seventeenth year, and shall have either passed the Matriculation Examination or shall have taken a Degree in Arts in one of the Universities of the United Kingdom; nor unless he have given to the Registrar fourteen days' notice of his intention to present himself.

The fee for this Examination shall be five pounds. No Candidate shall be admitted to the Examination unless he have previously paid this fee to the Registrar. If a Candidate fail to pass the Examination, the fee shall not be returned to him, but he shall be afterwards admissible to the Preliminary Scientific Examination without the payment of any additional fee, provided that he give notice to the Registrar at least fourteen days before the commencement of the Examination.

Candidates shall be examined in the following subjects:—Statics; Dynamics; Hydrostatics, Hydraulics, and Pneumatics; Optics; Heat; Electricity; Magnetism.

CHEMISTRY.

Outlines of Crystallography. Ismorphism. Dimorphism. Allotropic conditions of matter. Chemical Affinity. Laws of Combination by weight and by volume, as deduced from the history of the individual elements. Equivalent numbers. Equivalent volumes. Symbolical notation. Formulæ. Nomenclature. Chemical actions produced under the influence of Heat. Nature of Combustion. Structure and properties of Flame. Principles of Illumination. Chemical action of Light. Photography. Oxygen. Ozone. Hydrogen. Water. Nitrogen. Chemical constitution of the Atmosphere. Diffusion of Gases. The Oxides of Nitrogen; Nitric acid. Ammonia. Chlorine, Bromine, and Iodine; their compounds with Oxygen and Hydrogen. Theory of Bleaching. Fluorine and Hydrofluoric acid. Sulphur. Sulphurous acid. Manufacture and Chemical applications of Sulphuric acid. Other Oxygen compounds of Sulphur. Sulphuretted Hydrogen. Phosphorus. Oxygen and Hydrogen compounds of Phosphorus. Theory of Acids. Monobasic, Dibasic, and Tribasic acids. Carbon. Carbonic oxide and Carbonic acid. The principal Hydrogen compounds of Carbon. Manufacture of Coal-gas. Silicon and Boron; their compounds with the elements previously enumerated. Metals. Characters of Metals as a Class. Metallurgical Processes. Alloys. Classification of the Metals. Potassium. Nitre; Gunpowder. Theory of the action of Gunpowder. Sodium. Manufacture of Carbonate of Soda. Barium. Strontium. Calcium. Mortars. Cements. Magnesium. Aluminum. Glass. Porcelain. Manganese. Iron; Composition and properties of cast iron, wrought iron, and steel. Chromium. Cobalt. Nickel. Zinc. Cadmium. Lead; Manufacture of white lead. Copper. Mercury. Bismuth. Tin. Arsenic. Antimony. Silver. Gold. Platinum. Principal compounds of the Metals with the non-Metallic elements. Theory of Salts. Principles of Mineral Analysis. Principles of Electro-Chemistry.

Candidates shall not be approved by the Examiners unless they show a competent knowledge in all the subjects of Examination. On Wednesday morning at nine o'clock in the following week, the Examiners shall publish the names of such Candidates as have passed. The names shall be arranged in two Divisions, each in alphabetical order. And a Pass Certificate, signed by the Registrar, shall be delivered to each Candidate who may apply for it.

EXAMINATION FOR HONOURS.

Any Candidate who has passed the Preliminary Scientific Examination may be examined for Honours in (1) Chemistry and Natural Philosophy, (2) Biology. Candidates for Honours in Chemistry and Natural Philosophy shall be examined in any of the following subjects, at the option of the Examiners:—Elementary Substances and their Combinations; Electro-

(a) Candidates who have matriculated previously to January, 1861, will not be required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany; and they will be allowed to pass the Preliminary Scientific Examination and the First M.B. Examination in the same year, if they so prefer.

Chemistry; Radiant Chemical Action; Heat; Static and Dynamic Electricity; Magnetism. This Examination shall take place on Tuesday and Wednesday in the second week after the Pass Examination; in the morning from ten to one, and in the afternoon from three to six. In the course of the following week the Examiners shall publish, in the order of proficiency, a list of the Candidates who acquit themselves to their satisfaction. Candidates shall be bracketed together if the Examiners are of opinion that there is no clear difference between them. In determining the relative position of Candidates, the Examiners shall have regard to the proficiency in the corresponding subjects evinced by the Candidates at the Pass Examination. Candidates for Honours in Biology shall be examined in any of the following subjects, at the option of the Examiners:—Vegetable Histology; Vegetable Morphology; Vegetable Physiology (including Development); Systematic Botany (the Structural and Physiological characters of the principal Natural Orders of the Vegetable Kingdom); Zoology (the typical Structure and mode of Development, with the chief deviations from each, of every class in the Animal Kingdom.) This Examination shall take place on Thursday and Friday in the second week after the Pass Examination; in the morning from ten to one, and in the afternoon from three to six. In the course of the following week the Examiners shall publish, in the order of proficiency, a list of the Candidates who acquit themselves to their satisfaction. Candidates shall be bracketed together if the Examiners are of opinion that there is no clear difference between them. In determining the relative position of Candidates, the Examiners shall have regard to the proficiency in Botany and Vegetable Physiology and in Zoology and Comparative Anatomy displayed by the Candidate at the Pass Examination. If in the opinion of the Examiners any Candidate of not more than twenty-two years of age who shall have passed either the Preliminary Scientific M.B. Examination or the First B.Sc. Examination shall possess sufficient merit, the Candidate who shall distinguish himself the most of all the Candidates who shall have passed either of the said Examinations, and who are not more than twenty-two years of age, in Chemistry and Natural Philosophy, and the Candidate who shall distinguish himself the most of all the Candidates who shall have passed either of the said Examinations, and who are not more than twenty-two years of age, in Biology, shall each receive an Exhibition of forty pounds per annum for the next two years, payable in quarterly instalments (it being intended that one Exhibition only shall be given in each case among all the Candidates, although some of such Candidates may have passed the Preliminary Scientific M.B. Examination, and others the First B.Sc. Examination); provided that on receiving each instalment he shall declare his intention of presenting himself at the First M.B. Examination within three years from the time of his having passed the Preliminary Scientific Examination, or at the Second B.Sc. Examination within two years from the time of his having passed the First B.Sc. Examination.

FIRST M.B. EXAMINATION.

The First M.B. Examination shall take place once in each year, and shall commence on the last Monday in July. No Candidate shall be admitted to this Examination unless he have produced certificates to the following effect.—1. Of having completed his nineteenth year. 2. Of having passed the Preliminary Scientific Examination at least one year previously.(b) 3. Of having, subsequently to having taken a Degree in Arts, or passed the Matriculation Examination, been a Student during two years at one or more of the Medical Institutions or Schools recognised by this University; and of having attended a Course of Lectures on each of three of the subjects in the following list:—Descriptive and Surgical Anatomy, General Anatomy and Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Midwifery and Diseases peculiar to Women and Infants, Surgery, Medicine. 4. Of having Dissected during two Winter Sessions. 5. Of having attended a course of Practical Chemistry, comprehending Practical Exercises in conducting the more important processes of General and Pharmaceutical Chemistry; in applying tests for discovering the adulteration of articles of the Materia Medica, and the presence and nature of poisons; and in the examination of Mineral Waters, Animal Secretions, Urinary Deposits, Calculi, etc. 6. Of having attended to Practical Pharmacy, and of having acquired a practical knowledge of the preparation of Medicines.

These Certificates shall be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for this Examination shall be five pounds. No Candidate shall be admitted to the Examination unless he have previously paid this fee to the Registrar. If a Candidate fail to pass the Examination, the fee shall not be returned to him; but he shall be afterwards admissible to the first M.B. Examination without the payment of any additional fee, provided that he give notice to the Registrar at least fourteen days before the commencement of the Examination.

Candidates shall be examined in the following subjects:—Anatomy; Physiology; (c) Materia Medica and Pharmaceutical Chemistry; Organic Chemistry.

Such Candidates only as shall be placed in the First Division shall be admissible to the Examination for Honours.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the First M.B. Examination may be Examined for Honours in any or all of the following subjects:—Anatomy; Physiology, Histology, and Comparative Anatomy; Materia Medica and Pharmaceutical Chemistry, and Organic Chemistry.

The Examinations shall take place in the week following the commencement of the First M.B. Examination. They shall be conducted by means of printed papers; but the Examiners shall not be precluded from putting *viva voce* questions upon the written answers of the Candidates when they appear to require explanation.

If, in the opinion of the Examiners, sufficient merit be evinced, the Candidate who shall distinguish himself the most in Anatomy, the Candidate who shall distinguish himself the most in Physiology, Histology, and Comparative Anatomy, and the Candidate who shall distinguish himself the most in Materia Medica and Pharmaceutical Chemistry, and in Organic Chemistry, shall each receive an Exhibition of £40 per annum for the next two years, payable in quarterly instalments; provided that on receiving each instalment he shall declare his intention of presenting himself at the Second M.B. Examination within three years from the time of his having passed the First M.B. Examination.

Under the same circumstances, the First and Second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

SECOND M.B. EXAMINATION. (d)

The Second M.B. Examination shall take place once in each year, and shall commence on the first Monday in November.

No Candidate shall be admitted to this Examination within two Academical years of the time of his passing the First Examination, nor unless he have produced Certificates to the following effect:—

1. Of having passed the First M.B. Examination.

2. Of having, subsequently to having passed the First M.B. Examination, attended a Course of Lectures on each of two of the subjects comprehended in the list above, and for which the Candidate had not presented Certificates at the first M.B. Examination.

3. Of having conducted at least twenty Labours. Certificates on this subject will be received from any legally qualified Practitioner in Medicine.

4. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery.

5. Of having attended the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Medicine. N.B.—The Student's attendance on the Surgical and the Medical Hospital Practice

(b) See Note, p. 296.

(c) Any Candidate shall be allowed, if he so prefer, to postpone his Examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects, until the First M.B. Examination in the next or any subsequent year; but such Candidate shall not be admitted to compete for Honours on either occasion; and he shall not be admitted as a Candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his Examination in Physiology.

(d) The Second M.B. Examination in the year 1862 will be carried on under the former Regulations. Any Candidate presenting himself for it after 1862, who has passed the First M.B. Examination under the former Regulations, will be required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the new Regulations, at which Examination he shall not be allowed to compete for Honours.

specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the first M.B. Examination.

6. Of having, subsequently to the completion of his attendance on Surgical and Medical Hospital Practice, attended to Practical Medicine, Surgery, or Midwifery, with special charge of patients, in an Hospital, Infirmary, Dispensary, or Parochial Union, during six months.

The Candidate shall also produce a certificate of moral character from a Teacher in the last School or Institution at which he has studied, as far as the Teacher's opportunity of knowledge has extended.

These certificates shall be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for this Examination shall be £5. No Candidate shall be admitted to the Examination unless he have previously paid this fee to the Registrar. If a Candidate fail to pass the Examination, the fee shall not be returned to him; but he shall be afterwards admissible to the second M.B. Examination without the payment of any additional fee, provided that he give notice to the Registrar at least fourteen days before the commencement of the Examination.

Candidates shall be examined in the following subjects:—General Pathology, General Therapeutics, and Hygiene; Surgery; Medicine; Midwifery; Forensic Medicine. The Examination shall include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry.

Such Candidates only as shall be placed in the First Division shall be admissible to the Examination for Honours.

The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

EXAMINATION FOR HONOURS.

Any Candidate who has been placed in the First Division at the Second M.B. Examination may be examined for Honours in any or all of the following subjects:—Surgery; Medicine; Midwifery.

The Examinations shall take place in the week following the commencement of the Second M.B. Examination. They shall be conducted by means of printed papers; but the Examiners shall not be precluded from putting *viva voce* questions upon the written answers of the Candidates when they appear to require explanation. If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most in Surgery shall receive £50 per annum for the next two years, with the style of University Scholar in Surgery. Under the same circumstances, the Candidate who shall distinguish himself the most in Medicine shall receive £50 per annum for the next two years, with the style of University Scholar in Medicine. Under the same circumstances, the Candidate who shall distinguish himself the most in Midwifery shall receive £30 per annum for the next two years, with the style of University Scholar in Midwifery. Under the same circumstances, the Candidate who shall distinguish himself the most in Forensic Medicine shall receive £30 per annum for the next two years, with the style of University Scholar in Forensic Medicine. Under the same circumstances, the first and second Candidates in each of the preceding subjects shall each receive a gold medal of the value of £5.

DOCTOR OF MEDICINE.

The Examination for the Degree of Doctor of Medicine shall take place once in each year, and shall commence on the fourth Monday in November. No Candidate shall be admitted to this Examination unless he have produced certificates to the following effect:—1. Of having taken the Degree of Bachelor of Medicine in this University. 2. Of having attended, subsequently to having taken the Degree of Bachelor of Medicine in this University: *a.* To Clinical or Practical Medicine during two years in an Hospital or Medical Institution recognised by this University. *b.* Or, to Clinical or Practical Medicine during one year in an Hospital or Medical Institution recognised by this University, and of having been engaged during three years in the practice of his Profession. *c.* Or, of having been engaged during five years in the practice of his Profession, either before or after taking the Degree of Bachelor of Medicine in this University. One year of attendance on Clinical or Practical Medicine, or two years of practice, will be dispensed with in the case of those Candidates who at the Second Examination have been placed in the First Division. 3. Of moral character, signed by two persons of respectability.

These certificates shall be transmitted to the Registrar at least fourteen days before the Examination begins.

The fee for the Degree of Doctor of Medicine shall be £5.(e) No Candidate shall be admitted to the Examination unless he have previously paid this fee to the Registrar. If a Candidate fail to pass the Examination, the fee shall not be returned to him, but he shall be admissible to any subsequent Examination for the same Degree without the payment of any additional fee, provided that he give notice to the Registrar at least fourteen days before the commencement of the Examination.

The Examination shall be conducted by means of printed papers and *vivâ voce* interrogation.

Candidates shall be examined in the following subjects:—Logic and Moral Philosophy—Names, Notions, and Propositions; Syllogism; Induction and Subsidiary Operations; the Senses; the Intellect; the Will, including the Theory of Moral Obligation. (Candidates who have taken a Degree in Arts or in Science in this University, or in a University the Degrees granted by which are recognised by the Senate of this University, shall be exempted from this part of the Examination). (f) Medicine.

If in the opinion of the Examiners sufficient merit be evinced, the Candidate who shall distinguish himself the most at the Examination for the Degree of Doctor of Medicine shall receive a gold medal of the value of £20.

REGULATIONS RELATING TO CANDIDATES WHO COMMENCED THEIR MEDICAL STUDIES IN OR BEFORE JANUARY, 1839.

BACHELOR OF MEDICINE.

Candidates who commenced their Professional studies in or before January, 1839, shall be required to pass the Preliminary Scientific Examination in Chemistry and Botany only, and shall be admitted to the First Examination for the Degree of Bachelor of Medicine on producing Certificates to the following effect:—1. Of having been engaged during two years in their Professional Studies. 2. Of having attended a Course of Lectures on each of four of the subjects comprehended in the list at page 103. 3. Of having Dissected during nine months. 4. Of having attended to Practical Pharmacy during a sufficient length of time to enable them to acquire a practical knowledge in the Preparation of Medicines.

Candidates who commenced their Professional studies in or before January, 1839, shall be admitted to the Second Examination for the Degree of Bachelor of Medicine on producing certificates to the following effect:—1. Of having been engaged during four years in their Professional studies. 2. Of having passed the First M.B. Examination. 3. Of having attended a Course of Lectures on each of two of the subjects comprehended in the list at page 297. 4. Of having Dissected during twelve months. 5. Of having attended to Practical Pharmacy during a sufficient length of time to enable the Pupil to acquire a practical knowledge in the Preparation of Medicines. 6. Of having conducted, at least, six Labours. 7. Of having attended the Surgical Practice of a recognised Hospital or Hospitals during twelve months. 8. Of having attended the Medical Practice of a recognised Hospital or Hospitals during other twelve months. 9. Of having completed the twenty-second year of their age. 10. Of moral character from a Teacher in the last School or Institution at which they have studied, as far as the Teacher's opportunity of knowledge has extended. Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

REGULATIONS RELATING TO PRACTITIONERS IN MEDICINE OR SURGERY DESIROUS OF OBTAINING DEGREES IN MEDICINE.

BACHELOR AND DOCTOR OF MEDICINE.—BACHELOR OF MEDICINE.

Candidates shall be admitted to the two Examinations for the Degree of Bachelor of Medicine on producing Certificates to the following effect:—1. Of having been admitted prior to the year 1840 Members of one of the legally constituted Bodies in the United Kingdom for Licensing Practitioners in

(e) This fee will continue to be £10 to all such as, having taken their M.B. Degree under the former Regulations, shall not have paid the fee of £5 at the Preliminary Scientific Examination.

(f) The Degrees in Arts of all Universities in the United Kingdom are recognised by the Senate for this purpose.

Medicine or Surgery; or, of having served previously to 1840 as Surgeons or Assistant-Surgeons in Her Majesty's Army, Ordnance, or Navy, or in the Service of the Honourable the East India Company. 2. Of having received a part of their education at a recognised Institution or School, as required by the Charter of the University. 3. Of moral character, signed by two persons of respectability. Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

DOCTOR OF MEDICINE.

Candidates who have been engaged during five years in the Practice of their Profession shall be admitted to the Examination for this Degree on producing certificates to the following effect:—1. Of having been engaged during five years in the Practice of their Profession. 2. Of having taken the Degree of Bachelor of Medicine in this University. Candidates who have not taken a Degree in Arts, or passed the Matriculation Examination in this University, will be required to translate a portion of Celsus *de Re Medica*.

UNIVERSITY OF DURHAM.

Warden.—The Venerable Charles Thorp, D.D., F.R.S.
Reader in Medicine.—Dennis Embleton, M.D., F.R.C.S.
Professor of Mathematics.—The Rev. Temple Chevalier, B.D.
Lecturer in Chemistry.—T. Richardson, M.A.
Registrar.—The Rev. Temple Chevalier, B.D.

Regulations relating to Medical Students, passed in Convocation in Easter Term, 1861:—

No one shall be held to be a Student in Medicine who has not been registered in a Register kept for that purpose. No one shall be so registered unless he has passed the Registration Examination, or such other Examination as the Warden and Senate shall deem equivalent. No grace for a Licence in Medicine shall be granted, unless the petitioner is of the age of twenty-one years, has spent four years in Medical study since his registration at one or more of the following places, namely, Durham, Newcastle-upon-Tyne, or in some other Medical School approved by the University, and has passed two public Examinations. No one shall be admissible to the first of these Examinations unless he has spent four years at least in Medical study as above prescribed. No one shall be admissible to the second of these Examinations unless he has spent four years at least in Medical study as above prescribed, and has passed the first Examination. No grace for the Degree of Bachelor of Medicine shall be granted, unless the petitioner is a Licentiate in Medicine, and is of the standing of twenty-one terms (seven years) at least from the date of his registration or matriculation. No one, who is not a Bachelor of Arts, shall be admissible to the Degree of Bachelor of Medicine, unless he has kept three terms by residence at Durham, and has passed both the final Examination for the Degree of Bachelor of Arts, or an equivalent to it, and also the Examination for the Degree of Bachelor of Medicine. No grace for the Degree of Doctor of Medicine shall be granted unless the petitioner is a Bachelor of Medicine of twenty-four terms at least (eight years) standing from his registration or matriculation, nor unless he has performed such exercises as the Warden and Senate require. This regulation shall be held to apply to those who are already Bachelors of Medicine. These regulations shall not (except by the desire of Students themselves) affect any Students in Medicine who were matriculated before October 1, 1861. These regulations shall not interfere with the power of the University to grant Degrees by Diploma to persons of sufficient standing and approved merit. No grace for the Degree of Master in Surgery shall be granted unless the person is of the age of twenty-one years, has spent four years in Medical and Surgical study since his registration as a Student in Medicine, in some one or more of the following places, namely, Durham, Newcastle-upon-Tyne, or other Medical School approved by the University, and has passed two public examinations. The first of these Examinations shall be the first Examination appointed for Students in Medicine. No one shall be admissible to it who has not spent two years in Medical and Surgical study, as above prescribed. The second of these examinations shall be partly the same as that appointed for Students in Medicine, and partly different from it. No one shall be admissible to it who has not spent four years at least in Medical and Surgical study, as above prescribed, and passed the first Examination.

Regulations relating to persons now Students in Medicine at the Newcastle-upon-Tyne School of Medicine:—

1. Any Student in Medicine who has pursued his Medical studies in the Newcastle-upon-Tyne College of Medicine before the 1st day of August, 1861, and has been matriculated at the University of Durham before the same date, shall be entitled to count the time thus spent at Newcastle as if it had been spent after registration, provided he passes one of the ordinary Registration Examinations before October 31, 1862.

2. Any Student in Medicine who has spent two or more years in Medical study at Newcastle-upon-Tyne College of Medicine before the 1st day of August, 1861, and has been matriculated at the University of Durham before the same date, shall be admissible to the second and final Examination for a Licence in Medicine, or for the Degree of Master in Surgery, without having passed the first Examination, provided he has passed one of the ordinary registration Examinations before October 31, 1862, and has completed four years of Medical study since his admission as a Medical Student at Newcastle.

Order of Senate relating to the Registration of Students in Medicine, and to the Registration Examination. Passed May 21, 1861:—

1. The name of every Student in Medicine shall be placed on a Register kept by the Registrar of the University of Durham.

2. No one shall be registered unless he has produced to the Warden the requisite Certificates of Examination and character.—The requisite Certificate of Examination shall be a certificate of his having passed either the Registration Examination appointed by the University of Durham, or any one of the examinations named in the Minutes of the Medical Council for England, No. 24.

The Examination will begin at Durham on Tuesday, September 23, 1862, at nine in the morning, and on Tuesday morning, April 28, 1863, at nine.

ROYAL COLLEGE OF PHYSICIANS, LONDON.

President.—Dr. Thomas Watson.
Censors.—Drs. Budd, A. Farre, Birkett, and Monro.
Treasurer.—Dr. Alderson.
Registrar.—Dr. H. A. Pitman.
Secretary.—Mr. W. Copney.

The following Regulations were issued on August 4, 1862, and are now in force:—

EXTRACTS FROM BYE-LAWS AND REGULATIONS.

LICENTIATES.

The College will, under its Charter, grant licences (which are not to extend to make the Licentiates Members of the Corporation) to persons who shall conform to the following Bye-laws and Regulations:—

Every Candidate for the College Licence (except in cases specially exempted) is required to produce satisfactory evidence to the following effect:—1. Of having attained the age of twenty-one years. 2. Of moral character. 3. Of having passed a preliminary Examination in the subjects of general education. 4. Of having been registered as a Medical Student by one of the Bodies named in Schedule (A) of the Medical Act. 5. Of having been engaged in Professional studies during four years, of which, at least, three years shall have been passed at a recognised Medical School or Schools, and of having attended the Medical Practice at a recognised Hospital or Hospitals, during two years of that period; and the Surgical Practice during twelve months; and of having been engaged during six months in the Clinical Study of Diseases peculiar to women. The last of the four years of Professional study must be passed at a Medical School, Hospital, Infirmary, or Dispensary recognised by the College. 6. Of having studied the following subjects:—Anatomy (with Dissections) during two Winter Sessions of six months each; Physiology during two Winter Sessions of six months each; Chemistry during six months; Practical Chemistry during three months; Materia Medica during three months; Practical Pharmacy during three months; Botany during three months; Morbid Anatomy during six months, or certified attendance in the Post-mortem Room during the period of Clinical Study; Principles and Practice of Medicine during two Winter Sessions of six months each; Principles and Practice of

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Surgery during six months; Clinical Medicine during one Winter Session, and one Summer Session, or nine months; Clinical Surgery during six months; Midwifery and the Diseases peculiar to Women during three months. A Certificate must also be produced of having attended not less than twenty Labours; Forensic Medicine during three months. 7. Of having passed the Professional Examinations.

Any Candidate who shall fail to pass either of these Examinations, shall not be re-admitted to Examination until after the lapse of six months.

Any Candidate, being a "Registered Medical Practitioner," whose qualification or qualifications shall have been obtained before the first day of January, 1861, having been, with the consent of the College, admitted a Candidate for the Licence, will be examined on the Principles and Practice of Medicine, Surgery, and Midwifery; but he will be exempted from such other parts of the Professional Examinations as his qualifications may seem to the Examiners to render in his case unnecessary.

Any Candidate, who has already obtained the Degree of Doctor or Bachelor of Medicine at a University, approved and recognised by the College, after a course of study and an Examination satisfactory to the College, shall be exempt from the First Part of the Professional Examination for the Licence.

Any Candidate who has already obtained the Licence of the Royal College of Physicians of Edinburgh, or of the King and Queen's College of Physicians in Ireland, after a course of study and an Examination satisfactory to the Examiners appointed by the College, shall be exempt from the First Part of the Professional Examination for the Licence.

Every Candidate before receiving the College Licence shall be required to pledge himself by subscribing his name to the following words:—"I faithfully promise to observe and obey the Statutes, Bye-laws, and Regulations of the College relating to Licentiates, and to submit to such penalties as may be lawfully imposed for any neglect or infringement of them."

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

The fee to be paid for the Licence to practise Physic as a Licentiate of the College shall be fifteen guineas.

EXTRACTS FROM THE BYE-LAWS "OF THE DUTIES AND CONDUCT OF FELLOWS, MEMBERS, AND LICENTIATES."

No Fellow of the College shall be entitled to sue for Professional aid rendered by him. (This Bye-law is made pursuant to the 21st and 22nd Vict., c. 90, and does not extend to Members.)

No Fellow or Member of the College shall be engaged in trade or dispense medicines, or make any engagement with a chemist or any other person for the supply of medicines, or practise Medicine or Surgery in partnership, by deed or otherwise.

No Fellow, Member, or Licentiate of the College shall refuse to make known, when so required by the President and Censors, the nature and composition of any remedy he uses.

No Fellow, Member, or Licentiate of the College shall assume the title of Doctor of Medicine, or use any other name, title, designation, or distinction implying that he is a Graduate in Medicine of a University, unless he be a Graduate in Medicine of a University.

Licentiates of this College shall not compound or dispense medicines except for patients under their own care.

No Licentiate of this College shall, by virtue of his Licence, represent himself as being a Fellow or Member of a College of Physicians.

THE PRELIMINARY EXAMINATION.

The Preliminary Examination will be held at the College in March and September:—Tuesday, September 23, Wednesday, September 24, 1862; and Tuesday, March 24, September 22, Wednesday, March 25, September 23, 1863. Tuesday morning, ten to one. English and Latin. English will include English Grammar and Composition. Latin will include selections from the following authors:—September, 1862—Horatii Carmina, Lib. ii. Cornelius Nepos—Vita Miltiadis. March, 1863—Virgilii Æneis, Lib ii. Cicero de Natura Deorum, Lib. i. September, 1863—Horatii Carmina, Lib i. Cicero de Senectute. Wednesday morning, ten to one. English History and Modern Geography. Wednesday afternoon, two to five. Mathematics and Natural Philosophy. Mathematics will include the ordinary Rules of Arithmetic, Vulgar and Decimal Fractions, Simple Equations, the First Book of Euclid. Natural Philosophy will include Mechanics, Acoustics, Hydrostatics, Hydraulics, Pneumatics, and Optics. Such a knowledge of these subjects will be expected as may be obtained from attendance on a course of Lectures, or from Elementary Treatises on Physics, or Natural Philosophy. The Examination will be conducted in writing; but the Examiners are not precluded from questioning any Candidate orally, if they think fit.

The Preliminary Examination must be passed previously to the time of commencing studies at a Medical School; but in the case of Candidates who have commenced the prescribed course of Medical studies before the first day of October, 1861, the Examination in General Education may be passed at any time before the Examination for the Licence; and in the case of Candidates who shall have commenced the prescribed course of Medical studies before the last day of September, 1862, the Examination in General Education must be passed before the first day of October, 1862.

Every Candidate intending to present himself for the Preliminary Examination must give fourteen days' notice in writing to the Registrar of the College; and before he is admitted to the Examination he must pay a fee of two guineas. Should he fail to pass the Examination, the fee will not be returned, but he may be admitted to a subsequent Preliminary Examination without the payment of an additional fee.

Testimonials of proficiency granted by the National Educational Bodies, according to the following list, with such additions as may from time to time be made, will be accepted by the Examiners as satisfactory, in lieu of the Preliminary Examination conducted at the College:—A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised, from time to time, by the Medical Council. Oxford Responsions or Moderations. Cambridge Previous Examinations. Matriculation Examination of the University of London. Oxford Middle Class Examinations, Senior and Junior (a). Cambridge Middle Class Examinations, Senior and Junior (a). Durham Middle Class Examinations, Senior and Junior (a). Durham Examinations for Students in Arts, in their second and first years. Durham Registration Examination for Medical Students. Dublin University Entrance Examination. Queen's University, Ireland, two years' Arts' course for the Diploma of Licentiate in Arts. Preliminary Examinations at the end of A.B. Course. Middle Class Examinations. Matriculation Examinations. First Class Certificate of the College of Preceptors. An Examination established by any of the Bodies named in Schedule (A) of the Medical Act, approved by the Medical Council.

Any Certificate of Proficiency in General Education which does not affirm the proficiency of the Candidate in Latin, will not be deemed a sufficient proof of Preliminary Examination.

After September, 1865, the Preliminary Examination in the subjects of General Education will cease to be conducted at the College, and no other testimonials of proficiency than those granted by the National Educational Bodies, approved by the Medical Council, will, after that date, be accepted as proof of a sufficient General Education.

THE PROFESSIONAL EXAMINATION.

Students preparing for the Professional Examination for the Licence are required either to register at this College within fourteen days from the commencement of each Session, or to furnish proof, before admission to examination, of having been thus registered by one of the Bodies named in Schedule (A) of the Medical Act.

Every Candidate, before he is admitted to examination, will be required to sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) of the Medical Act.

The Examination is divided into two parts. (b) The first part will be conducted as follows:—On the first day, from seven to ten p.m., by written questions on Anatomy and Physiology. Second day, from seven to ten p.m., by written

(a) After January 1, 1863, all Junior Middle Class Examinations will be excluded from the List.

(b) Examinations of Candidates for the College Licence will take place as follows:—1862.—First part, commencing October 7 and December 2. Second part, commencing October 14 and December 9. 1863.—First part, commencing February 3, April 7, June 2, July 7, October 6, and December 1. Second part, commencing February 10, April 14, June 9, July 14, October 13, and December 8.

questions on Chemistry, Materia Medica, and Practical Pharmacy. Third day, no Examination. Fourth day, commencing at seven o'clock p.m., *viva voce*, on the subjects stated above. The second part will be conducted as follows :—On the first day, from seven to ten p.m., by written questions on Midwifery, and the Diseases Peculiar to Women. Second day, from seven to ten p.m., on the Principles and Practice of Medicine and Surgery. Third day.—The Candidate's practical knowledge will be tested, by requiring him to examine persons labouring under disease, either at the College or in the Wards of an Hospital. Fourth day, commencing at seven o'clock p.m., *viva voce*, on the subjects stated above.

The first part of the Professional Examination is to be undergone after the termination of the Second Winter Session of study at a recognised Medical School, and the second part after an interval of at least eighteen months from the first Examination, except in the case of students who have commenced their Professional Education before October, 1861.

Any Candidate who shall fail to pass either of these Examinations, will not be re-admitted to Examination until after the lapse of six months.

Every Candidate intending to present himself for Examination, must give fourteen days notice, in writing, to the Registrar of the College, with whom all Certificates and Testimonials must be left fourteen days before the day of Examination.

Blank forms of the required Certificates of attendance on Hospital Practice and on Lectures may be obtained on application at the College. (c)

The fee for admission to the first part of the Examination is £5 5s. ; the fee for admission to the second part of the Examination is £10 10s. ; and there is no further fee for the Licence.

ROYAL COLLEGE OF SURGEONS OF ENGLAND,

LINCOLN'S-INN-FIELDS.

President.—James Luke.*

Vice-Presidents.—Frederick Carpenter Skey* and Joseph Hodgson.*

The Council.—William Lawrence,* Joseph Swan, Joseph Henry Green,* James Moncrieff Arnott,* John Flint South,* Cæsar H. Hawkins,* Thomas Wormald,* Gilbert Wakefield Mackmurdo, Francis Kiernan,* William Coulson, George Gulliver, Richard Partridge, John Hilton, Richard Quain, Edward Cock, Samuel Solly, Thomas Tatum, Alexander Shaw, William Fergusson, Thomas Paget, and John Adams.

Board of Examiners in Midwifery.—Frederick C. Skey, Dr. Arthur Farre, Dr. Henry Oldham, Dr. Robert Lee.

Examiners for the Fellowship in Classics, Mathematics, and French.—Goldwin Smith, George Gabriel Stokes, Isidore Brasseur.

Professor of Human Anatomy and Surgery.—Samuel Solly.

Professor of Comparative Anatomy and Physiology.—George Gulliver.

Professor of Histology.—Thomas Henry Huxley.

Conservator of the Museum.—William Henry Flower.

Librarian.—John Chatto.

Secretary.—Edmund Belfour.

Assistant-Secretary.—E. J. Trimmer.

Clerk.—Thomas Madden Stone.

Those marked * are Members of the Court of Examiners.

REGULATIONS RESPECTING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE DIPLOMA OF MEMBER OF THIS COLLEGE.

Section I.—Preliminary General Education and Examination.—Candidates who have commenced their Professional Education on or after January 1, 1861, will be required to produce one or other of the following certificates :—1. Of Graduation in Arts at a University recognised for this purpose. The following are the Universities at present recognised, viz., Oxford, Cambridge, Dublin, London, Durham, and Queen's University in Ireland ; Calcutta, Madras, and Bombay ; Canada : McGill College, Montreal, and Queen's College, Kingston. 2. Of having passed an Examination for Matriculation, or such other Examination as shall, in either case, from time to time be sanctioned by the Council of this College, at a University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of this College. The following are the Examinations at present recognised under this Clause (No. 2), viz., Oxford : Responsions or Moderations ; Middle-Class Examinations, Senior and Junior.(a) Cambridge : Previous Examination ; Middle-Class Examinations, Senior and Junior.(a) Dublin : Entrance Examination. London : Matriculation Examination. Durham : Examination of Students in Arts in their second and first years ; Middle-Class Examinations, Senior and Junior (a) ; Registration Examination for Medical Students. Queen's University in Ireland : Two year's Arts Course for Diploma of Licentiate in Arts ; Preliminary Examinations at end of B.A. Course ; Middle-Class Examinations ; Matriculation Examinations. Queen's College, Belfast : Preliminary Examination for non-Matriculated Students. Edinburgh : Extra Professional Examination for Graduation in Medicine. Calcutta, Madras, and Bombay : Matriculation Examinations. McGill College, Montreal : Preliminary Examination in General Literature. Queen's College, Kingston, Canada : Matriculation Examination ; Preliminary Examination of Students in Medicine. 3. Of having passed the Preliminary Examination of the Royal College of Physicians of London. 4. Of having passed the Preliminary Examination for the Fellowship of this College. 5. Of having passed the Preliminary Examination of the Faculty of Physicians and Surgeons of Glasgow. 6. Of having passed the First Class Examination of the Royal College of Preceptors. 7. Candidates who shall not be able to produce one or other of the foregoing Certificates will be required to pass an Examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the Royal College of Preceptors, under the direction and supervision of the Council of this College.

The following are the subjects of the Examination (No. 7) during the year 1862, viz. :—Part I.—1. Reading aloud a passage from some English author. 2. Writing from dictation. 3. English Grammar. 4. Writing a short English composition, such as a description of a place, an account of some useful or natural product, or the like. 5. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, and of Vulgar Fractions. 6. Questions on the Geography of Europe, and particularly of the British Isles. 7. Questions on the outlines of English History, that is, the succession of the Sovereigns and the leading events of each reign. Part II. —Papers will also be set on the following eight subjects, and each Candidate will be required to offer himself for examination on one subject at least, at the option of the Candidate ; but no Candidate will be allowed to offer himself for examination on more than four subjects :—1. Translation of a passage from the First Book of Cæsar's Commentaries, "De Bello Gallico." 2. Translation of a passage from St. John's Gospel in Greek. 3. Translation of a passage from Voltaire's "Histoire de Charles XII." 4. Translation of a passage from the first two books of Schiller's "Geschichte des dreissigjährigen Krieges." Besides these translations into English, the Candidate will be required to answer questions on the Grammar of each selected subject. 5. Mathematics. Euclid, Books I. and II. Algebra to Simple Equations inclusive. 6. Mechanics. The questions will be chiefly of an elementary character. 7 Chemistry. The questions will be on the elementary facts of Chemistry. 8. Botany and Zoology. The questions will be on the Classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account.

N.B.—For the year 1863, Decimals, Euclid, Books I. and II., and Latin, will be added to the list of compulsory subjects in Part I.

Section II.—Professional Education.—I. Candidates who shall commence their Professional Education on or after October 1, 1862, will not be allowed to register the commencement of attendance on Lectures or Hospital Practice before they shall have passed an Examination in General Literature, in conformity with the regulation of the Council in relation thereto.

II. The following will be considered as the commencement of Professional Education :—1. Attendance on the Practice of an Hospital, Dispensary, or other Public Institution recog-

(c) Hours of attendance, from eleven a.m. to four p.m.; Saturday, from eleven a.m. to two p.m.

(a) From and after January 1, 1863, certificates of having passed any Junior Middle-Class Examination will not be received, Latin not being made compulsory.

nised by this College for that purpose.(b) 2. Instruction as the Pupil of a Member of one of the Royal Colleges of Surgeons in the United Kingdom, or of the Faculty of Physicians and Surgeons of Glasgow.(b) 3. Attendance on Lectures on Anatomy, Physiology, Chemistry, or Natural Philosophy, by Lecturers recognised by this College. The certificate of the commencement of Professional study in any one of the foregoing modes must be transmitted to the College within one week of such commencement; and a certificate of the continuance of such attendance or instruction during the period of six months must be transmitted to the College immediately upon the termination thereof, in order that the same may be registered for future reference.

III.—Candidates will be required to produce the following other certificates, viz.:—1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of Professional knowledge. 3. Of having studied Practical Pharmacy during three months. 4. Of having attended Lectures on Anatomy, delivered not less frequently than four times in each week, during two Winter Sessions. 5. Of having performed Dissections during not less than two Winter Sessions. 6. Of having attended Lectures on Physiology delivered not less frequently than twice in each week, during two Winter Sessions. 7. Of having attended Lectures on Surgery during two Winter Sessions. 8. Of having attended one Course of Lectures on each of the following subjects, viz., Chemistry, Materia Medica, Medicine, and Midwifery. 9. Of instruction and proficiency in the Practice of Vaccination. 10. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Surgery, and Clinical Lectures on Surgery, during three Winter (c) and two Summer (d) Sessions. 11. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom or Colonies, the Practice of Medicine, and Clinical Lectures on Medicine, during one Winter and one Summer Session.

N.B.—Blank forms of the required certificates may be obtained on application to the Secretary, and all such certificates will be retained at the College.

Section III.—I. Certificates will not be received on more than one branch of Science from one and the same Lecturer; but Anatomy and Dissections will be considered as one branch of Science.

II. Certificates will not be recognised from any Hospital in the United Kingdom unless the Surgeons thereto be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy and Physiology or Midwifery, unless the Teachers in such School be members of some legally constituted College of Physicians or Surgeons in the United Kingdom; nor from any School of Surgery, unless the Teachers in such School be members of one of the legally constituted Colleges of Surgeons in the United Kingdom.

III. No Metropolitan Hospital will be recognised by this College which contains less than 150, and no Provincial or Colonial Hospital which contains less than 100 patients.

IV. The recognition of Colonial Hospitals and Schools is governed by the same Regulations, with respect to number of patients and to Courses of Lectures, as apply to the recognition of Provincial Hospitals and Schools in England.

V. Certificates of Attendance, commenced subsequently to the 8th of December, 1859, upon the Practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be required.

VI. Certificates will not be received from Candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on Lectures and Hospital Practice within fifteen days from the commencement of the Session; nor from Candidates who have studied in the Provincial Schools in England, unless their names shall be duly returned from their respective Schools.

N.B.—At the Registration in October, 1862, all Candidates whatever, and at all subsequent Registrations every Candidate registering for the first time, will be required to produce, in addition to the cards of admission to attendance on Hospital Practice and Lectures to which they shall have entered, a copy of their respective registers of baptism, or other satisfactory certificate of the place and period of their birth, in compliance with the recommendation of the General Council of Medical Education and Registration. And those Candidates who shall not have commenced their Professional education before the 1st of October, 1862, will be further required to produce a certificate of having passed one or other of the Preliminary Literary Examinations recognised by this College.

VII. Those Candidates who shall have pursued the whole of their studies in Scotland or Ireland will be admitted to examination upon the production of the several certificates required respectively by the Colleges of Surgeons of Edinburgh and Ireland from Candidates for their Diploma, together with a certificate of instruction and proficiency in the Practice of Vaccination; and in the case of Candidates who shall have pursued the whole of their studies at recognised Foreign or Colonial Universities, upon the production of the several certificates required for their Degree by the authorities of such Universities, together with a certificate of instruction and proficiency in the Practice of Vaccination.

VIII. Members or Licentiates of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University recognised for this purpose by this College, will be admitted to examination on producing their Diploma, Licence, or Degree, together with proof of being twenty-one years of age, of having been occupied at least four years in the acquirement of Professional knowledge, and of instruction and proficiency in the Practice of Vaccination.

IX. Graduates in Medicine of any legally constituted College or University recognised for this purpose by this College, will be admitted to examination on adducing, together with their Diploma or Degree, proof of being twenty-one years of age, of having been occupied at least four years in the acquirement of Professional knowledge, and of instruction and proficiency in the Practice of Vaccination.

Section IV.—Professional Examination.—This Examination is divided into two parts. 1. The First or Primary Examination, on Anatomy and Physiology, is partly written and partly demonstrative on the recently dissected subject, and on prepared parts of the human body. 2. The Second or Pass Examination, on Pathology, Surgery, and Surgical Anatomy, is partly written and partly oral. 3. The Primary Examinations are held in the months of January, April, May, July, and November, and the Pass Examinations generally in the ensuing week respectively. 4. Candidates will not be admitted to the Primary, or Anatomical and Physiological Examination, until after the termination of the second Winter Session of their attendance at a recognised School or Schools; nor to the Pass, or Pathological and Surgical Examination, until after the termination of the fourth year of their Professional education. 5. Candidates, being Graduates in Medicine of either of the Universities of Oxford, Cambridge, or London, will be required to present themselves for the Pass Examination in Pathology and Surgery only. 6. The fee of five guineas paid by each Candidate prior to his Primary Examination will not be returned, but will be allowed in the fee on his admission as a Member. 7. A Candidate having entered his name for either the Primary or Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, will not be allowed to present himself for examination within the period of three months from the date at which he shall have so failed to attend.

(b) Attention being paid in either of the foregoing cases to Practical Pharmacy.

(c) The Winter Session comprises a period of six months, and, in England, commences on the 1st of October, and terminates on the 31st of March.

(d) The Summer Session comprises a period of three months, and, in England, commences on the 1st of May and terminates on the 31st of July.

THE SOCIETY OF APOTHECARIES.

BLACKFRIARS.

Master.—C. W. Wheeler, Esq.

Wardens.—H. Combe, Esq., and J. L. Wheeler, Esq.

Court of Examiners.—Dr. T. Ansell, Chairman; Dr. R. H. Robertson, Dr. R. King, Dr. G. Corfe, Dr. R. H. Semple, Dr. W. G. T. Dyer, Dr. C. Taylor, T. R. Wheeler, Esq., Dr. H. M. Rowdon, Dr. Stephen H. Ward, Dr. J. S. Stocker, Dr. F. C. Webb.

Secretary to the Court of Examiners.—A. M. Randall, Esq.

Professor of Chemistry and Materia Medica and Examiner for the Society's Prizes in Materia Medica and Pharmaceutical Chemistry.—W. T. Brande, Esq., D.C.L., F.R.S.

Examiner for the Society's Prizes in Botany.—Joseph D. Hooker, Esq., M.D., F.R.S., F.L.S.

Clerk to the Society.—R. B. Upton, Esq.

Curator of the Society's Botanic Garden—Mr. Thomas Moore.

Beadle.—Mr. J. C. Sargeant.

The Court of Examiners of the Society of Apothecaries, in revising their Regulations and Curriculum of Study, have found it necessary to make but few alterations in order fully to meet the recommendations of the General Council of Medical Education and Registration.

The Court have always regarded the term of apprenticeship required by the Act of Parliament of 1815, as a period of study to be employed by the pupil, under the superintendence of a Practitioner, not merely in dispensing medicines, but also in attendance on Lectures and Hospital Practice; and they have felt justified (after a careful consideration of the clause in the Act relating to apprentices) in giving to it this enlarged and liberal interpretation.

The Court, therefore, in accordance with the recommendations of the Medical Council, suggest, that all Students do present themselves for the Preliminary Examination in Arts at the termination of the first year of their pupilage, which year may also be profitably employed in obtaining a knowledge of Practical Pharmacy.

REGULATIONS, ETC.

Every Candidate for a certificate of qualification to practise as an Apothecary, will be required to produce testimonials:—

1. Of having passed a Preliminary Examination in Arts as a test of General Education.

This Examination must be passed before the commencement of Professional studies, which is defined by the Medical Council "to be the time of commencing studies at a Medical School"

2. Of having served an apprenticeship or pupilage of not less than five years to a Practitioner qualified by the Act of 1815. N.B.—This period may include the time spent in attending Lectures and Hospital Practice.

3. Of having attained the full age of twenty-one years:—As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured.

4. Of good moral conduct.

5. And of having pursued a course of Medical study in conformity with the regulations of the Court.

COURSE OF STUDY.

Every Candidate whose attendance on Lectures shall commence on or after the 1st of October, 1861, must attend the following Lectures and Medical Practice during not less than four winter and four summer sessions: each winter session to consist of not less than six months, and to commence not sooner than the 1st nor later than the 15th of October; and each summer session to extend from May 1 to July 31.

First Year.—Winter Session.—Chemistry; Descriptive Anatomy; Physiology.—Summer Session.—Botany; Materia Medica and Therapeutics; Practical Chemistry (a).

Second Year.—Winter Session.—Anatomy and Physiology; Anatomical Demonstrations and Dissections; Principles and Practice of Medicine; Clinical Medical Practice. Summer Session.—Midwifery and Diseases of Women and Children; Clinical Medical Practice.

Third Year.—Winter Session.—Principles and Practice of Medicine; Clinical Medical Practice and Morbid Anatomy. Summer Session.—Clinical Lectures; Forensic Medicine and Toxicology; Clinical Medical Practice and Morbid Anatomy.

Fourth Year.—Winter Session.—Practical Midwifery (b); Vaccination; Clinical Medical Practice and Morbid Anatomy. Summer Session.—Practical Midwifery; Vaccination; Clinical Medical Practice and Morbid Anatomy.

Those gentlemen whose attendance on Lectures commenced before the 1st of October, 1861, will be allowed to complete their studies in conformity with the previous regulations of the Court, provided they are registered.

Registration of Testimonials.—All testimonials must be given on a printed schedule, and the blanks therein must be filled up by the Lecturers themselves. Students will be supplied with schedules at the time of their first registration:—In London, at this Hall. In the Provincial towns, from the gentlemen who keep the Registers of the Medical Schools, and whose names may be known by application to the Secretary of this Court. All Students, in London, are required personally to register the several classes for which they have taken tickets; and those only will be considered as complying with the regulations of the Court, whose names and classes in the Register correspond with their schedules. Tickets of admission to Lectures and Medical Practice must be registered in the months of October and May. Due notice of the days and hours of such registrations will be given from time to time. The Court also require Students at the Provincial Medical Schools to register their names in their own handwriting, with the Registrar of each respective School, within the first fifteen days of October, and first fifteen days of May.

Examination in Arts.—An Examination in Arts will take place at the Hall three times in the year. Due notice will be given of the time at which each Examination will be held. N.B.—By order of the Medical Council, an Examination in Arts is compulsory on all gentlemen commencing their studies on or after the 1st of October, 1861, and must be passed previous to registration. Testimonials of proficiency in General Education will be received, as exempting from the Examination in Arts at this Hall, from the following National Educational Bodies, and also from any of the Licensing Bodies under the Medical Act of 1858. A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council. Oxford Responsions or Moderations. Cambridge Previous Examinations. Matriculation Examination of the University of London. Oxford Middle Class Examinations, senior and junior. Cambridge Middle Class Examinations, senior and junior. Durham Middle Class Examinations, senior and junior. Durham Examinations for Students in Arts, in their second and first years. Durham Registration Examination for Medical Students. Dublin University Entrance Examination. Queen's University, Ireland, two years' Arts' course for the Diploma of Licentiate in Arts. Preliminary Examinations at the end of A.B. course. Middle Class Examinations. Matriculation Examinations. First Class Certificate of the College of Preceptors.

Professional Examinations.—The Court of Examiners meet in the Hall every Thursday, where candidates are required to attend at a quarter before four o'clock. Every person intending to offer himself for Examination must give notice in writing to the Clerk of the Society on or before the Monday previous to the day of Examination, and must at the same time deposit all the required testimonials (as before specified) at the office of the Beadle, where attendance is given every day, except Sunday, from ten until four o'clock. The Examination of Candidates is divided into two parts, and is conducted partly in writing and partly *viva voce*.

First Examination, which may be passed after the Second Summer Session, embraces the following subjects:—Latin of the Pharmacopœia and Physicians' Prescriptions; Anatomy and Physiology; General and Practical Chemistry; Botany and Materia Medica.

Second Examination, after the Fourth Summer Session (the five years' pupilage being completed):—Practice of Medicine and Pathology; Midwifery, including the Diseases of Women and Children; Forensic Medicine and Toxicology.

The Examination of Candidates for certificates of qualification to act as Assistant, in compounding and dispensing medicines, will be as follows:—In translating Physicians' Prescriptions and the Pharmacopœia Londinensis; in Pharmacy and Materia Medica.

By the 22nd section of the Act of Parliament, no rejected Candidate can be re-examined until the expiration of six months from his former Examination; and no rejected Candidate as an Assistant until the expiration of three months.

Fees.—For a Certificate of Qualification to practise, six guineas; for an Assistant's Certificate, two guineas.

Prizes in Materia Medica and Pharmaceutical Chemistry, and also in Botany.—The Society of Apothecaries annually offer prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry, and also prizes for proficiency in the knowledge of Botany; and all Medical Students will be considered eligible as Candidates for such prizes who have commenced the Third Winter Session of their

(a) By Practical Chemistry is intended, a *specific* course of Instruction in the Laboratory, with an opportunity of Personal Manipulation in the ordinary processes of Chemistry, and of acquiring a knowledge of the various Reagents for Poisons.

(b) A Certificate of Attendance, on not less than twenty cases, will be received from a legally qualified Practitioner.

Medical study, and bring testimonials from their teachers of having attended with diligence and regularity their Lectures and Class Examinations. The Prizes will consist of a Gold and Silver Medal in each of these two branches of Medical Science. The Gold Medal will be given to the Candidate who distinguishes himself most in the Examination; and the Silver Medal to the Candidate who does so in the next degree. The Examination in Botany will be held in the month of August. The Examination in Materia Medica and Pharmaceutical Chemistry will be held in the month of October. Medical Students intending to offer themselves as Candidates for these Prizes are requested to observe the following regulations:—Every Student intending to offer himself as a Candidate must send a written notice of his intention to the Office of the Beadle on or before the 1st day of the month in which the Examination is to take place. The notice is to be accompanied by evidence of the Candidate having entered on his Third Winter Session, and by certificates from his teachers of his having attended their respective Lectures and Class Examinations with diligence and regularity.

ARMY MEDICAL DEPARTMENT.

Director-General.—Dr. Gibson, C.B., Honorary Physician to Her Majesty.

Head of Sanitary Branch.—Dr. Logan, C.B., Inspector-General of Hospitals, Honorary Physician to Her Majesty.

Head of Statistical Branch.—Dr. Balfour, F.R.S., Deputy-Inspector-General.

Head of Medical Branch.—Dr. Mapleton, F.R.C.P., Deputy-Inspector-General.

Staff Surgeons.—Dr. Crauford, Mr. Braybrooke, and Mr. Fitzgerald, attached to the office.

Chief Clerk.—Walter Bassano, Esq.

The name of no gentleman can be placed on the list of Candidates who does not possess a legal qualification to practise Medicine as well as Surgery in Great Britain or Ireland.

Competitive Examinations for Assistant-Surgeoncies take place in February and August of each year. The successful Candidates proceed to the Army Medical School at Chatham to attend a four months' course before they are finally approved as Assistant-Surgeons.

The Candidates must be unmarried, not beyond twenty-six years of age, nor under twenty-one years.

Before promotion from the rank of Assistant-Surgeon to any higher rank, every gentleman must be prepared to undergo the examination laid down in the regulations.

Licences and Diplomas must be lodged at the office for examination and registry at least one week before the candidate appears for examination; likewise certificates of moral conduct and character—one of them by the parochial minister, if possible. Baptismal certificates are required at the same time; and if the parish register cannot be resorted to, an affidavit from one of the parents, or from some near relative who can attest the fact, will be accepted.

Note.—All communications to the Director-General, not prepaid, to be forwarded, addressed *outside* to "The Under-Secretary of State for War," with the words, "Army Medical Department," at the left-hand corner.

1. The grades of Medical officers in the Army are four in number, viz.:—

(1.) Inspector-General of Hospitals. (2.) Deputy-Inspector-General of Hospitals. (3.) Staff or Regimental Surgeon; who, after twenty years' full-pay service in any rank, shall be styled Surgeon-Major. (4.) Staff or Regimental Assistant-Surgeon.

2. No Assistant-Surgeon is eligible for promotion to the rank of Surgeon, until he shall have passed such examination as our principal Secretary of State for War may require, and shall have served on full-pay with the commission of Assistant-Surgeon for five years, of which two shall have been passed in or with a regiment.

3. Assistant-Surgeons are, as a general rule, promoted to the rank of a Surgeon in the order of their seniority in the service, unless unfit for the discharge of their duties from physical or Professional incompetence, or misconduct. In cases of distinguished service, however, an Assistant-Surgeon may be promoted without reference to seniority; and in such cases, with a view to insure the responsibility attaching to an appointment made out of the regular course of promotion, the recommendation in which the services of the officer shall be detailed, shall be published in the general orders of the Army and in the *Gazette* in which his promotion appears.

4. The rates of pay per day of the Medical officers of the Army are in accordance with the following Schedule:—

Rank.	After 30 years' Service on Full-pay.	After 25 years' Service on Full-pay.	After 20 years' Service on Full-pay.	After 15 years' Service on Full-pay.	After 10 years' Service on Full-pay.	After 5 years' Service on Full-pay.	Under 5 years' Service on Full-pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General	2 5 0	2 5 0	2 0 0*	..	..	..	..
Deputy-Inspector-General	1 14 0	1 10 0	1 8 0*	..	..	..	..
Surgeon-Major ..	..	1 5 0	1 2 0	..	..	..	..
Surgeon	..	..	..	0 18 0	0 15 0*	..	..
Assistant-Surgeon	..	..	..	..	0 13 0	0 11 6	0 10 0

* Or on promotion, should these periods of service not be already completed.

The rates of half-pay are as follows:—

Rank.	After 30 years' Service on Full-pay.	After 25 years' Service on Full-pay.	After 20 years' Service on Full-pay.	After 15 years' Service on Full-pay.	After 10 years' Service on Full-pay.	After 5 years' Service on Full-pay.	Under 5 years' Service on Full-pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General	1 17 6	1 13 6	1 10 0	..	..	..	..
Deputy-Inspector-General	1 5 6	1 2 6	1 1 0	..	..	..	..
Surgeon-Major ..	..	0 18 6	0 16 6	..	..	..	..
Surgeon	..	..	..	0 13 6	0 11 0	..	..
Assistant-Surgeon	..	..	..	..	0 10 0	0 8 0	0 6 0

5. All Medical officers of the rank of Surgeon-Major, Surgeon, or Assistant-Surgeon, are placed on the retired list when they shall have attained the age of fifty-five years, and all Inspectors-General, and Deputy Inspectors-General, when they shall have attained the age of sixty-five years.

Officers thus superannuated are entitled to the rates of half-pay stated in the preceding Schedule.

6. The relative rank of the Medical officers of the Army is as follows:—Staff or Regimental Assistant-Surgeon as a Lieutenant, according to the date of his commission; and, after six years' full pay service, as Captain, according to the date of the completion of such service. Staff or Regimental Surgeon as Major, but junior of that rank, and Surgeon-Major, as Lieutenant-Colonel, but junior of that rank. Deputy Inspector-General of Hospitals, as Lieutenant-Colonel, according to the date of his commission; and, after five years' full-pay service as Deputy Inspector-General, as Colonel, according to the date of the completion of such service. Inspector-General of Hospitals, as Brigadier-General, according to the date of his commission, if with an army in the field, or after three years' full-pay service as Inspector-General, as a Major-General, from the date of his joining such army in the field, or according to the date of the completion of such service.

HER MAJESTY'S INDIAN FORCES.

Special Examinations for admission into the Medical Department of the Indian Army have for some time ceased. All candidates enter the army now for general service.

NAVY MEDICAL DEPARTMENT.

Director-General of the Medical Department of the Royal Navy.—Sir John Liddell, Kt., M.D., C.B., F.R.S.

REGULATIONS FOR CANDIDATES FOR THE OFFICE OF ASSISTANT-SURGEON IN THE ROYAL NAVY.

Admiralty, March 1, 1859.

The Right Honourable the Lords Commissioners of the Admiralty are pleased to direct that the following Regulations, relative to the Examination of Candidates for the Appoint-

ment of Assistant-Surgeon in the Royal Navy, shall in future be adopted:—

That a Candidate for entry into the Royal Navy shall make a written application to that effect, addressed to the Secretary of the Admiralty; on the receipt of which application he will be furnished with the Regulations and a printed form, to be filled up by him, to show if he possesses the required qualifications.

As vacancies occur, the number of Candidates required will be ordered to attend at the Admiralty Office, bringing with them the requisite certificates, showing that they are fully qualified by age, Professional ability, etc., when they will be examined by a Board of Medical officers, to be named by their Lordships.

That no person be admitted as an Assistant-Surgeon in the Royal Navy, who shall not produce a certificate of being registered under the Medical Act, and a Diploma from one of the Royal Colleges of Surgeons of England, Edinburgh, or Dublin, from the Faculty of Physicians and Surgeons, of Glasgow, from Trinity College, Dublin, or from other Corporate Body legally entitled to grant a Diploma in Surgery; nor as a Surgeon unless he shall produce a certificate from one of the said Colleges, Faculty, or Corporate Body, founded on an examination to be passed subsequent to his appointment of Assistant-Surgeon, as to his fitness for the situation of Surgeon in the Navy; and in every case the person producing such Diploma and Certificate shall also undergo a further examination, touching his qualifications in all the necessary branches and points of Medicine and Surgery, both at the time of his entry, and after serving three years to render himself eligible for Surgeon; and that previously to the admission of Assistant-Surgeons into the Navy, it will be required that they produce proof of having received a preliminary classical education, and that they possess, in particular, a competent knowledge of Latin; also

That they are of good moral character; the certificate of which must be signed by the clergyman of the parish, or by a magistrate of the district.

That they have served an apprenticeship, or have been engaged for not less than six months in Practical Pharmacy.

That their age be not less than twenty years, or more than twenty-six years.

That they have actually attended a recognised Hospital for eighteen months subsequently to the age of eighteen, in which Hospital the average number of patients is not less than one hundred.

That they have been engaged in actual dissections of the human body twelve months; the certificate of which from the teacher, must state the number of subjects or parts dissected by the Candidate.

That they have attended Lectures, etc., on the following subjects, at established Schools of eminence, by Physicians or Surgeons of the recognised Colleges of Physicians and Surgeons, in the United Kingdom, for periods not less than hereunder stated; observing, however, that such Lectures will not be admitted if the teacher shall lecture on more than one branch of science, or if the Lectures on Anatomy, Surgery, and Medicine be not attended during Winter Sessions of six months each:—Anatomy 18 months; or General Anatomy 12 months, and Comparative Anatomy 6 months. General Surgery 12 months, or Military Surgery 6 months, and General Surgery 6 months. Theory of Medicine 6 months, Practice of Medicine 6 months; if the Lectures on the Theory and Practice of Medicine be given in conjunction, then the period required is 12 months. Clinical Lectures (at an Hospital as above) 12 months; on the Practice of Medicine 6 months, on the Practice of Surgery 6 months. Chemistry 6 months; or Lectures on Chemistry 3 months, and Practical Chemistry 3 months. Materia Medica 6 months. Midwifery 6 months, accompanied by certificates stating the number of Midwifery cases personally attended. Botany 3 months.

In addition to the tickets for the Lectures, certificates must be produced from the Professors, etc., by whom the Lectures were given, stating the periods (in months) actually attended by the Candidates. The time also of actual attendance at an Hospital or Infirmary must be certified; and the tickets, as well as certificates of attendance, age, moral character, etc., must be produced by the Candidate previously to his examination.

Although the above are the only qualifications which are absolutely required in Candidates for the appointment of Assistant-Surgeon, a favourable consideration will be given to the cases of those who have obtained the degree of M.D. at either of the Universities of Oxford, Cambridge, Edinburgh, Dublin, Glasgow, London, or Aberdeen; or who, by possessing a knowledge of the diseases of the eye, and of any branch of science connected with the Profession, such as Medical Jurisprudence, Natural History, Natural Philosophy, etc., appear to be more peculiarly eligible for admission into the service, observing, however, that Lectures on these or any other subjects cannot be admitted as compensating for any deficiency in those required by the Regulations.

By the rules of the service, no Assistant-Surgeon can be promoted to the rank of Surgeon until he shall have served five years (two years of which must be in a ship actually employed at sea), and can produce a certificate from one of the before-mentioned Colleges, Faculty, or Corporate Body; and it is resolved, that not any certificate of Examination from any of the aforesaid Institutions shall be admitted toward the qualification for Surgeon, unless the certificate shall be obtained on an Examination passed after a period of not less than three years' actual service; observing, that no one can be admitted to an Examination for Surgeon, unless, as hereinbefore mentioned, he can produce a certificate, together with the most satisfactory proof, that he has performed, on the dead body, under the superintendence of a professor or teacher of known eminence, all the capital operations of Surgery, and is perfectly competent to perform any operation with skill and dexterity, and thoroughly acquainted with the anatomy of the parts involved in such operation; without which qualification no one hereafter can be promoted to the higher branches of the service; and whenever Assistant-Surgeons already in the service (whose Professional education may not be in accordance with the above) obtain leave to study previously to their passing for Surgeon, they will be required, on their Examination, to produce testimonials of their having availed themselves of the period of leave to complete their education agreeably to these regulations generally.

The rates of full-pay for the Medical officers of the Royal Navy are in accordance with the following Schedule:—

Rank.	After 30 years' Service on Full-pay.	After 25 years' Service on Full-pay.	After 20 years' Service on Full-pay.	After 15 years' Service on Full-pay.	After 10 years' Service on Full-pay.	After 5 years' Service on Full-pay.	Under 5 years' Service on Full-pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General of Hospitals and Fleets	2 5 0	2 5 0	2 0 0*	..	..	..	..
Deputy Inspector-General of Hospitals and Fleets	1 14 0	1 10 0	1 8 0*	..	..	..	..
Staff Surgeon ..	..	1 5 0	1 2 0	..	..	..	..
Surgeon	..	..	..	0 18 0	0 15 0*	..	..
Assistant-Surgeon	..	..	..	..	0 13 0	0 11 6	0 10 0

The rates of half-pay for the Medical officers of the Royal Navy are according to the following Schedule:—

Rank.	After 30 years' Service on Full-pay.	After 25 years' Service on Full-pay.	After 20 years' Service on Full-pay.	After 15 years' Service on Full-pay.	After 10 years' Service on Full-pay.	After 5 years' Service on Full-pay.	Under 5 years' Service on Full-pay.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inspector-General of Hospitals and Fleets	1 17 6	1 13 6	1 10 0*	..	..	..	..
Deputy Inspector-General of Hospitals and Fleets	1 5 6	1 2 6	1 1 0*	..	..	..	..
Staff Surgeon ..	..	0 18 6	0 16 6	..	..	..	..
Surgeon	..	..	..	0 13 6	0 11 0*	..	..
Assistant-Surgeon	..	..	..	..	0 10 0	0 8 0	0 6 0

* Or on promotion, should these periods of Service not have been already completed.

All Medical officers, with the ranks of Staff-Surgeon, Surgeon, and Assistant-Surgeon, will be placed on the

retired list when they shall have attained the age of 60 years. Deputy Inspectors-General will be placed on such retired list when they shall have attained the age of 65 years, and Inspectors-General when they shall have attained the age of 70 years. Officers thus superannuated will receive the rates of half-pay mentioned in the preceding Schedule.

The relative ranks of the Medical officers of the Royal Navy are as follows:—An Assistant-Surgeon will rank as a Lieutenant in the Army, according to the date of his commission, and after six years' service on full pay as a Captain in the Army, according to the date of the completion of such service. A Surgeon will rank as Major in the Army, according to the date of his commission, and a Staff-Surgeon as Lieutenant-Colonel, but junior of that rank. A Deputy Inspector-General of Hospitals and Fleets will rank as Lieutenant-Colonel, according to the date of his commission, and after five years' service on full-pay as Deputy Inspector-General will rank as Colonel, according to the date of completion of such service. An Inspector-General of Hospitals and Fleets will rank as Brigadier-General, according to the date of his commission, and after three years' service on full-pay as Inspector-General will rank as Major-General, according to the date of completion of such service.

RULES AND REGULATIONS

OF THE

EXAMINING MEDICAL BODIES IN SCOTLAND.

UNIVERSITY OF EDINBURGH.

STATUTES RELATIVE TO GRADUATION IN MEDICINE.

I. Three Medical Degrees are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

II. The preliminary branches of Extra-Professional Education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, as far as possible, prior to the commencement of their Medical study.

III. No Candidate is admitted to a Professional Examination who has not passed a satisfactory Examination on at least two of the following subjects, in addition to the subjects mentioned above:—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the Examination on these latter subjects also takes place, as far as possible, before the Candidate has entered on his Medical Curriculum.

IV. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all Preliminary Examination.

V. No one is admitted to the Degree of Bachelor of Medicine or Master in Surgery who has not been engaged in Medical and Surgical study for four years,—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than 100 Lectures each, or by one such Course, and two Courses of not less than 50 Lectures each, with the exception of the Clinical Courses, in which Lectures are to be given at least twice a-week during the prescribed periods.

VI. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—

1. That he has studied each of the following departments of Medical Science during Courses including not less than 100 Lectures, viz.:—Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine, Surgery, Midwifery and the Diseases peculiar to Women and Children,—two Courses of Midwifery of three months each being reckoned equivalent to a six months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses,—and General Pathology, or in Schools where there is no such Course, a three months' Course of Lectures on Morbid Anatomy, together with a supplemental Course of Practice of Medicine or Clinical Medicine; Practical Anatomy, six months; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or a certificate of attendance on six cases from a Registered Medical Practitioner; Clinical Medicine, Clinical Surgery, during Courses of six months or two courses of three months, Lectures being given at least twice a-week; Medical Jurisprudence, Botany, and Natural History, including Zoology, during Courses including not less than fifty Lectures.

2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has been engaged for at least three months, by apprenticeship or otherwise, in compounding and dispensing drugs at the Laboratory of an Hospital, Dispensary, Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.

4. That he has attended for at least six months, by apprenticeship or otherwise, the Out-Practice of an Hospital or the Practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.

VII. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following regulations:—

1. One of the four years of Medical and Surgical study, required by Section V., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures, as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London, or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh or elsewhere, as shall from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures, as above prescribed.

5. Candidates may, to the extent of four of the departments of Medical study required by Section VI., Sub-Section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-Section 4.

6. All Candidates, not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

9. It is not necessary for any Teacher, attendance on whose Lectures is now recognised for the purposes of Graduation in the University, to obtain a new recognition from the University Court; and attendance on the Lectures of every such Teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any Teacher or Teachers.

VIII. Every Candidate must deliver, before the thirty-first day of March of the year in which he proposes to graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year; and that he will not be, on the

day of Graduation, under articles of apprenticeship to any Surgeon or other master.

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

3. A Thesis composed by himself, to be approved by the Medical Faculty.

IX. Each Candidate is examined, both in writing and *viva voce*,—first, on Chemistry, Botany, and Natural History; secondly, on Anatomy, Institutes of Medicine, and Surgery; and, thirdly, on Materia Medica, Pathology, Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery; and Medical Jurisprudence. The Examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, and Natural History are conducted, as far as possible, by Demonstrations of objects placed before the Candidates; and those on Medicine and Surgery in part by Clinical Demonstrations in the Hospital.

X. Students who profess themselves ready to submit to an Examination on the First Division of these subjects at the end of their second year may be admitted to Examination at that time.

XI. Students who have passed their Examination on the First Division of these subjects may be admitted to Examination on the Second Division at the end of their third year.

XII. The Examination on the Third Division cannot take place until the Candidate has completed his fourth *Annus Medicus*.

XIII.—Candidates may, if they choose, be admitted to Examination on the first two of these Divisions at the end of their third year; or to the three Examinations at the end of their fourth year.

XIV. If any Candidate at these Examinations be found unqualified, he cannot be again admitted to Examination unless he has studied during another year two of the prescribed subjects, either in the University, or in some other School of Medicine.

XVIII. The Degree of Doctor of Medicine may be conferred on any Candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice: Provided always, that the Degree of Doctor of Medicine shall not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified, or unless he shall, before or at the time of his obtaining the Degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory Examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects, namely, French, German, Higher Mathematics, and Natural Philosophy.

XIX. The Medical Examiners for all Candidates for Graduation in Medicine are the Professors in the Faculty of Medicine, and, in addition three persons appointed annually by the University Court.

XX. The Provisions of these Statutes came into operation on the 4th of February, 1861.

XXI. Persons, who began their Medical Studies before the 4th of February 1861, are entitled to graduate under the system in force before or after that date, according as they may comply with the regulations in force in the University before or after that date.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

President.—Dr. Alexander Wood.
Secretary.—Dr. Rutherford Haldane.

REGULATIONS RELATING TO ADMISSION TO THE FELLOWSHIP.

Fellows.—No one can be elected a Fellow of the College till he has obtained the Degree of Doctor of Medicine. Graduates of Foreign Universities must previously submit to an examination before the Examiners of the College.

Non-resident Fellows.—The mode of election of a Non-resident is the same as that of a Resident Fellow. In his petition he engages, if he come to reside in Edinburgh, to fulfil the whole conditions which the College does or may require of Resident Fellows; but another ballot must take place before he is admitted to that grade by the College. The fees for a Resident Fellowship amount to £88, and for a Non-resident to the same sum, both inclusive of the stamp-duty to Government.

Licentiates.—Graduates of British Universities may be admitted Licentiates without any previous trial or examination; and all applicants for the Licence, with the exception of Graduates of British Universities, are required to appear before the Examiners of the College, and to pass the prescribed Examination.

The stamp-duty on the Diploma having been remitted, the fee payable by Licentiates is now £10 10s.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR THE DIPLOMA.

PROFESSIONAL EDUCATION.

1. Candidates commencing Professional study after October 1, 1861, must have been engaged in Professional study during four years after the Examination in General Education, which shall include not less than four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School. (a)

2. The Candidate must have attended the following separate and distinct Courses of Lectures:—

Anatomy, 2 Courses (b), six months each. Practical Anatomy, twelve months. Chemistry, 1 Course, six months. Practical or Analytical Chemistry, 1 Course, three months. Materia Medica, 1 Course, three months. Physiology, not less than fifty Lectures. (c) Practice of Medicine, 1 Course, six months. Clinical Medicine, six months. (d) Principles and Practice of Surgery, 1 Course, six months. Clinical Surgery, 1 course, six months. (d) In addition to the above Courses of Surgery and Clinical Surgery, one Course of either of these at the option of the Student, 1 Course, six months. (d) Midwifery and the Diseases of Women and Children, 1 Course, three months. Medical Jurisprudence, 1 Course, three months. Besides the above-mentioned Courses of Lectures, the Candidate must have attended at least six cases of Labour under the superintendence of a qualified Medical Practitioner, either in a recognised Maternity Hospital, or in a Dispensary where Midwifery cases are admitted, or in private practice; and must produce a certificate to that effect from the Practitioner under whom he attended. He must also have attended, for three months, a Course of Instruction in Practical Pharmacy, at the Laboratory of an Apothecary, or of a Member of the Pharmaceutical Society of Great Britain, or of a Chemist and Druggist recognised by the College on special application, or of a Public Hospital or Dispensary; or as Assistant to a Registered Practitioner who dispenses medicines to his own patients.

3. The Candidate must have attended, for twenty-four months, a Public General Hospital containing at an average at least eighty patients. He must also have attended, for six months, the Practice of a Public Dispensary specially recognised by the College; or have been engaged for six months as Visiting Assistant to a Registered Practitioner.

4. A certificate of three months' instruction in Pathological Anatomy at the post-mortem room of a recognised Hospital, will be required from Candidates commencing Professional Study after October 1, 1861.

5. A Certificate of proficiency in Vaccination, signed by a registered Practitioner, will be required of every Candidate.

6. The six-months' Courses delivered in Scotland must consist of not fewer than 100 Lectures, with the exception of

(a) In consequence of the proceedings of the General Medical Council in May, 1862, this regulation will not take effect until further notice. Candidates are at present admitted to Examination after four Winter Sessions' or three Winter and two Summer Sessions' attendance at a recognised Medical School.

(b) The two Courses must not be simultaneous.

(c) In those Schools of England and Ireland in which two separate Courses of Lectures are delivered at separate hours, one on Anatomy, the other on Anatomy and Physiology, the former of these Courses will be received as one of the two Courses of Anatomy required by the College, and the other as the Course of Physiology.

(d) Two Courses of Clinical Medicine of three months each, if not simultaneous, will be held equivalent to one Course of six months. They must be attended during the period of attendance at the Hospital where they are delivered. The same rules apply to Clinical Surgery.

Clinical Medicine and Clinical Surgery. The three-months' Courses must consist of not fewer than fifty Lectures.

7. The following order of study is recommended as a guide to the Student, though not enjoined :—First year : Anatomy, Practical Anatomy, Chemistry, Practical or Analytical Chemistry, Hospital. Second year : Anatomy, Practical Anatomy, Physiology, Surgery, Materia Medica (the last either in this or the third year), Hospital. Third year : Practice of Physic, Clinical Surgery, Practical Anatomy, Practical Pharmacy, Pathological Anatomy, Hospital. Fourth year : Surgery, or Clinical Surgery, Midwifery and the Diseases of Women and Children, Clinical Medicine, Medical Jurisprudence, Practical Midwifery, Hospital.

8. It is strongly recommended to Students to avail themselves of any opportunities which they may possess of attending Lectures on Ophthalmic and Mental Diseases ; also on Botany, Zoology, Comparative Anatomy, and the use of the Microscope, in addition to the Courses of Lectures which are absolutely required.

REGISTRATION.

1. A book shall be kept in the Hall of the College, for the registration of all Medical Students who may apply. In this book all Edinburgh Students who desire to possess the Diploma of the College must be registered, whether they attend Professors in the University or other qualified Teachers.

2. No Student beginning Professional study after September, 1861, can be registered who has not passed the Preliminary Examination in General Education accepted by the College, or one of the equivalent Examinations (e).

PRELIMINARY EXAMINATION IN GENERAL EDUCATION.

1. Candidates commencing their Professional studies after October 1, 1861, must satisfy the Examiners in General Education that they have a competent knowledge of the following branches of study :—1. English—Composition, and Writing to Dictation. 2. Latin. 3. Arithmetic — To Vulgar and Decimal Fractions, inclusive. 4 and 5. Any two of the following, at the option of the Candidate : (1) Algebra ; (2) Geometry—Euclid, Books I. II. and III. ; (3) Natural Philosophy ; (4) Greek ; (5) French ; (6) German ; (7) Botany ; (8) Zoology. Candidates are requested, on giving their names for the Examination, to mention which two of the optional subjects they have selected. The College will, from time to time, fix on books as guides for preparation for Examination in the preliminary branches ; and intending Candidates will be furnished with lists of these on application.

2. Testimonials of profieiency granted by certain Eduea-tional Bodies, shall be accepted as sufficient evidence of general education, and shall exempt from the Preliminary Examination.

3. After September, 1861, all Candidates for the Diploma of the College must pass the Examination in General Education before they commence their Professional studies. The time of commencing Professional study is understood to be the time of commencing study at a Medical School. (f)

4. The Preliminary Examinations shall take place at stated periods, and shall be conducted by the Special Board of Examiners in Arts which is chosen from time to time by the College, in conjunction with the Royal College of Physicians.

5. Candidates who commenced their Professional studies before October 1, 1861, may pass the Preliminary Examination in General Education at any of the periods previous to the first Professional Examination. Candidates under this regulation, who have not passed a Preliminary Examination in General Education, will be required to undergo that Examination on the day before the First Professional Examination, and shall pay a fee of £1.

PROFESSIONAL EXAMINATIONS FOR THE DIPLOMA OF THE COLLEGE.

1. Candidates for the Diploma of the College shall be subjected to two Professional Examinations, to be conducted at separate sittings, partly in writing, and partly orally.

FEES.

1. For the Diploma of the College, £10.

2. For a Certificate of Qualification to act as Assistant-Surgeon in the Navy, when no previous Qualification has been received from the College, £5 5s.

3. For a Certificate to an Assistant-Surgeon of the Royal Navy, of Qualification to act as full Surgeon, £5 5s.

The sums stated above include all fees of every kind, and the officer is prohibited from receiving any.

Note.—The fee payable for the Diploma by Apprentices of those who were Fellows of the College prior to the Charter of 1851 is £5.

(c) In consequence of the proceedings of the General Medical Council in May, 1862, this regulation will not take effect until further notice.

(f) In consequence of the proceedings of the General Medical Council in May, 1862, the regulations contained in Section 3, Chapter V. will not take effect until further notice. Candidates are, notwithstanding, recommended to pass the Examination in General Education before commencing Professional Study.

UNIVERSITY OF ABERDEEN.

The Registration of Medical Students is, like the other Bodies, arranged agreeably to the resolution of the General Council.

The regulations for granting Medical Degrees are framed in conformity with an Ordinance of the Universities' (Scotland) Commissioners, dated Mareh 16, 1861, and approved by Her Majesty in Council.

The following are the Degrees in Medicine granted by this University, namely, Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examinations for the Degrees of M.B., C.M., and M.D., being in conformity with the Ordinances of the Scotch Universities' Commissioners, are the same as those of the Universities of Edinburgh, Glasgow, and St. Andrews.

The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to these regulations :—

One at least of the four years of Medical and Surgical study must be in the University of Aberdeen.

Another of such four years must be either in this University, or in some other University entitled to give the Degree of Doetor of Medicine.

FEES FOR GRADUATION.

1. Each Candidate for the Degree of M.B. shall pay a fee of five guineas in respect of each of the three Professional Examinations ; each such fee of five guineas being payable at the time at which the Candidate comes forward to be examined in that Division in respeet of which it is payable.

2. If the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him ; but if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas.

3. And every Candidate for the Degree of Doctor of Medicine shall pay, in addition to the fees paid by him for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

EXEMPTION FROM THE FOREGOING REGULATIONS.

Students who shall have begun their Medical studies before the first Tuesday of November, 1861, will be entitled to graduate under the regulations applicable to Medieal Students in force before that date.

Further information may be obtained from the Seeretary to the Medieal Faculty, Professor Ogilvie, M.D.

UNIVERSITY OF ST. ANDREWS.

REGULATIONS REGARDING MEDICAL DEGREES.

During the present year Members and Licentiates of the Colleges of Surgeons and Physicians, of the Faculty of Physicians and Surgeons of Glasgow, and of the London Apothecaries' Company, are eligible as Candidates for the Degree of Doctor of Medicine.

The Examinations for the present year eommence on September 29 and Deeember 17. The Graduation fee is twenty-five guineas.

At the close of the present year the following regulations come in force :—

The Degree of Doctor of Medicine may be conferred by the University of St. Andrews on any registered Medical Practitioner above the age of forty years, whose Professional position and experience are sueh as, in the estimation of the

University, to entitle him to that Degree, and who shall, on Examination, satisfy the Medical Examiners of the sufficiency of his Professional knowledge; provided always, that Degrees shall not be conferred under this Section to a greater number than ten in any one year.

Any person presenting himself as a Candidate for the Degree of Doctor of Medicine under the First Section, without having previously obtained the Degree of Bachelor of Medicine, shall, on so presenting himself, pay a fee of fifty guineas, inclusive of the stamp duty.

The Degrees in Medicine to be hereafter granted by the University of St. Andrews shall be divided into three Classes, and be designated respectively Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.).

The Preliminary Examination and Professional Curriculum and Examination for these Degrees being in conformity with the Ordinances of the Scottish Universities Commissioners are the same as those of the Universities of Edinburgh, Glasgow, and Aberdeen.

No one shall be received as a Candidate for the Degree of Bachelor of Medicine or Master in Surgery, unless two years at least of his four years of Medical and Surgical study shall have been in one or more of the following Universities and Colleges, viz.:—The University of St. Andrews; the University of Glasgow; the University of Aberdeen; the University of Edinburgh; the University of Oxford; the University of Cambridge; Trinity College, Dublin; Queen's College, Belfast; Queen's College, Cork; and Queen's College, Galway.

There shall be paid by each Candidate for the Degree of Bachelor of Medicine, a fee of five guineas in respect of each of the three divisions of the Examination on Professional subjects; each such fee of five guineas being payable at the time at which the Candidate comes forward to be examined in that division in respect of which it is payable; and if the Candidate desires to be admitted to the Degree of Bachelor of Medicine only, he shall not, on admission thereto, be required to pay any further fee in addition to the fifteen guineas so paid by him; but, if he desires to be admitted to the Degree of Master in Surgery also, he shall, on being admitted to such Degree, pay a further fee of five guineas; and every Candidate for the Degree of Doctor of Medicine, who has previously obtained the Degree of Bachelor of Medicine, shall pay, in addition to the fees paid by him as a Candidate for the Degree of Bachelor of Medicine, a fee of five guineas, exclusive of any stamp duty which may for the time be exigible.

N.B.—Further information regarding the period of Examination, the Text-Books recommended for the Preliminary Examination, etc., may be obtained on application to Dr. Day, Professor of Medicine; or to the Rev. J. M'Bean, Secretary to the University.

UNIVERSITY OF GLASGOW.

Three Degrees in Medicine are granted by this University, which are respectively designated as follows, viz.:—Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). [The Preliminary Examination, Curriculum, and Professional Examinations for these Degrees being in conformity with the Ordinance of the Scottish University Commissioners, are the same as for the Universities of Edinburgh, St. Andrews, and Aberdeen.]

Of the four years constituting the Curriculum, one at least shall have been passed in the University of Glasgow, and another either in that University or some other University entitled to give Degrees in Medicine.

These Statutes apply to all Candidates who shall commence their Medical studies on or after October 1, 1861. Candidates who shall have begun their Medical studies before that date, are entitled to obtain their Degrees according to the regulations existing at the time when they commenced their studies.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

Course of Study.—1. Anatomy: Two Six Months' Courses. These must not be simultaneously attended. 2. Practical Anatomy: Twelve Months, in the course of which the whole subject must be dissected. 3. Institutes of Medicine or Physiology: Not less than fifty Lectures. Candidates educated at those Schools in England and Ireland, in which separate Courses of Lectures are delivered on Anatomy, and on Anatomy and Physiology, shall be held to have satisfied this requirement by attendance on the latter. 4. Chemistry: One Course, Six Months. 5. Practical or Analytical Chemistry: One Three Months' Course. 6. Practice of Medicine: One Six Months' Course. 7. Principles and Practice of Surgery; One Six Months' Course. 8. Clinical Medicine. 9. Clinical Surgery: One Six Months' Course of each, embracing at least two Lectures weekly, which must be attended simultaneously with attendance on the practice of the corresponding department of the Hospital at which they are delivered. 10. Materia Medica: One Three Months' Course. 11. Medical Jurisprudence: One Three Months' Course. 12. Midwifery and the Diseases of Women and Children: One Three Months' Course. 13. Practical Midwifery: Attendance on at least Six Cases of Labour in a Maternity Hospital, or under the Superintendence of a Registered Practitioner. 14. Practical Pharmacy: Three Months' Practical Instruction in the Laboratory of an Hospital or Dispensary, or in that of a Surgeon or an Apothecary, or of a Member of the Pharmaceutical Society, or of a Chemist and Druggist, recognised by the Faculty upon special application. 15. Pathological Anatomy or General Pathology at the post-mortem room of a recognised Hospital: Three Months' Course (this Course shall not be required of those who may have commenced their Course of Study prior to 1860). 16. Hospital and Dispensary Practice: Twenty-four Months' Attendance on the Practice of a Public General Hospital, containing on an average at least eighty patients; and also Six Months' Attendance on the Practice of a Public Dispensary specially recognised by the Faculty.

Candidates for the Diploma of the Faculty must produce evidence by certificates of being twenty-one years of age, and of good moral character.

Candidates commencing Professional study after October 1, 1861, must have been engaged in Professional study during four years, which shall include not less than four Winter Sessions, or three Winter and two Summer Sessions' attendance at a recognised Medical School.

The Examination for the Diploma is divided into two parts. Anatomy, Physiology, and Chemistry are the subjects of the first division of the Examination, and shall take place not sooner than the end of the second Winter Session. The Second Examination embraces all the other subjects of the course. The First Examination is conducted six times in each year. The Second (and single Examination, under the old regulation) takes place on the second Tuesday of each month. The fee for the Diploma is £10—£4 for the First and £6 for the Second Examination. All class tickets are returned to the Candidates; and in the event of their being unsuccessful, the fee is returned, less the sum of £2, which is retained.

By special regulations, Candidates who may have been five years in practice and registered under another qualification are exempted from examination in the preliminary and elementary branches of the Curriculum. Special examinations may be had upon payment of £4 extra, not returnable in case of rejection.

At present all Candidates for the Diploma are required to have a knowledge of Latin and Natural Philosophy. Those now beginning their Professional course will be required to pass a Preliminary Examination, and be registered in terms of the Ordinances of the General Medical Council.

All necessary particulars may be obtained on application to the Registrar.

FACULTY OF MEDICINE IN IRELAND.

UNIVERSITIES, COLLEGES, COURSES OF STUDY, DEGREES, AND LICENCES TO PRACTISE.

The following Bodies grant one or more Degrees or Licences to practise Medicine or Surgery, and provide courses of instruction in the Medical Sciences:—The University of Dublin grants the Degrees of M.B. or Bachelor of Medicine; M.D. or Doctor of Medicine; M.C. or Master of Surgery; also Licences in Medicine (L.M.) and Surgery (L.S.). The Queen's University in Ireland, with its Provincial Colleges at Belfast, Cork, and Galway; this University confers the Degree of M.D. The King and Queen's College of Physicians in Ireland, granting a Licence and Fellowship. This Institution, in

connexion with the Medical Faculty of the University of Dublin, constitutes the School of Physic in Ireland. The Royal College of Surgeons in Ireland, which grants Letters Testimonial qualifying to practise Surgery as a Licentiate, and also confers a Fellowship. Fellows and Licentiates of the Colleges of Physicians and Surgeons may obtain from their respective Colleges a Diploma in Midwifery. The Rotunda and Coombe Lying-in Hospitals grant Diplomas in Midwifery, which are, however, not recognised under the Medical Act. The Governor and Company of the Apothecaries' Hall of Ireland.

The Medical Session in Ireland commences about the first week in November.

UNIVERSITY OF DUBLIN.

MATRICULATION.

All Students in Medicine and Surgery of the University of Dublin must be matriculated by the Senior Lecturer of Trinity College, for which a fee of five shillings is payable; but no such Student shall be obliged to have his name on the College books, or to attend any of the academical duties of the University, unconnected with the School of Medicine and Surgery, unless he desire to obtain a Licence or Degree in Medicine, or a Licence or Degree in Surgery.

No Student can be admitted for the Winter Courses after November 25.

DEGREES AND LICENCES IN MEDICINE AND SURGERY.

The Act, 21 and 22 Vict., c. 99, recognises as qualifications for Medical and Surgical Practitioners, the Degrees and Licences in Medicine and Surgery granted by the University.

The Degrees are:—1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Master in Surgery.

UNIVERSITY DEGREES.

1. Bachelor in Medicine.—A Candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same Commencement as that at which he receives his Degree of B.A., or at any subsequent Commencement, provided the requisite Medical education shall have been completed.

The Medical education of a Bachelor in Medicine is of four years' duration, and comprises attendance on the following Courses of Lectures:—

COURSES OF SIX MONTHS' DURATION OR LONGER.

Anatomy and Physiology; Practical Anatomy, with Dissections; Surgery; Chemistry; Materia Medica and Pharmacy; Institutes of Medicine and Pathology; Practice of Medicine; Midwifery.

Clinical Lectures.—Attendance on Sir Patrick Dun's Hospital during nine months, with three consecutive Courses of Clinical Lectures, each of three months' duration. Also nine months' attendance on some General Hospital in Dublin, approved by the Board, in which Clinical Instruction in Medicine and Surgery is delivered.

COURSES OF THREE MONTHS' DURATION.

Botany.—In the first week of April, and continued during the months of May and June.

Practical Chemistry; Medical Jurisprudence.

Any of the above-named Courses may be attended at any Medical School in Dublin, recognised by the Provost and Senior Fellows; (and three of them, at the discretion of the Candidate, may be attended in the University of Edinburgh), provided the Candidate have kept an *Annus Medicus* in the School of Physic.

Total amount of fees for the Degree of M.B., £10.

2. Doctor in Medicine.—A Doctor in Medicine must be M.B. of at least three years' standing, or have been qualified to take the degree of M.B. for three years, and must perform exercises for the Degree before the Regius Professor of Physic in accordance with the Rules and Statutes of the University.

Total amount of fees for this Degree, £12.

3. Master in Surgery.—The Degree of Master in Surgery can only be obtained by Students who are Bachelors of Arts, and who have completed the Professional Curriculum and passed the Examinations required.

The Curriculum is the same as that for the Licentiate in Surgery, as given below, with the addition of one Session of nine months' attendance on an Hospital having at least twenty beds for cases of fever. A Special Certificate for such attendance will be required.

In addition to the subjects of Examination required for the Licentiate, Candidates for the Degree of Master in Surgery will be examined specially in the following subjects:—Comparative Anatomy; Medical and Surgical Pathology; Animal Chemistry; Ophthalmic Surgery.

Total amount of fees for the Degree of Ch. M., £10.

THE QUEEN'S UNIVERSITY IN IRELAND,

granting the Degree of M.D., is the centre or head of the Queen's Colleges of Belfast, Cork, and Galway, each of which possesses a Faculty of Medicine. The Curriculum of Medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Botany, Anatomy and Physiology, Practical Anatomy, Materia Medica and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Medical Jurisprudence. Candidates are required to attend also, during the first period, Practical Chemistry in a recognised Laboratory, and the Practice during six months of a Medico-Chirurgical Hospital, containing at least sixty beds, together with Clinical Lectures delivered therein: during the second period, three months' Practical Midwifery in a recognised Hospital with not less than thirty beds, or six months' Practical Midwifery in a recognised Hospital with fifteen beds; and eighteen months' Practice of a Medico-Chirurgical Hospital, containing at least sixty beds, and in which Clinical Instruction is delivered. At least one-third of the Courses of Medical Lectures must be attended in some one of the Queen's Colleges; the remainder may be taken at the option of the Candidate, in any University, College, or School recognised by the Senate of the Queen's University. Candidates are required before graduating to have also attended in one of the Colleges of the Queen's University, Lectures on Natural Philosophy, and on one Modern Language, and to have passed the Matriculation Examination. There are two University Examinations: one comprising the subjects of study in the first period, the other the subjects of the second period. Candidates may, if they prefer to do so, pass both these Examinations at the same time. The University Examinations are held twice in each year, in June and September. Further information will be found in the "Queen's University Calendar," or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RESPECTING THE EDUCATION, EXAMINATION, AND ADMISSION OF CANDIDATES FOR THE LICENTIATESHIP IN MEDICINE.

Candidates for the Licentiateship in Medicine are required to make application to the College for permission to be examined according to the form supplied by the Registrar.

Candidates are required to deposit with the Registrar a certificate of having lodged the Admission fee in the Bank of Ireland, to the credit of the College Fund.

Candidates are required to give proof of their having attained the age of twenty-one years, of having been engaged during a period of four years in the study of Medicine, at a School or Schools recognised by the College, and shall also produce evidence of having studied the following subjects, viz., Anatomy, Physiology, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica, and Botany, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, Midwifery, and of having attended a Medico-Chirurgical Hospital, in which regular courses of Clinical Lectures are delivered, together with Clinical Instruction for twenty-seven months, or such Hospital for eighteen months, with nine months' attendance on a Medical Hospital, and similar courses of Clinical Lectures and Clinical Instruction; the attendance in each case being for not more than nine months in any year,—namely, for six winter and three summer months, and the attendance on a Medico-Chirurgical Hospital and Medical Hospital not being taken out in the same year, and of having attended Practical Midwifery for six months.

Candidates who are not personally known to any Fellow of

the College are required to transmit testimonials of character from registered Physicians or Surgeons; testimonials from Physicians or Surgeons of public Hospitals or Infirmaries being preferred.

Students are recommended to divide their course of study into two periods of two years each; the first to comprise Anatomy and Physiology, Surgery, Chemistry, Botany, and Hospital attendance; the second to comprise Practice of Medicine, Materia Medica, Medical Jurisprudence, Midwifery, and Hospital attendance.

The Examination is divided into two parts:—

First Part.—Anatomy, Physiology, Botany, and Chemistry.

Second Part.—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery.

Students may be examined in the subjects of the first part at the termination of the first period of study; or in all the subjects of their education, on the completion of their Medical studies.

Candidates are required to have passed an Examination in the following subjects of preliminary education before the Board of Examiners of this College, previous to or within the first two years of their Professional studies; or to have passed, within the period specified, an Examination in General Education, held by some of the qualifying Bodies, or by some one of the National Education Bodies, approved by the College:—

English—Composition. Modern Languages—one French or German author, at the option of the Student. Greek—Homer's Iliad, First Book; or Xenophon's Anabasis, First Book; or Walker's Lucian, first twelve Dialogues; at the option of the Student. Latin—Virgil's Æneid, First and Second Books; or Sallust; or First Two Books of Cæsar, "De Bello Gallico," at the option of the Student. Mathematics—Euclid, First and Second Books. Arithmetic—to the end of Decimal Fractions.

Students in Arts, of one year's standing, of any University in the United Kingdom, requiring Examinations in the first year; Graduates or Licentiates in Medicine or Surgery of any University or College in Great Britain or Ireland, will be exempted from the Preliminary Examination.

The above regulations respecting Preliminary Examination, will not apply to Candidates who have commenced their Professional education previously to January 1, 1861.

Candidates qualified as follows are required to undergo the second part of the Professional Examination only, viz:—1. Graduates in Medicine of a University in the United Kingdom, or of any foreign University approved by the College. 2. Fellows, Members, or Licentiates of the Royal Colleges of Physicians of London or Edinburgh. 3. Graduates or Licentiates in Surgery.

Licence in Midwifery.—Members of the College who may desire to obtain the Licence in Midwifery will be required to undergo a special Examination and, if approved, will receive such Licence, and shall be distinguished as Practitioners in Midwifery in the authorised lists of the College.

Candidates for the Licence in Midwifery, who are not Members of the College, will be admitted to Examination for such Licence in Midwifery on the following qualifications:—The Degree or Licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom, together with a certificate of having attended a six months' Course of Lectures on Midwifery, with the attendance for six months at a recognised Lying-in Hospital, or of having attended Practical Midwifery for six months.

Fees for Licence and Examinations.—The fee for the Licence is £15 15s., which may be divided as follows, viz.:—For Examination at the termination of the first period of study, £5 5s. The Final Examination for the Licence, £10 10s. Fee for the Midwifery Diploma, £3 3s. Fee for the Preliminary Examination, 5s.

The Admission fee, with the exception of two guineas deducted to meet the expense of Examination, will be returned to any Candidate who may be rejected.

ROYAL COLLEGE OF SURGEONS, IRELAND.

President.—Thomas L. Mackery.
Vice-President.—William Colles.
Secretary of the College.—Edward Hutton.
Secretary of the Council.—James S. Hughes.
Registrar.—John Brennen.

COUNCIL.

Arthur Jacob.	Auley P. Banon.
William Hargrave.	Peter Shannon.
Robert Adams.	Rawdon Macnamara.
James Barker.	Hamilton Labatt.
John H. Power.	Josiah Smyly.
Philip Bevan.	Benj. G. McDowel.
Hans Irvine.	Maurice H. Collis.
Edward Hutton.	Edward Ledwich.
Robert Pentland.	William Jameson.
Samuel G. Wilmot.	

Court of Examiners.—R. G. H. Butcher, Jerome Morgan, M. H. Stapleton, B. W. Richardson, Edward A. Stoker, G. H. Porter, T. J. Tufnell.

Examiners in Midwifery.—Robert Johns, Edward Quinan, Henry Croly.

Fellows of the College are Members of the Corporation, and are admitted by examination. Letters Testimonial are granted to Licentiates, and a Diploma in Midwifery to Fellows and Licentiates educated and examined in that branch of Surgery.

Candidates for the Fellowship must be 25 years of age, and must give proof of liberal preliminary education and good conduct during Professional education. They are required to produce certificates of Surgical studies for six years (three of which must be for exercises in Dublin), and also of practice as House-Surgeon or Dresser in an Hospital; as well as certificates of attendance on Hospitals, Lectures, and Dissections, as required from Licentiates; with the addition of Botany, Comparative Anatomy, and Natural Philosophy. Fee, £26 5s.; if the Candidate be a Licentiate, £10 10s.

Candidates for Letters Testimonial are required to produce certificates of preliminary classical education, of four years' Professional study (three of them in Metropolitan Schools), also three years' attendance on Hospital Practice and Dissections. Fee, £21.

Candidates for the Midwifery Diploma must be Fellows or Licentiates of the College, are required to produce certificates of attendance on Midwifery Lectures and Practice, with proof of having attended thirty cases of Parturition.

Candidates for the Fellowship and Letters Testimonial are publicly examined on two separate days in Anatomy, Physiology, Surgery, Practice of Medicine, and Pharmacy. The Examiners are elected by a sworn jury, of the Council appointed by lot, Teachers being ineligible. Fellows and Licentiates of the College are qualified to practise as Surgeons in any part of the British dominions, and to be appointed Medical officers to the Army and Navy, public Hospitals, Infirmaries, Dispensaries, and Workhouses.

By a new Bye-law it is enacted that—"Certificates of attendance on Lectures and of the performance of Dissections shall be received from Professors and Lecturers in all Universities, Colleges, and recognised Schools, in Her Majesty's dominions, as qualifications for the Fellowship and Letters Testimonial of this College; and also certificates of attendance on all Hospitals recognised by the Council, where clinical instruction is given."

APOTHECARIES' HALL OF IRELAND.

Governor.—Jerome O'Flaherty, L.R.C.S.I.

Deputy-Governor.—John Betty, M.D.

The Court of Examiners.—Drs. Charles Holmes, John Evans, Charles Henry Leet, William Madden, sen., William Madden, jun., Robert Mulock, Henry P. Nolan, George B. Owens, John Shea, George Wyse, Mr. Thomas Collins, Mr. Christopher Shaw, Mr. John White.

Secretary.—Charles H. Leet, M.D.

REGULATIONS REGARDING THE EDUCATION AND EXAMINATION OF CANDIDATES FOR THE LICENCE TO PRACTISE AS AN APOTHECARY.

Candidates for the Licence of the Hall must undergo a Preliminary and a Professional Examination.

PRELIMINARY GENERAL EDUCATION AND EXAMINATION.

Candidates for the Certificate in Arts (or for the Certificate of Apprentice) will be examined in the following:—In Latin—the Cataline Conspiracy of Sallust, and the first three Books of the Æneid of Virgil; in Greek—the Gospel of St. John, and the first twenty Dialogues of Lucian, or the first two Books of Homer's Iliad; in French—Telemachus, or the History of Charles XII.; in Science—the first two Books of

Euclid, Algebra, inclusive of Simple Equations, and Arithmetic to the end of Decimals; and, in English—English History and Composition.

An Examination in Arts will be held in the Hall five times in the year, namely, upon the third Friday in April, in June, in August, in October, and in December, at the hour of two o'clock, p.m.

PROFESSIONAL EDUCATION AND EXAMINATION.

Candidates for the Licence to practise as an Apothecary must produce Certificates to the following effect:—

1. Of having passed the Preliminary Examination in Arts.

2. Of being twenty-one years of age, and of good moral character.

3. Indenture of Apprenticeship to a qualified Apothecary or a Certificate from an Apothecary of having been engaged at Practical Pharmacy for a period of three years subsequent to having passed the Examination in Arts.

4. Of having spent four years in Professional study.

5. Of having attended the following Courses, viz.:—Chemistry, during one winter session; Anatomy and Physiology, during two winter sessions; Demonstrations and Dissections, during two winter sessions; Botany and Natural History, during one summer session; Materia Medica and Therapeutics, during one summer session; Practical Chemistry (in a recognised Laboratory), during three months; Principles and Practice of Medicine, during one winter session; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery (attendance upon twenty cases); Surgery, during one winter session; Medical Jurisprudence, during one summer session; Instruction and proficiency in Vaccination.

6. Of having attended at a recognised Hospital or Hospitals in the United Kingdom, the Practice of Medicine and Clinical Lectures on Medicine during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery during one of the winter and one of the summer sessions.

The Examination for the Licence to practise as an Apothecary is divided into two parts.

The First.—Chemistry, Botany, Anatomy, Physiology, Materia Medica, Therapeutics, and Pharmacy.

The Second.—Medicine, Surgery (Principles of), Pathology, Midwifery, Forensic Medicine, and Hygiene.

The first of these Examinations may be undergone at the close of the second winter session, and after the Candidate has attended the Courses upon the several subjects named for this Examination, and the second or final not before the completion of the fourth winter session.

The Licence of the Apothecaries' Hall, Dublin, entitles its possessor to be Registered as a Medical Practitioner, under "the Medical Act, 1858," and to practise Medicine and Pharmacy in any part of Her Majesty's dominions.

The Governor and Court of Examiners meet at the Hall upon every Friday, where Candidates for the Licence to practise must attend at the hour of two o'clock, p.m.

Candidates for the Licence must lodge their testimonials, and enrol their names and address with the Clerk at the Hall, in Dublin, a week prior to the day of examination.

A rejected Candidate cannot be re-admitted to Examination until after the expiration of six months.

Candidates for the Certificate of Assistant to an Apothecary, in Compounding and Dispensing Medicine, must have completed at least three years of his Apprenticeship with an Apothecary, or have a certificate from an Apothecary of having been engaged at Practical Pharmacy for a period of three years, together with a certificate of good moral character.

The Examination of the intending Assistant will be restricted to Pharmacy, scientific and practical (inclusive of Hydrostatics as applied to Pharmacy,) and the history and character of Medicines, with their mode of preparation, combination, and doses.

An Examination of Apprentices is held at the Hall, in the first week in May annually, upon some subject of Medical Chemistry, which is announced by the Council at the commencement of the previous winter session, and a Prize of five guineas is awarded to the successful competitor.

In reference to the foregoing Education and Examinations, the Council observe that every candidate for the Preliminary Examination must have read all the books in the prescribed Course, and must undergo such examination in them as shall satisfactorily test his grammatical knowledge of the languages, his acquaintance with the working of the several problems and calculations, and his familiarity with the leading events of English History.

In each department, numerical values will be attached to the answers, and only Candidates who attain a certain proficiency will obtain "the Certificate in Arts."

This Examination will be conducted by printed papers, and the answers will be required in writing.

Every Candidate for "the Licence" must produce his certificate in Arts, his indenture, or certificate in Pharmacy duly attested, a copy of his baptismal registry, or other satisfactory evidence of his age, and certificates of having diligently attended the Curriculum laid down by the Council.

The Examination for "the Licence" consists of two parts. In the first part, the Candidate is required to recognise and describe samples of drugs and plants used in Medicine, and to indicate the chemical and physical means of distinguishing them; to enumerate and explain the Pharmaceutic preparations of the Pharmacopœia, with their uses and doses; to translate Latin Prescriptions correctly: and to answer questions in Human Anatomy, and in Vegetable and Animal Physiology.

This Examination will be partly written and partly oral.

In the second part, the Candidate, having passed the first part satisfactorily, must answer questions in the several departments of Practical Medicine, and demonstrate and define diseased structure and injuries from Pathological illustrations, and give also the appropriate treatment and the form of Prescription suitable in each case.

This Examination will be also partly written and partly oral.

Doctors of Medicine of any of the Universities in the United Kingdom, or Surgeons of any of the Royal Colleges of Surgeons, who have served an Apprenticeship or the required term at Practical Pharmacy to a qualified Apothecary, and who desire to obtain the Licence of the Hall, will be required to undergo an examination—the former in Pharmacy, and the latter in Medicine and Pharmacy; and in either case the Examination of the Candidate will be confined to one day's examination.

Notice.—"A Register of Medical Students" lies in the care of the Clerk at the Hall, and will be opened upon the first day of each Winter and Summer Session, and will remain open for fifteen days, for the entry of the names of Medical Students who have passed the Preliminary Examination in Arts, and who have entered upon their Professional studies; in order that their names may be returned in due time to the Medical Council, in accordance with the ordinance of the General Medical Council of Education on the 23rd June, 1860; (a) and all Students about being registered must produce the certificate in Arts and cards of admission to the Lectures or Hospitals to which they have entered.

(a) "That after October 1st, 1861, all Medical Students be required to be registered. That no Student beginning Professional study after September, 1861, be registered who has not passed an Arts' Examination. That the several Bodies in Schedule (A) of the Medical Act, either jointly or severally, open a Register for Students commencing their studies in Medicine. That the said Register be opened on the first day of each Session or Term, and remain open for fifteen days; and that within seven days after its close, the officer in charge transmit a duly authorised copy thereof to the Registrar of the Branch Council of that Division of the United Kingdom to which the Body or Bodies belong."—*Ordinance of "the General Council of Medical Education and Registration," 23rd June,* 1860.

THE DAYS AND HOURS OF THE INTRODUCTORY LECTURES

TO BE DELIVERED AT THE DIFFERENT MEDICAL SCHOOLS IN THE METROPOLIS.

	Days and Hours.	Lecturers.
Guy's Hospital..	.. Oct. 1, 2	Mr. Cooper Forster.
St. George's Hospital ..	,, 2	Mr. Prescott Hewett.
St. Mary's Hospital ..	,, 8	Dr. Sieveking.
Grosvenor-pl. S. of Med.	,, 3	Dr. Cholmeley.
Charing-cross Hospital	,, 3	Mr. Headland.
London Hospital ..	,, 3	Mr. Hutchinson.
King's College	,, 8	Mr. Fergusson.
University College ..	,, 3	Dr. Edwin Fox.
St. Bartholomew's Hosp.	,, 4	Dr. Martin.
St. Thomas's College ..	,, 2	Dr. Bristowe.
Middlesex Hospital ..	,, 8	Dr. Priestley.
Westminster Hospital ..	,, 8	Dr. Anstie.

TO CORRESPONDENTS.

We beg to return our best thanks to the Registrars and Secretaries of the various Universities, Colleges, and Schools, for their prompt replies to our Circular, and for the trouble they have taken in supplying the latest Regulations of the Institutions with which they are connected.

In order to confine the whole of this week's Number to information specially important to Students, we are compelled to defer answers to several Correspondents until next week.

Intelligence relating to "Provincial Schools," although in type, is unavoidably postponed until next week.

Medical Times and Gazette.

SATURDAY, SEPTEMBER 20.

ADDRESS TO MEDICAL STUDENTS ON THE SCOPE AND SPIRIT OF MEDICAL STUDY.

There are critical points in every man's life, in which a right choice or a wrong decides his whole future course for good or for evil. Amongst these is the choice of a profession. We are writing for young men who have already chosen Medicine, and who are now entering seriously upon the studies which shall qualify them to be useful to their fellow-citizens, and to earn a handsome fortune and respectable position for themselves. For young men so situated, we feel the warmest and most natural sympathy; for we ourselves have passed through long years of Professional study,—we have battled through the struggles of active Professional life,—and have watched with keen eyes the whole Professional history of our generation, whether it regard the state of the Profession as a mass, or the career of individual members. We have seen men of precocious brilliance in the Schools who have sunk into contented mediocrity in actual life,—some whose talents were universally admitted, and yet of whom the wonder has been that they "never got on;" and others who have attained the solid rewards of fame and fortune in spite of prognostications to the contrary. It will be not unprofitable if we offer a few remarks on the choice of methods of study;—on the mode of so passing through the Medical-Student period of life as to make it the forerunner of the greatest possible future usefulness and success.

We take for granted that the Medical Student of the present day has received the education and breeding of a gentleman. In nothing is this more shown than in the contempt which gentlemen feel for low pot-house pleasure of the Bob Sawyer sort. If young men had been bred at some mean, sour, strait-laced home, where all the innocent gaiety of youth were repressed, and every indulgence that persons of gentle blood are accustomed to were denied, or had passed years of apprenticeship in servile drudgery, there would be no wonder that the first moments of liberty should find them running riot, and seeking in low company and drink something of those social pleasures which they had been denied in their legitimate and innocent form. There is no doubt, however, both that most of the Bob Sawyer stories of the past generation were absurd exaggerations, and that whatever foundation in fact there may have ever been for them exists no longer. We are thankful to say that the tone to be adopted on this subject at the present day is one of hearty commendation.

Let us consider, then, the bent and character of Medical study in its influence on the character of the Medical Practitioner and his success.

A very slight observation may satisfy us that two sets of faculties exist in every man. Phrenologists call them the perceptive and the reflective; and, without being phrenologists, we may conveniently use these terms. The preponderance of one over the other set of faculties puts the most decided stamp on the character, and offers, in a broad kind of way, an explanation of some of the commonest differences between one man and another.

There is one well-marked class of men whose character is shrewdness, self-confidence, and quickness. They are no bookworms, and have nothing of the pale Student about them. They are the people whose eyes are open, who are always on the alert, who let nothing that passes escape them; above all, they are keen observers of human character. Mankind is their book. Instead of the dim cloister or the solitary nook in some library, they love the busiest haunts of men. They are the ready-witted people who "get on well" with everybody. They are the popular men, the men of observation and action, and they get on well in the world because they take the proper means to that end. Not but that this kind of character has some grievous defects if its peculiarities be not well balanced by those of another order. It is amongst men of this stamp that we find the shallow, egotistical, self-satisfied pretenders; the men, too, who have especial facility in "sucking brains," that is to say, in quickly extracting the pith of what some poor recluse may have been months in making out, and appropriating the credit to themselves. These are the burly well-to-do fellows, who are always boasting of their experience, but whose *forte* really lies in this, that they know human nature. If they know their Profession too, so much the better for their patients; but at any rate, they supply one thing which troubled human creatures want,—a strong will and strong head to rely upon.

The other class of men are the men of thought, the Students *par excellence*, the men who not only pick up knowledge by the use of their own senses, so much as by reading. Such men rightly consider that observation is in nowise prejudiced if made with full knowledge of previous researches. They are disgusted at the ignorant "discoveries" and "new methods of treatment" which are set forth by people unconscious that they may have been known for a century. They think that Medicine should be a learned Profession; and conceive that the Physician to be perfect in his vocation should possess that knowledge of human nature which is afforded by what is justly and emphatically called "classical literature." In classical literature they include the works of the masters of our own Profession, and disdaining the "ignorant present," delight to know how the phenomena of disease were interpreted by Hippocrates, or Galen, or Celsus, or Aretæus, and are not satisfied to know Sydenham, Boerhaave, Wiseman, Ambrose Paré, not to speak of Cullen and Hunter, only by hearing them quoted in Lectures. Such men are great readers. If they carry their predilections too far, they become very deep, but have no brilliancy,—very conscientious, but slow. They are apt to feel doubt—reasonable doubt—where more ignorant and less scrupulous persons feel none. But they show it. Hence they do not attract the confidence of patients. By trusting too much to reading on studies which can only be learned by observation and experiment, they are sure to get notions, not only vague, but erroneous. They "get up" Anatomy and Chemistry from books, in preference to working in the Dissecting-room and Laboratory; they prefer reading up descriptions of disease from "Manuals" to "going round" the wards of the Hospital; they can pass capital examinations *vivâ voce* or in writing, but are less happy if required to lay bare an artery, or diagnose a case at the bedside. They get any number of medals, especially in subjects such as Materia Medica, Forensic Medicine, and Physiology, which can be learned from books.

They constitute the thoughtful, conscientious, well-informed set of Practitioners, who are highly respected but not largely employed. Such men sometimes complain that the public cannot distinguish real merit, and that it neglects them in favour of ignorant and presumptuous rivals. But the truth

is, that the public does not prefer ignorance *per se*, but that it prefers an ignorant man, who is alert and self-confident and positive, to a learned man, whose learning is hidden by shyness, slowness, and want of resolution.

Now, we do not hesitate to say that the error against which the best and most conscientious Medical Students require to be guarded, is that of neglecting observation and experiment for reading and thinking. Into this error they have been led,—firstly, by a natural bent; secondly, by a conscientious desire to do their duty in studying hard,—and of modes of study reading seems the most obvious and the easiest; thirdly, by the pernicious though well-meant system of written examinations for prizes, which was first set on foot by University College; fourthly, by the want of moral courage in Anatomical Teachers, who might refuse, but do not, to give certificates of diligent dissection to men rarely seen in the Dissecting-room; and lastly, by the regulations of the Examining Boards, with their interminable string of Lectures, and with their unpractical *vivâ voce* or written system of examinations, which, as it has been notorious any time these thirty years, can be passed as well or better by the man who has "ground" or "read up," as by the man who has worked. Even now "Practical Chemistry" has but a secondary place in the syllabus of Lectures; it is generally delegated to a subordinate teacher, whilst the great man of the School confines himself to the theoretical department.

But the advice which we offer to the Student, and which we would make as impressive as possible, is this:—Whilst giving due cultivation to those literary studies which mark the gentleman, and without in the least neglecting reading, recollect that the practice of our Profession consists in rapidly taking cognizance of matters of fact, and in acting upon them. Whatever, therefore, gives facility in seeing, hearing, feeling, distinguishing,—whatever exercises eyes, ears, and fingers,—should take the first place; reading the second. And the practical exercise of the organs of sense and of the hands is not only a more thorough, but an infinitely easier mode of study. The adage—

> "Segnius irritant animos demissa per aurem
> Quam quæ sunt oculis subjecta fidelibus quæque,
> *Ipse sibi tradit spectator,*"

is true of nothing so much as of Medical study. One man will get a good specimen of a bone; he will work it up with the aid of "Ward," or "Holden," or "Gray;" then draw it from nature, verify the attachment of muscles and ligaments in the Dissecting-room, and compare it in the Museum with the homologous bone in other mammals. Another will seize every opportunity of working in the Laboratory, from washing out test-tubes upwards,—there is nothing which he refuses to do, or neglects to see. Others, on the contrary, prefer sitting in some quiet corner of the Library, or fagging through a certain number of pages of a book at night by a bright fire in their own rooms, when all the world is still. But of these two modes of study we may say this: not only will the man who sees and handles things learn, whilst the book-student does not, but he is cultivating that class of faculties which tends to make him successful in life, quite apart from the depth and reality of his Professional knowledge. He is acquiring that dexterity of manipulation, that readiness, that acquaintance with things which guards men against being taken unawares, and is forming the habits which will push him on in the world.

Anatomy and Chemistry are the very alphabet of Medicine, and should be cultivated thoroughly at first; Medicine, Surgery, and Midwifery come next, and each should be mastered in the same spirit. Listen respectfully to your Lecturer, and read diligently when no other duty interferes. But never flatter yourself that you have taken the best means of learning till you have examined, not merely models and diagrams in the Lecture-room, but the actual objects themselves, so far as the Dissecting-room, the Museum, the Laboratory, the Hospital wards, and the Out-patient rooms give you the opportunity. Lazy people always give themselves most trouble in the end. It may seem easier to take a book and read up a subject quietly by yourself; but in the first place it is not easier; and secondly, if it were, it would be no such preparation for Medical life, as the going to the Ward or the Museum, and there in broad daylight and with abundance of lookers-on, working out the facts by the aid of your own senses. Readers at night are apt to be great wasters of daylight.

As with Medical study, so with Medical life as a whole. Ours is no place for the solitary ascetic, no more than for the mere bookworm. Therefore we advise our Student not to live solitary in lodgings. Far better is it to enter a College, such as St. Bartholomew's, King's College, and University College, and better still to enter the family of some Medical man, where he can mix in general society. The habits of "Student life," so called,—the late hours, the slipshod attire, and sordid snugness of lodgings or chambers, form no fitting preparation for the life of one who never will be able to call a moment his own, but must hold himself at all hours at the beck and call of all comers. Next to a knowledge of the Profession, or even before it, the way to succeed in Medicine is to possess a knowledge of human nature. That is to be got by living in public; by incessantly mixing with your fellow-creatures, watching their peculiarities, imitating their excellences, avoiding their foibles, and behaving yourself with truthfulness, frankness, generosity, and plain dealing. Shy men do not get on well in the world, nor do absent men, nor people with a reserved and distracted air, nor slow, awkward men, nor people who hedge, and trim, and potter, and never give a plain answer to a plain question, and never seem able to form a positive opinion and stick to it. But the sovereign cure for all these infirmities is the course we recommend. Verify all facts by your own senses; never be a mere bookworm, and never prefer solitude to good society.

LIST OF PRIVATE TEACHERS IN LONDON.

Dr. Barron gives courses of Medical and Surgical tuition adapted to Students for Professional Examination, at his Class-room, 16, St. Thomas's-street East, Borough.

Mr. Christopher Heath will resume his Evening Course of Demonstrations and Examinations upon the Dissected Subject, at the Westminster Hospital, on Friday, October 3, at 7 p.m.

Mr. C. W. Heaton, Lecturer on Chemistry to Charing-cross Hospital, prepares pupils for the Examinations of the University of London, and other Examining Boards, both by class demonstrations and private lessons.

Samuel Highley, F.G.S., F.C.S., etc., "On the Use of the Microscope," at the Laboratory for Elementary Instruction in Science, 70, Dean-street, Soho. Evening class at Eight o'clock. Fee one guinea. Also on Mineralogy, Geology, Zoology, and on Photography in its application to Natural History and Pathology.

Mr. G. Hind, F.R.C.S., gives daily demonstrations and examinations at 29, Newman-street, Oxford-street.

The Drs. Power remove their Class-room on October 1, from Exeter Hall to the Junior Medical College, 32, Queen-square, Bloomsbury, W.C., at which place they will for the future conduct their general classes as before, and will on January 8, 1863, open their Junior College for all the purposes of Preliminary Medical Education before entering the Hospital Schools.

Mr. J. Sharman, F.R.C.S., Lecturer on Anatomy at the Grosvenor-place School. Address, Grosvenor-place School, Hyde Park, or Lower Norwood, S.

Dr. Steggall gives instructions to Medical Students in all the branches of their studies, at his residence, 2, Southampton-street, Bloomsbury-square.

Mr. Tuson continues his instructions and demonstrations in Anatomy, Physiology, Pathology, and Surgery, daily, at his residence, 6, Devonshire-street, Portland-place. The examinations and demonstrations are illustrated by recent dissections, models, and anatomical preparations.

TABLES

GIVING THE NAMES OF LECTURERS, HOURS OF LECTURE, DAYS OF ATTENDANCE, AND FEES IN THE METROPOLITAN MEDICAL SCHOOLS AND HOSPITALS.

LECTURES.	ST. BARTHOLOMEW'S.					CHARING CROSS.					ST. GEORGE'S.				
	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Fees. Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Fees. Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	Fees. 2 Courses	Fees. Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Black Dr. Kirkes	M. 2.30 Tu and Th 3.30	5 5	..	7 7	Dr. Chowne Dr. Willshire	M W F 2.30	4 4	6 6	7 7	Dr. Pitman	..	6 6	..	6 6
SURGERY	Mr. Lawrence Mr. Coote	M W F 3.30	5 5	..	7 7	Mr. Hancock	M W F 12.30	3 3	5 5	6 6	Mr. Tatum	..	4 4	..	6 6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Skey Mr. Holden	Tu W Th F 2.30	5 5	7 7	10 10	Mr. Canton	Daily 9	4 4	6 6	7 7	Mr. Pollock Mr. Holmes	..	6 6	..	8 8
ANATOMICAL DEMONSTRATIONS	Mr. Callender Mr. Smith	Daily 10½ till 2	3 3	5 5	..	Dr. Goldsbro'	Daily	2 2	4 4	4 4	Mr. Rouse Mr. Naylor	..	..	..	..
GENERAL ANATOMY AND PHYSIOLOGY	Mr. Savory	M Tu Th F 9.30	5 5	7 7	10 10	Dr. Salter	M Tu W Th F 3.30	4 4	6 6	7 7	Dr. Ogle	..	6 6	..	8 8
CHEMISTRY	Mr. Frankland	M F 10.30 W 10	5 5	..	7 7	Mr. Heaton	Tu Th S 10	5 5	6 6	7 7	Dr. Noad	..	6 6	..	8 8
NATURAL PHILOSOPHY ..	..	..	..	..	..	..	W Th F 11.15	3 3	..	..	..	..	..	..	..
HOSPITAL PRACTICE—															
Physicians	Dr. Burrows	M Tu Th S 1.30	12 12	18 18	26 5	Dr. Chowne Dr. Willshire	Daily 1	10 10 6 mths	15 15 12 mths	21 0	Dr. Page Dr. Pitman Dr. Fuller Dr. Barclay Dr. R. Lee, *obs.*	Daily 1	8 8 6 mths	16 16 1 year	25 4
	Dr. Farre	M W F 10													
	Dr. Jeaffreson	M W F S Th 1													
	Dr. Black	M Tu Th 1													
Assistant-Physicians ..	Dr. Kirkes	Tu F 11	..	..	..	Dr. H. Salter Dr. Headland	12 to 2	..	..	..	Dr. J Ogle Dr. Wadham	..	..	..	..
	Dr. Martin	M Th 11													
	Dr. Edwards	S 11													
	Dr. Harris	W 11													
Surgeons	Mr. Lawrence	Tu F S 1 30	15 15	21 0	26 5	Mr. Hancock Mr. Canton	Daily 1	10 10 6 mths	15 15 12 mths	21 0	Mr. Tatum Mr. Johnson Mr. P. Hewett Mr. G. Pollock	Daily 1	15 15 6 mths	21 0 1 year	42 0
	Mr. Skey	M Th 1 S 1.30													
	Mr. Wormald	M Th S 1.30													
	Mr. Paget	Tu F 1 S 1.30													
Assistant-Surgeons	Mr. Coote	W S 12				Mr. Hird Mr. Barwell	12 to 2	..	..	..	Mr. H. Lee Mr. Holmes	..	..	..	..
	Mr. Holden	M Th 12													
	Mr. Savory	F 12													
	Mr. Callender	Tu 12													
CLINICAL MEDICINE ..	Dr. Burrows Dr. Farre Dr. Black	Alt Tu 12 Alt W 9	..	..	..	By the Physicians	..	..	..	..	By the Physicians	..	..	..	..
CLINICAL SURGERY ..	Mr. Lawrence Mr. Skey Mr. Paget	Tu Th 1.30 S 9	..	..	..	By the Surgeons	..	..	..	..	By the Surgeons	..	..	..	..
DISEASES OF WOMEN ..	Dr. Greenhalgh	Alt W 9	..	..	..	..	..	..	..	..	..	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Andrews The Surgeons	12	..	..	..	..	..	..	..	..	Dr. Ogle Mr. Lee	..	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Farre	Tu W Th S 10	5 5	..	6 6	Dr. Steggall	M W F 9	3 3	5 5	6 6	Dr. Barclay	..	5 5	..	6 6
BOTANY	Dr. F. Harris	M W S 9	3 3	..	4 4	Mr. Syme	M W F 10	2 2	3 3	4 4	Mr. M. Masters	..	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. Martin	M F 10 Th 11	3 3	..	4 4	Mr. Hird Mr. Tuson	M W F 4	2 2	3 3	4 4	Dr. Fuller	..	3 3	..	4 4
MIDWIFERY	Dr. Greenhalgh	Tu W F S 8.30	5 5	..	6 6	Dr. Chowne	M W 3	3 3	5 5	6 6	Dr. R. Lee	..	5 5	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Frankland Mr. Attfield	M Tu Th F 10.15 to 1	2 2	..	3 3	Mr. Heaton	M W F 11	2 2	..	..	Dr. Noad	..	4 4	..	..
COMPARATIVE ANATOMY..	Mr. Callender	Tu F 2.30 *Summer*	2 2	..	3 3	Mr. Barwell	Tu Th S 3.30	3 3	..	4 4	Dr. Ogle, *with Physiology*	..	..	..	..
DRESSERSHIPS	..	..	12 12 3 mths	18 18 6 mths	26 5 1 year	..	..	..	..	..	..	..	..	..	..
DENTAL SURGERY	..	..	..	..	..	..	..	..	..	..	Mr. Vasey	..	1 1	..	..
OPERATIVE SURGERY ..	Mr. Callender Mr. Smith	..	2 2	..	..	..	..	..	..	..	Mr. Holmes	..	4 4	..	..
PRACTICAL PHARMACY ..	Mr. Wood	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Entrance to the Lectures and Hospital Practice for the Licences of the Col. of Phys. and Soc. of Apoth., and the M.R.C.S. Exam.	..	..	..	..	99 15	..	..	..	..	75 12	Compounding Fee ..	..	..	..	100 0 90 0
To the Lectures only	..	..	..	..	52 10	..	..	..	..	44 2	..	..	..	..	..

LECTURES.	GROSVENOR-PLACE SCHOOL, Adjoining St. George's Hospital.					GUY'S.					KING'S COLLEGE AND HOSPITAL.				
	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.	Lecturers.	Days and Hours.	Fees. 1 Course	2 Courses	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
PRINCIPLES AND PRACTICE OF MEDICINE	Dr. Leared Dr. Cholmeley	Tu W F 5	5 5	..	6 6	Dr. Owen Rees Dr. Gull	M W F 3 30	5 5	..	..	Dr. G. Johnson	Tu F 4 Th 5	7 7	..	7 7
SURGERY	Mr. Spencer Wells Mr. W. Adams	M W F 4	5 5	..	6 6	Mr. Hilton Mr. Birkett	Tu Th S 3.30	5 5	..	..	Mr. Fergusson	M W F 5	5 5	..	7 7
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Sharman	Daily exc. S 9	6 6	..	8 8	Mr. Poland Mr. Cooper Forster	M Tu Th F 9	5 5	..	..	Mr. Partridge	Daily 9	6 6	..	9 9
ANATOMICAL DEMONSTRATIONS	Mr. Sharman Mr. Lomas	Daily	..	..	..	Dr. W. Moxon Mr. Bankart Dr. Fagge	Daily	5 5	..	..	Mr. Wood *Ass.-Demonsts.* Mr. Sherwin Mr. Bellamy Mr. Cann Mr. Bell	..	..	..	..
GENERAL ANATOMY AND PHYSIOLOGY	Dr. Richardson	Tu W F 3	5 5	..	6 6	Dr. Pavy	Tu Th S 12.30	5 5	..	..	Dr. L. Beale	M W Th F 4	6 6	..	9 9
CHEMISTRY	Dr. Wood	Th F S 10	5 5	..	6 6	Dr. Alf. Taylor	Tu Th S 11	5 5	..	..	Dr. Miller Mr. Hadow *demonst.*	M W Th S 10.15	7 7	..	9 9
HOSPITAL PRACTICE—															
Physicians	..	..	..	..	..	Dr. Barlow Dr. Owen Rees Dr. Gull Dr. Oldham *obs.*	M F 1.30 M Th 1.30 W S 1.30 Tu Th 1.30	10 10 3 mths	15 15 6 mths	26 5	*In-patients*— Dr. Budd Dr. Johnson	M W F 1.30 Tu Th S 1.30	10 10 6 mths	15 15 18 mths	21 0
											Dr. Beale	Tu Th S 9			
											Out-patients— Dr. Guy Dr. Farre, *obs*	M W F 1 Tu Th S 12.30			
Assistant-Physicians ..	..	..	..	..	..	Dr. Habershon Dr. Wilks Dr. Pavy Dr. J. B. Hicks *obs.*	M 12 W 12 F 12 Th S 12 M 1.30	..	..	..	Dr. C. Evans Dr. A. Duffin Dr. E. S. Thompson Dr. Liveing Dr. Tanner *obs.* Dr. Meadows *obs.*	M W F 1 M W F 1 Tu Th S 1 Tu Th S 1 Tu Th S 12.30 Tu Th S 12.30	..	..	..
Surgeons	..	..	..	..	..	Mr. Cock Mr. Hilton Mr. Birkett Mr. Poland	M Th S 1.30 M Th 1.30 M F 1.30 W S 1.30	10 10 3 mths	15 15 6 mths	26 5	Mr. Fergusson Mr. Partridge	Tu Th S 1.30 M W F 1.30	15 15 6 mths	21 0 21 mths	26 5
Assistant-Surgeons	..	..	..	..	..	Mr. C. Forster Mr. Bryant Mr. A. Durham	S 12 M Th 12 W 12	..	..	..	Mr. Wood Mr. H. Smith Mr. Mason Mr. Watson	Tu Th S 1 M W F 1 M W F 1 Tu Th S 1	..	..	..
CLINICAL MEDICINE ..	..	..	..	..	..	Eye Wards *Winter*— Dr. Barlow Dr. O. Rees Dr. Gull	M Th 1.30 Weekly	..	..	..	Dr. Budd Dr. Johnson	Every alt. M 1.30 Every alt. Tu 1.30	..	..	..
						Summer— Dr. Habershon Dr. Wilks Dr. Pavy	Weekly				Dr. Beale	S 9			
CLINICAL SURGERY ..	..	..	..	..	..	*Winter*— Mr. Cock Mr. Hilton Mr. Birkett Mr. Poland	Weekly	..	..	..	Mr. Fergusson Mr. Partridge	Every alt. Th 1.30 Every alt. F 1 30	..	..	..
						Summer— Mr. C. Forster Mr. Bryant Mr. Durham	Weekly								
DISEASES OF WOMEN ..	..	..	..	..	..	Dr Oldham Dr. Hicks	Weekly	..	..	..	..	..	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. Richardson	..	..	..	..	Dr. Wilks	Daily 2.30 S 8.45 sum	..	..	..	Dr. Beale *with Phys.*	..	..	..	..
SUMMER SESSION.															
MATERIA MEDICA	Dr. Bainbridge Dr. Hawksley	..	3 3	..	4 4	Dr. Habershon	Tu Th S 3	4 4	..	..	Vacant	M W Th F 8	4 4	..	6 6
BOTANY	Dr. Bainbridge	..	3 3	..	4 4	Mr. Johnson	Tu Th S 11.30	4 4	..	..	Mr. Bentley	M Tu Th F 12.15	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. F. C. Webb	..	3 3	..	4 4	Dr. A. Taylor	Tu Th S 10	4 4	..	..	Dr. Guy	M Tu W F 3	3 3	..	4 4
MIDWIFERY	Dr. Bloxam Mr. Bloxam	..	3 3	..	4 4	Dr. Oldham	Tu W Th F 8.45 a.m.	5 5	..	..	Dr. A. Farre	M W Th F 9	6 6	..	6 6
PRACTICAL CHEMISTRY ..	Dr. Wood	..	3 3	..	..	Dr. Odling	M W F 10 to 1	4 4	..	..	Mr. C. L. Bloxam	Daily 10.15	4 4	..	8 8
COMPARATIVE ANATOMY ..	..	..	..	..	..	Dr. Pavy Dr. Moxon Dr. Fagge	Tu S 12.30 W 12 win.	4 4	..	..	Mr. R. Jones	M W F 12	3 3	..	4 4
NATURAL PHILOSOPHY ..															
OPERATIVE SURGERY ..	..	..	..	..	..	Mr. Bryant	M 3	..	..	..	..	..	..	..	..
DENTAL SURGERY	..	..	..	..	..	Mr. Salter	..	..	..	..	Mr. S. Cartwright	Tu F 9	6 6	..	8 8
PRACTICAL PHARMACY ..															
DEMONSTRATIONS IN CUTANEOUS DISEASES	..	..	..	..	..	Dr. Gull	Tu 2	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	..	..	..	..	..	Mr. Poland Dr. Bader	M 8.45 a.m.	..	..	..	..	..	..	..	..
TUTOR'S CLASS	..	..	..	..	..	..	..	..	..	..	..	Daily 5 win 9 sum.	3 3	..	..

Fee for Hospital Practice and Lectures, first year, £40; second year, £40; and £10 for each succeeding year.
A Perpetual Ticket, £100.

Fee for Lectures required by College and Hall 61 19
Ditto, including Hospital Practice and Matriculation 99 4

LECTURES.	LONDON.					ST. MARY'S.					MIDDLESEX.				
	Lecturers.	Days and Hours.	Fees. One Course.	Two Courses.	Perpetual.	Lecturers.	Days and Hours.	Fees. One Course.	Two Courses.	Perpetual.	Lecturers.	Days and Hours.	Fees. One Course.	Two Courses.	Perpetual.
WINTER SESSION.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.			£ s.	£ s.	£ s.
MEDICINE	Dr. Parker	Tu Th S 10.15	5 5	..	6 6	Dr Chambers Dr. Sibson	M W Th 4	4 4	..	6 6	Dr. Stewart Dr. Goodfellow	Tu Th S 9	6 6	..	6 6
SURGERY	Mr. Curling	M W F 3	5 5	..	6 6	Mr. Lane Mr. Spencer Smith	Tu F 4 W 3	4 4	..	6 6	Mr. Shaw	M W F 9	4 4	..	6 6
DESCRIPTIVE & SURGICAL ANATOMY	Mr. Adams	M Tu Th F 9.15	5 5	..	8 8	Mr. Gascoyen	M Tu Th F 2.45	6 6	..	8 8	Mr. Mooro	Daily ex. S 12	6 6	..	10 10
ANATOMICAL DEMONSTRATIONS	Mr. Couper Mr. Little	Daily 10.3	5 5	..	8 8	Mr. Norton Mr. Coombs	Daily	3 3	..	..	Dr. R. Liveing	Tu Th 3	4 4	..	6 6
PHYSIOLOGY	Dr. A. Clark	M Tu Th 4	4 4	..	6 6	Dr. Broadbent	M Tu Th F 9	6 6	..	8 8	Mr. de Morgan	M W F 4	4 4	..	6 6
CHEMISTRY	Dr. Letheby	M W F 10.30	7 7	..	7 7	Mr. F. Field	Tu Th S 10.15	5 5	..	7 7	Mr. T. Taylor Mr. Heisch	M W F S 11	6 6	..	8 8
HOSPITAL PRACTICE:															
Physicians	Dr. Little Dr. Fraser Dr. Davies Dr. Ramsbotham, *obs.*	Daily 8 or 1 Tu F 2	6 6 6 mths	11 11 12 mths	20 0	*In-patients—* Dr. Alderson Dr. Chambers Dr. Sibson *Out-patients—* Dr. H. Jones Dr. Sieveking Dr. Markham Dr. T. Smith, *obs.*	M Th 1.15 W S 1.15 Tu F 1.15 M Th 12.30 Tu F 12.30 W S 12.30 Tu S 1.30	7 7 6 mths	12 12 1 year	21 0	Dr. Stewart Dr. Goodfellow Dr. H. Thompson Dr. Priestley, *obs.*	Daily 1 W S 1	10 10 6 mths	16 16 18 mths	21 0
Assistant-Physicians	Dr. Parker Dr. A. Clark Dr. Ramskill Dr. Down Dr. Barnes, *obs.*	Daily 1 W and S 1	..	..	.	..	..	..	..	..	Dr. F. Weber Dr. Murchison Dr. Greenhow	..	..	..	..
Surgeons	Mr. Adams Mr. Curling Mr. Critchett	Daily 1	8 8 6 mths	18 18 18 mths	25 0 3 years	*In-patients—* Mr. Coulson Mr. Lane Mr. Ure *Out-patients—* Mr. S. Smith Mr. H. Walton Mr. J. Lane Mr. W. Cooper, *opht.* Mr. Toynbee, *aural*	W 1.30 S 1.45 Tu F 1.15 M Th 1.15 M Th 12.30 W S 12 30 Tu F 12 30 Tu S 1.30 M Th 1.30	9 9 6 mths	21 0 1 year	31 10	Mr. Shaw Mr. de Morgan Mr. Moore Mr. Henry Mr. Soelberg Wells, *opht.*	Daily 1 M W F 12.30	12 12 12 mths	18 18 3 years	21 0
Assistant-Surgeons	Mr. Hutchinson Mr. Maunder Mr. Couper Mr. Little	Daily 1	..	..	..	..	..	..	..	..	Mr. Nunn Mr. Hulke	..	..	..	..
CLINICAL MEDICINE	By the Physicians	..	..	..	..	Dr. Alderson Dr. Chambers Dr. Sibson	2cc a-week	..	..	..	The Physicians The Phys-Acc.	bi-wkly 3 M 10	..	..	..
CLINICAL SURGERY	By the Surgeons	..	..	..	..	Mr. Coulson Mr. Lane Mr. Ure	2cc a-week	..	..	..	The Surgeons The Oph-Surg.	bi-wkly 3 S 10	..	..	..
MORBID ANATOMY AND PATHOLOGY	Dr. A. Clark Mr. Maunder	2 p.m. 2.30 p.m.	..	..	..	Mr. Chisholm	..	..	..	..	Mr. Sibley Dr. Murchison	Tu Th 4	2 2	..	3 3
SUMMER SESSION.															
MATERIA MEDICA	Dr. H. Davies	Tu W F 9.15	3 3	..	4 4	Dr. Sieveking	Tu W Th F S a.m.	4 4	..	6 6	Dr. H. Thompson	M W F 9	3 3	..	5 5
BOTANY	Dr. Dresser	M W F 10	3 3	..	4 4	Dr. Dresser	M W F 12	3 3	..	4 4	Dr. T. S. Cobbold	M W F 2	3 3	..	4 4
FORENSIC MEDICINE	Dr. Ramsbotham	Daily exc. Sat 10.15	3 3	..	4 4	Dr. Sanderson	M W F 10	3 3	..	4 4	Mr. Henry Dr. Greenhow	Tu Th S 9	3 3	..	5 5
MIDWIFERY	Dr. Ramsbotham	M Tu Th F 3	4 4	..	6 6	Dr. Tyler Smith Dr. Graily Hewitt	Daily ex. S 9	4 4	..	6 6	Dr. Priestley	M W F 10	3 3	..	5 5
PRACTICAL CHEMISTRY	Dr. Letheby	M W F 11.15	2 2	..	..	Mr. F. Field	S 9—1	3 3	..	..	Mr. Taylor Mr. Heisch	M Tu W F 11.30	3 3	..	..
COMPARATIVE ANATOMY	Dr. L. Down	Th 9.15	2 2	..	..	Mr. S. G. Mivart	Tu Th 10	2 2	..	3 3	Dr. T. S. Cobbold	W F 4	2 2	..	3 3
OPHTHALMIC SURGERY	Mr. Critchett	M S 9.15	..	..	..	Mr. W. Cooper	Tu 2	2 2	..	..	Mr. Soelberg Wells	..	..	..	..
PRACTICAL HISTOLOGY	Dr. Clark	...	..	..	..	. ..	..	..	..	..	Dr. Woodham Webb	Tu Th 3 S Winter	10 10	..	..
OPERATIVE SURGERY	Mr. Maunder	..	..	..	..	Mr. J. Lane	..	..	..	..	Mr. Nunn	..	..	..	..
DENTAL SURGERY	Mr. Barrett	..	2 2	..	..	Mr. Sercombe	.	..	..	..	..	..	..	..	..
NATURAL PHILOSOPHY	..	..	..	..	..	Mr. G. R. Smalley	Th 2.45	2 2	..	3 3	..	..	..	..	..
AURAL SURGERY	..	..	..	..	..	Mr. Toynbee	Th 2.30	2 2	..	..	..	..	..	..	..
PUBLIC HEALTH	..	..	..	..	...	..	..	..	..	..	Dr. Greenhow	..	..	..	..
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CHEMISTRY	Dr. Beruays	Tu Th S 11	..	..	..	Dr. Williamson	Daily ex. S 11	6 0	..	9 0	Dr. Dupré	Tu Th 3 F 10.30	5 5	..	7 7
HOSPITAL PRACTICE—															
Physicians	Dr. Barker	..	..	..	..	Dr. Jeuner	Daily 1	..	..	..	Dr. Basham	M Th 1.30	8 8	12 12	21 0
	Dr. J. R. Bennett					Dr. Garrod					Dr. Fincham	W S 1.30	6 mths	1 year	
	Dr. Goolden										Dr. Radcliffe	Tu F 1.30			
	Dr. Peacock					Dr. Hare					Dr. F. Bird, *obs.*	Tu F 1.30			
						Dr. Reynolds									
	Dr. Bristowe					Dr. Murphy *obs.*	3 times a week								
	Dr. Brinton														
Assistant-Physicians ..	Dr. Clapton	..	..	..	..	..	..				Dr. Marcet	M Th 1	8 8	12 12	21 0
	Dr. Gervis, *obs.*										Dr. Anstie	Tu F 1	6 mths	1 year	..
Surgeons	Mr. South										Dr. Latham	W S 1			..
	Mr. Macmurdo					Mr. Quain	Daily 2				Mr. Holt	M Th 1.30			
	Mr. Solly					Mr. Erichsen					Mr. Brooke	Tu F 1.30			
	Mr. Le Gros Clark					Mr. Marshall					Mr. Holthouse	W S 1.30			
	Mr. Simon					Mr. W. Jones, *oph.*	M W F 1								
Assistant-Surgeons	Mr. S. Jones	..	..	..	..	Mr. H. Thompson	..				Mr. Hillman	M Th 1	..	..	..
						Mr. Streatfeild *oph.*					Mr. Power	W S 1			
											Mr. Heath	Tu F 1			
						Dr. Hillier, Med. Offi. to the Skin Infirmary	Once a week			26 5 or 36 15					
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	Dr. Bennett	W 2				Dr. Garrod									
	Dr. Goolden	W 2				Dr. Reynolds	Twice a wk. 1—3								
	Dr. Bristowe	W 2													
		Summer—													
	Dr. Peacock	M S 2													
	Dr. Brinton	M S 2													
CLINICAL SURGERY ..	By the Surgeons	F 2	..	..	..	Mr. Quain	Twice a week	..	..	..	By the Surgeons.	Weekly	..	.	..
						Mr. Erichsen	Once a week								
						Mr. W. Jones, *oph.*	Once a fortnight 1—3								
DISEASES OF WOMEN ..	Dr. Gervis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
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BOTANY	Dr. Clapton	M W F 3	..	..	..	Mr. Oliver	Daily exc. S 4	3 0	..	4 0	Mr. Syme	MWF11.30	3 3	..	4 4
FORENSIC MEDICINE ..	Dr. Stone	Tu Th 12 S 11	..	..	..	Dr. Harley	M Tu Th F 10	3 0	..	4 4	Dr. Fincham Dr. Anstie	M W F 3	3 3	..	4 4
MIDWIFERY	Dr. R. Barnes	M W Th F 1.15	..	..	..	Dr. Murphy	Daily exc. S 12	6 0	..	6 0	Dr. Bird	Tu Th F 4	4 4	..	5 5
PRACTICAL CHEMISTRY ..	Dr. Bernays	F 12 S 10-1	..	..	..	Dr. Williamson	Daily exc. S 11	4 0	..	..	Dr. Dupré	Tu Th 9.30 to 12	2 2	..	..
COMPARATIVE ANATOMY..	Mr. Ord	Tu Th 11	..	..	..	Dr. Grant, *with Zoology*	Daily exc. S 3 win.	8 0	..	9 0	Mr. Power	Tu F 9	2 2	..	..
OPERATIVE SURGERY ..	..	..	..	..	..	Mr. Marshall in April and May	Daily 7.30 a.m. 6 p.m.	5 5	..	7 7	..	..	..	..	..
DENTAL SURGERY	Mr. Elliott	Tu F 11	..	..	..	Mr. Ibbetson in January	Tu Th 6	1 1	..	..	Mr. Clendon	W 10 win.	2 2	..	..
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GENERAL PATHOLOGY ..	Mr. Simon	..	..	..	..	..	..	..	..	..	..	..	..	..	..
OPHTHALMIC SURGERY ..	..	..	..	..	..	Dr. W. Jones	Tu Th	2 0	..	..	..	..	..	..	..
PALÆO-ZOOLOGY	..	..	..	..	..	Dr. Grant	Daily ex. S 3 sum.	1 0	..	..	..	..	..	..	..
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ORIGINAL LECTURES.

NOTES OF A CLINICAL LECTURE ON

OPERATION IN SCIRRHOUS CANCER OF THE BREAST.

By Mr. PAGET, F.R.C.S.

The present Lecture was devoted to the consideration of the reasons for operating in mammary cancer, and the grounds on which to select appropriate cases.

Mr. Paget remarked that some recommend operation in nearly every case, and some will operate in none. Both have some truth in their arguments, both have much that is good in their practice, but it is possible to obtain the good of both sides without adopting the too general rule of either. There can be no doubt that the greatest measure of good may be done by making a careful selection of cases fit for operation and rejecting all the rest.

It is necessary to consider first what are the objections to the operation, and to —

1. The excision of the breast. They are chiefly, and almost alone, that the patient may die in consequence of it. Mr. Paget believed that in any large number of cases, even of those selected with some care, it may be feared that one patient in every ten will thus die, of pyæmia, or erysipelas, or tetanus, or secondary hæmorrhage, or some calamity following the operation. And this must be no trivial consideration, for in every such case the operation destroys in a week or two a life which, but for it, might have lasted as many years.

Nor, according to some, is this all: for it is said that when the disease returns after operation it makes so much more rapid progress than if it had been left alone, that the operation shortens the lives of even those whom it does not kill outright. It cannot, perhaps, be denied that this may be true of some cases in the selection of which no judgment is exercised; but, on the whole, taking the results of some hundreds of cases, it is certain that the average duration of life in those operated on is not less than in those in whom the disease runs its course: rather, in well selected cases it will be found always greater. In a recent tabulation of Hospital and private cases, 85 cases operated on lived an average of 55·6 months, and 62 cases not operated on lived an average of 43 months. And some such proportion as this will probably be always found.

It has been objected, too, that the recurrent disease, even if not more rapidly fatal than the uninterrupted disease would be, is more painful. But this is certainly not generally true. In very many cases—in the large majority—the recurrent disease is much less severe than the continued disease would, in the same time, have become; it is only in a very few that we can fairly expect it to be worse. It can scarcely be urged that the pain of the operation or of its consequences is an objection; for, with chloroform, the pain of the one is null, and, with simple dressing, that of the other is really trivial. It may, therefore, be safely held, that the only material objection (but it is a very serious one) to the operation is, that a patient runs a risk of 1 in 10 of dying from it; in other words, it is only about 9 to 1 that she will recover from the effects of the operation.

What, then, does the operation offer that can make it advisable for a patient to incur this risk of dying? Does it offer to anyone a reasonable hope of an indefinite prolongation of life, and freedom from the same disease? No; the recurrence of cancer of the breast after operation may be held to be as certain as anything in Surgery. The question is thus narrowed; we must in every case expect the recurrence of disease; and this is likely to occur at such a time after the operation that, speaking generally, and on the average, the patient will not rarely die of cancer nearly as soon after the operation as if the disease had been left to its own course.

Can it, therefore, be reasonable to submit a patient to the risk of dying within a month, perhaps in a week, for the sake of that interval of health which will or may exist between the operation and the recurrence of the disease, and for a good probability of adding a year to life, and of having a less severe disease? The answer must depend, chiefly, on the probable length of this interval before the recurrence. The average is little more than thirteen months; more than one-half return within twelve months; about two-fifths return within six months. Is this average worth the average risk of life? Consider, when no operation is performed, the pain and anxiety,—the pain likely to increase daily,—the misery of waking every day to the consciousness of an incurable disease; the sometimes loathsomeness; the restlessness for cure;—cure, such as there are never wanting dishonest men to promise. The average expectation of such relief seems worth the average risk, but not more. Look well, therefore, to the general condition of patients before deciding.

The average interval between the operation and the return of disease is, as has been said, about thirteen to fourteen months; but the extremes, between which the average is drawn, are very wide apart. In some cases the return may be within three months; in some not for ten, twelve, or more years.

It is, therefore, of great importance to be able to decide in what cases the risk of life is greater, and in what the probability of speedy return of the disease is greater, than the average.

For the first, there are no other rules for cancer than for other cases requiring large operations. These are some of the "doubly hazardous":—The old, after 60; the very large-breasted; the fat and plethoric; the cachectic; the overfed on animal food; the drunkards; the gouty; the habitually bronchitic; the albuminurious; the very dejected, not merely timid; and, in short, those with any organic disease of internal organs; and, after middle age, these increase very much in their proportion.

And for the probabilities of rapid recurrence, these are "bad cases." Acute cancers, *i.e.* all that have been rapid in progress; for those which increase very quickly before the operation, are certain to recur quickly after it. This, however, may be no sufficient objection, for great pain may often be saved by its performance. Mr. Paget said that he remembered such a case in a lady, whose breast he removed when she was five months advanced in pregnancy. She recovered well from the operation, and the benefit procured by its performance was very great; she went to her full term, bore her child, and was able to suckle it for a year before she died, with her most anxious wish fulfilled in comparative comfort.

Another condition unfavourable to operation is a brawny skin with firm œdema and wide open hair-follicles, or wide adhesion of skin; so is that in which the skin is extensively cancerous, or where there are little scattered tubercles of cancer in the glands and skin; or where there is considerable affection of the lymph-glands in the axilla, especially *numerous* diseased glands. A moderate amount, however, of lymphatic disease is no serious obstacle to an operation. But supra-clavicular disease should be an almost absolute bar against it.

Mr. Paget here adverted to the best manner of detecting cancerous lymphatic disease in this situation, and said that in cases where it is impossible to make out satisfactorily, by touch, the presence of enlarged glands, a difference of outline may be often seen by bringing the eyes to the same level with the part, and comparing the two sides; an uplifting of the integuments being often caused by the presence of swollen glands too deep or small to be felt.

Cases in which cancer attacks the upper half of the breast are generally bad; and those in which the lower part of the gland is affected are among the best. Cancer simultaneously affecting both breasts, is seldom or never to be operated on, for the risk is greater, and the advantage not greater.

There are, again, certain cases in which an operation is needless: such are the very chronic—where the breast is small, shrivelled, knotty, and sunk down on the pectoral muscle. Patients with disease of this kind will live many years probably, with no increase of trouble, and with but little inconvenience.

Mr. Paget concluded this part of the subject by summing up the advantages on each side, and said that the statements which he had made were taken from general averages, and that from such alone could any general conclusions be drawn. To deal with single cases is but a sort of surgical gambling. One man will tell of a case where no operation was performed, and the patient lived for twenty years; and another will tell of a life prolonged for almost the same time after operation; each statement quite true, but neither of them of any useful application. To reckon from such cases is mere

gambling; and, as in gambling of other kinds, the best luck at first brings the worst grief at last.

In a second Lecture on this subject, Mr. Paget proceeded to consider the treatment of cancer of the breast with caustics. This method of extirpation may be regarded as supplemental to excision. There is at the present time a patient in Sitwell Ward who is being treated in this way, and whose case gave occasion to these and the foregoing remarks. To state what may be a guide to the choice of cases for employing this rather than excision:—the objection to cutting is the risk to life. This risk is with caustics less. It is often said to be none, but this is an error. Death sometimes happens not by pyæmia or any such malady, but through severity of suffering, hæmorrhage, too great exhaustion, etc. Mr. Paget said he had known three cases in one special Practitioner's hands, of death in a month or little more from the commencement, and through the effects, of this treatment. But say the risk to life is only half that of cutting; why not, for this advantage, always choose caustics? These are the objections:—The treatment is fearfully painful. The means of alleviation are very insufficient. It may be mitigated, indeed, by opiates or injection of morphia beneath the skin, but not materially. In neuralgic patients, especially, the pain is utterly intolerable; but cutting not more dangerous than in the average. A second objection is the danger of incompleteness, through loss of health, or local inflammation, making the rate of progress of the cancer greater than that of the destruction by the caustic, or through leaving an open, inflamed, and, consequently, worse form of cancer.

There is the danger, also, of irritating the lymph-glands, and so making them more liable to be affected by cancer; and there is the danger of very rapid return even after complete removal of the primary tumour. It has, indeed, been said by those who pretend to cure cancer thoroughly by this method, that no recurrence takes place; than which nothing can be more false. There are no reliable statistics to decide the rate of return, but it is certainly not less, and is, probably, more rapid than that after excision; from some of the gland, in which the disease will most probably return, being left—and left not uninjured after the inflammation, etc., which has been set up in the neighbouring tissues.

These are, altogether, such serious objections, that caustics are very rarely to be preferred to excision, except in some of those cases in which, as enumerated in the last Lecture, excision would be attended with much more than the average risk of life; for the constitutional maladies which greatly increase the risk of cutting do not, except very rarely, increase the risk of caustics. Many local conditions forbid the use of caustics,—as a very large cancer, a decidedly acute one (for this will almost certainly run ahead), a very widely-affected skin, general œdema of skin, scattered tubercles, nearly all degrees of disease of glands, all supra-clavicular disease, wide-spread ulceration, etc. But these are left as more fit for caustics than for cutting,—many of the small cancers, especially in the unhealthy or diseased, many of the recurrent, the exuberant, some of the ulcerated, some of the adherent.

In conclusion, Mr. Paget said he believed, that by selecting with care, on the one hand, cases for excision, refusing those in which the operation would be attended with more than a proper share of danger; and, on the other, by using caustics where, from their smaller risk, etc., they would be more appropriate, the life of a large number of those who suffer from cancer may be considerably prolonged, and more even than any present statistics would show.

Dr. Rutherford Haldane, F.R.C.P., Lecturer on Pathology, has been elected Lecturer on the Practice of Physic at the Medical School at Surgeons' Hall, Edinburgh, in room of Dr. W. T. Gairdner, recently appointed to the chair of the Practice of Medicine in the University of Glasgow.

Medical Officer of Health for Lambeth.—Dr. Puckle, of Denmark-hill, was elected the Medical Officer of Health for Lambeth on the 18th inst., at a salary of £200 per annum, in the place of Dr. Odling, Professor of Practical Chemistry in Guy's Hospital, resigned. The candidates for the office were very numerous. The following was the result of the first voting:—For Dr. Puckle, 45 votes; Dr. Ladd, 39; Mr. Mitchell, 30; Dr. Shea, 24. At the final voting the numbers were—For Dr. Puckle, 49 votes; Dr. Ladd, 42.

ORIGINAL COMMUNICATIONS.

THE CAUSES AND TREATMENT OF ERYSIPELAS.

By Mr. CHARLES DAVID DOIG.

In the following observations it is my intention to illustrate some points in the pathology and treatment of erysipelas. The following data afford instructive information as to the frequency with which the disease is met under some circumstances. During the year 1852, out of 1000 cases attended by me in what is called the out-door practice of the Leith Hospital, 30 were erysipelas. The patients are those residents of Leith who are unable to pay for medicines and attendance, and they are visited at their own houses by the Resident Surgeon of the establishment. The accompanying figures, from which the above fact was taken, give some idea of the frequency of erysipelas in comparison with other diseases, as they came under my notice during the year 1852:—

Analysis of the Out-Door Dispensary Practice during the Year 1852.

1.	Fevers (febricula, continued, typhus, relapsing, etc.)	360
2.	Rubeola	82
3.	Scarlatina	44
4.	Erysipelas	30
5.	Inflammation of the lungs (bronchitis, pneumonia, pleurisy, etc.)	68
6.	Phthisis pulmonalis	16
7.	Pertussis	9
8.	Diseases of the heart	9
9.	Cholera	21
10.	Diarrhœa	44
11.	Peritonitis and dysentery	14
12.	Other diseases of the digestive system	53
13.	Uterine diseases	15
14.	Rheumatism (acute, sub-acute, and chronic)	29
15.	Tubercular meningitis	7
16.	Diseases of the nervous system (concussion, paralysis, epilepsy, mania)	23
17.	Syphilitic diseases	18
18.	Ophthalmic diseases	12
19.	Inflamed joints (knee and shoulder)	4
20.	Cutaneous diseases (urticaria, etc.)	9
21.	Inflammation of the mamma	10
22.	Dislocations	3
23.	Other diseases (carbuncles, abscesses, glossitis, etc.)	120
		1000

Additional light is thrown on this topic by the statistics of other public charities. During the year 1851 there occurred 82 cases of erysipelas amongst 7640 Dispensary patients of the West Richmond-street Dispensary, Edinburgh. At the same institution, during 1855, there were 75 erysipelas cases amongst 8624 recipients of aid. The following figures specify the distribution of these cases over the different months of the year; from which it appears that the disease is rather more prevalent during the months of October, November, December, January, February, and March, than during the other six months of the year; and that April and September are the months which are most exempt:—

Year.	Jan.	Feb.	Mar.	Apl.	May.	June.	Jly.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1851 ..	9	6	7	4	4	5	5	9	6	8	8	11	82
1855 ..	9	10	7	5	8	6	5	4	2	8	7	4	75
	18	16	14	9	12	11	10	13	8	16	15	15	157

During the year 1848-9, 58 cases of erysipelas were treated in the wards of the Royal Infirmary of Edinburgh, of which 26 were males and 32 females—a decided preponderance of females as compared with males, and consequently indicating a greater susceptibility to the disease in females than in males. The average residence in Hospital, of 58 cases, was 23 days. Of the 26 males 21 were cured, and 5 died. Of the 32 females 29 were cured, 2 died, and 1 was relieved, thus showing a less intensity of the disease amongst women than amongst men. At Guy's Hospital during 1854, 26 cases of erysipelas and phlegmon were treated with a result of 21 cures, 2 deaths, and 3 relieved. At St. George's Hospital, London, 30 cases were admitted during 1854, of whom 3 died. During four years 94

cases were admitted into the same Hospital, and the per-centage of mortality was 14·9.

The mortality of the disease in Hospital practice is rendered more explicit when the data are arranged in a tabular form:—

Institution.	Year of Report.	No. of Cases.	Result. Cures.	Dths.	Rlvd.	
Royal Infirmary, Edinburgh	1848-49	58	50	7	1	McDougal.
Guy's Hospital, London	1854	26	21	2	3	J. C. Steele.
St. George's Hospital, London	1854	30	27	3	0	Barclay.
Total.....		114	98	12	4	

It requires some stretch of imagination to admit that the classic nomenclature, Erysipelas, is associated with any peculiar feature of the disease. The term appears to be derived from two Greek words (ερυω I draw, and πελας near). The vulgar names are more felicitous. It is called the Rose, from the tint of colour assumed by the affected part. The diseased surface is red at the outset, and in severe phlegmonous cases white during the subsidence of the attack. Another name by which it is known is St. Anthony's Fire.

In detailing the following cases, I have only entered into particulars so far as they appeared to me to relate to Surgical practice:—

Case 1.—A young lady, aged 13, of full habit of body, whose digestive system was easily deranged by any heavy article of diet, was attacked with erysipelas of the face, which in most respects followed the ordinary course of the disease in that region of the body. The tumefaction of the face and eyelids so altered the countenance of the individual that it was difficult to recognize her. She was put on low diet. The treatment was otherwise exceedingly simple, consisting internally of a purgative, followed by saline diaphoretics, and locally of a warm solution of lead and opium. She made a good recovery.

Case 2.—A female, about 40 years of age, pregnant, within a month of the time of delivery, was seized on December 1, 1858, with rigors and headache followed by general fever, and accompanied by redness, pain, heat, and swelling of the face. The digestive system was disordered. She complained of thirst and loss of appetite; the tongue was white, and the bowels constipated. In three weeks she was restored to health, the fever having in the interim subsided, the local symptoms having disappeared, and having been followed by desquamation. Shortly afterwards she was delivered of a child, the presentation being cephalic. This patient was of sound constitution. She was put on low diet. The internal remedies prescribed for her were simple, mild aperients, formed by a combination of calomel, rhubarb, and jalap, followed by a febrifuge sudorific, containing spirit of nitric ether, ipecacuanha wine, acetate of ammonia, and camphor mixture. The only local treatment adopted was the application of olive oil to the face.

Case 3.—An adult, advanced in life, residing in one of the Leith Closes, of a debilitated habit of body, placed himself under my care in consequence of erysipelas of the face, and recovered. This individual was placed on mild diet; the treatment otherwise consisted essentially in the exhibition of aperients and tincture of the muriate of iron internally, and in anointing the face with olive oil.

Case 4.—A young man, aged 20, who had been attending a patient suffering from idiopathic erysipelas, and who was rather fatigued from want of rest, was seized with a feeling of languor, and subsequently with pain in the foot, which continued to increase in intensity, and was soon attended by the other local symptoms of erysipelas of the foot, along with general fever, disordered digestive system, headache, and delirium. The circumstance that appeared to determine the inflammation to the foot was wearing a shoe with the tie crossing the dorsum of the foot and causing pain. The patient recovered in a month, convalescence having been retarded by a relapse consequent on walking about too soon. The essential part of the treatment in this case was rest in the horizontal position, and incising the dorsum of the foot to give exit to some purulent matter.

Case 5.—A gentleman of temperate habits, about 25 years of age, but temporarily debilitated, was seized with erysipelas of the foot. The exciting cause in this instance seemed to be friction from wearing too large a boot. Rest in the horizontal position, and mild diet were the essential points of treatment, a purgative and a few doses of citrate of potash the adjuvants.

Case 6.—A gentleman, 39 years of age, of temperate habits though not of the strongest constitution, by the nature of his occupation exposed to heat and cold, on December 9, 1858, accidentally placed his foot on a rusty nail, which penetrated the instep to the depth of an inch. He bore evidence of having previously met with severe injuries, as fracture of the bones of the nose and also of the clavicle. In spite of the pain that he experienced, he continued at his usual avocation until the aggravation of the pain rendered it imperative that he should give up work and take to bed. By the eighth day from the infliction of the injury he was seriously ill. The foot and lower part of the leg were swollen, red, and painful. The digestive system was deranged, and he was in a state of general febrile excitement of an asthenic character.

In the first instance the foot was carefully examined for some foreign substance; this not being found, an incision was made in the seat of injury, which gave exit to a few drops of pus. An active purge was then prescribed, along with warm fomentations of lead and opium to the limb.

On the 18th he was in a state of extreme danger; the inflammation had extended to a little above the groin. Up to the knee-joint the girth of the leg was twice as large as that of the sound limb, in consequence of the amount of effusion. In the lower part of the leg the pain had subsided, and was followed by a feeling of numbness. There was redness, extreme tension, and blisters on the leg; near the ankle the textures were more seriously implicated than in any other portion of the limb; the parts here appeared verging to gangrene. Involuntary spasms, which had appeared at the outset, though to a slight degree, were now incessant, and continued more or less for at least six weeks. There was very considerable effusion around the knee-joint in addition to the pain and redness. Along the direction of the sartorius muscle there was more pain and swelling than in any other portion of the thigh. The most striking symptoms of constitutional disorder were thirst, disinclination for food, brown furred tongue, frequent feeble pulse, restlessness, and delirium.

There appeared to be sufficient indications for active treatment, accordingly I made two incisions near the ankle where the tension was greatest and the texture most implicated. The one was fully three inches and a-half in length, the other not quite so long. No pus came away, but hæmorrhage was so considerable that torsion was necessary to arrest the bleeding from two small arterial twigs, as the debilitated condition of the patient contra-indicated any further loss of the vital fluid than could be avoided. Two incisions were subsequently made on the dorsum of the foot, and two on the inner side of the knee-joint to evacuate purulent matter. In the latter locality there was also considerable disintegrated cellular tissue.

On the 30th it was necessary to make an incision in the direction of the sartorius muscle, about midway in its course, to let out a quantity of purulent matter and broken-down tissue. This purulent deposit had formed, although the part had been early painted over with a strong solution of nitrate of silver. Fully three ounces of pus were evacuated at this spot over the sartorius muscle. At this date, December 30, the condition of the patient is very much as follows:—A bed-sore on the sacrum, three inches by two; another bed-sore over the left trochanter, two inches by one; an incision one inch in length about the middle of the left thigh over the sartorius, communicating with a sinus nine inches long, and running in the direction of that muscle. A small incision, and a larger, more anterior one, one and a-half inches long, both on the inner side of the knee-joint, and communicating with a sinus four inches by three. The swelling of the limb much reduced. An ulcer, four inches long by three-quarters broad, formed in the seat of incision through the sloughy texture of the outer left ankle; this communicates with another ulcer rather more in front, three inches by one and a-half in extent, also posteriorly with a sinus, nine inches long, in the direction of the gastrocnemius, having an opening about the middle of the calf of the leg, partly formed by ulceration, partly by the knife. Another small ulcer near the outer ankle, two on the dorsum of the foot, one on the sole of the foot.

January 2, 1859.—The patient still continues to suffer from the suppurative fever, the three stages being well marked, cold rigors, general fever, and sweatings. Some days he is bathed in perspiration. Some of the leading points of the treatment have been already considered, others deserve notice, and shall be briefly narrated. Quinine has been prescribed

in doses of gr. iij. thrice a-day. At the same time tincture of iron was administered in thirty minim doses thrice a-day to the amount of six drachms. Occasional alterative doses of calomel and opium have also been exhibited to correct the secretions, but not in sufficient quantity to produce salivation. Aperients have not been neglected. Laudanum and morphia have been freely administered to calm the irritability of the nervous system, and to procure sleep. Some nights he has taken as much as three drachms of laudanum. While the bed-sores were in an incipient state, there being merely cutaneous redness, the application of creosote wash (one to eighty of water) appeared beneficial in retarding the formation of a sore; the ordinary poultice was used to aid the separation of the slough. The following is the treatment ordered at this date:—Nourishing diet, wine; poultices to the bed-sores, to the abscess over the sartorius, and to an ulcer at the ankle; water-dressing to the knee-joint and dorsum of the foot; strapping to the long ulcer at the ankle-joint and to the sinuses. ℞. Sulphate of quinine ʒss., dilute sulphuric acid ʒss., compound tincture of cardamoms an ounce and a-half, water six ounces; half an ounce to be taken three times a-day.

12th.—Improvement has been slowly advancing. Tincture of the muriate of iron ʒj., tincture of ginger ʒiij., infusion of quassia, ʒxx. One ounce to be taken three times a day.

March 2.—He has been able to get his clothes on for the first time since he took to bed in December. He is still in a state of great debility. Under the use of nutritious diet, wine and tonics internally, poultices, water-dressing, the application of stimulant astringent lotions (spirit lotion, zinc lotion, and copper lotion), the support of strapping and bandages, sloughs have separated, sinuses healed up, and ulcers skinned over. Touching exuberant granulations with solid nitrate of silver has materially aided the healing process. In consequence of debility and the tender condition of the injured parts, it was the month of April before he could go out. Local bathing with cold water has tended to invigorate the limb. His perfect recovery has, however, been retarded by an attack of urticaria, in which the cutaneous eruption was attended by gastro-pulmonary symptoms of considerable severity. The face was puffy, the breathing difficult, and there was copious watery expectoration having a frothy top. The attack appeared to have been accidentally excited by the combination of iron treacle and senna. He recovered in a few days, having taken a sharp purgative to clear out the intestinal canal.

July 10th.—He has, during the last six weeks, been suffering from chronic eczema rubrum of the left leg. The skin covered by a furfuraceous pellicle, parts of the leg cracked and fissured, excoriated spots exuding serum and surrounded by a red margin, and numbers of small vesicles containing serum, formed the most striking appearances of the disease. The application of a poultice was efficacious in removing the scurf and relieving the itching. The itching was, however, more effectually abated by a solution of tannin (tannin ʒj., aquæ ʒvj.) which possessed the additional advantage of checking the serous discharge.

In course of time the eruption entirely vanished. On its reappearance in a milder form, the application of warm bran-water had a similar salutary effect, subduing the redness, itching, and heat of the limb, the crop of vesicles at the same time disappearing. His bowels were regulated with tonic aperients.

In the month of October this man had a very severe attack of eczema rubrum of low type, which yielded satisfactorily under the local use of tannin solution (ʒij. tannin to ʒvj. of water).

Case 7.—A party of men engaged at the end of the Leith Pier in driving piles into the ground, to extend the pier seawards, overbalanced the apparatus with which they were working, and were precipitated amongst the stones. J. B., aged 30, residing in Edinburgh, a native of Cavan, was stunned by the fall, and brought to the Leith Hospital on May 15, 1851. On examination, he had sustained a considerable bruise, a lacerated wound on the right eyebrow, and a similar one on the left eyebrow. In addition to these minor injuries, a large portion of the scalp was torn off the posterior part of the head,—a transverse wound extending across the vertex. The head was shaved, the flaps washed, replaced, and retained in position by adhesive plaster and a bandage. On the following day he had rigors, headache, general soreness, and thirst, which proved to be the premonitory symptoms of erysipelas of the scalp, from which he soon recovered.

Case 8.—A boy, about 14 years of age, while engaged in cleaning windows, lost his balance and fell to the ground two stories and an area flat. The concussion following the accident was slight. He had sustained several bruises and an extensive scalp wound. The hair was shaved off, and the parts brought into contact, and retained by adhesive plaster. An abscess formed below the flap, and erysipelas of the head made its appearance. The dressings were removed, the matter evacuated, and the erysipelas subsided. The only treatment to which the boy was subjected was low diet and a purgative.

Remarks.—The symptoms of erysipelas are so apparent that it is hardly possible to mistake the disease. It consists essentially in inflammation of the skin and subjacent cellular membrane, preceded and accompanied by constitutional disturbance. The local effects of the inflammation are effusion of serum and lymph, formation of pus, and sloughing of tissue. The general indications of erysipelas are not different from those attending the other exanthemata with which the idiopathic form of the disease may be classed. They include general *malaise*, chilliness, rigors, loss of appetite, thirst, and general fever. In some cases there are headache, delirium, and coma; the last is a dangerous symptom. Locally there are heat, pain, redness, and swelling. The red blush of erysipelas is readily distinguished from the circumscribed oval spots of erythema. Sometimes it is erratic in type. Under some conditions the disease appears to be contagious. It may be the means of exciting puerperal peritonitis, or be excited by that disease. By some pathologists erysipelas has been etiologically associated with gout, rheumatism, and purpura. In one of the cases detailed its sequlæ were urticaria and eczema. Erysipelas may also occur as the sequla of typhus. At the Royal Infirmary of Edinburgh during the year extending from October 1, 1848, to October 1, 1849, among 363 cases of fever 10 were complicated with erysipelas.

It is common in overcrowded Hospitals where the air is of necessity foul, and its occurrence is favoured by a cold, moist, changeable atmosphere. The intimate association of erysipelas with an impure state of the blood caused by imperfect assimilation and excretion, would seem to be something more than probable.

In these cases of erysipelas of the face narrated, the disease occurred idiopathically; at least there was no known exciting cause. In two cases of erysipelas of the scalp the scalp wound probably acted as the exciting cause of the disease. In one case the symptoms subsided as soon as the dressings were changed, a purgative administered, and antiphlogistic regimen put in force. Two cases originated in very trifling causes—viz., in one, moving about with a shoe-tie crossing the dorsum of the foot and causing considerable pain; in the other from friction with too large a boot. The case of phlegmonous erysipelas was consequent on a rusty nail penetrating the sole of the foot.

The three idiopathic cases terminated with desquamation without the formation of purulent matter. The local treatment adopted in two of these cases was anointing the face with olive oil; in the third fomenting with a warm solution of lead and opium. The general treatment consisted in the administration of purgatives in the three cases, combined with strict antiphlogistic treatment in two, and in the third with the administration of tincture of the muriate of iron.

Of the five cases of traumatic erysipelas, the two of erysipelas of the scalp require no further notice. One case of erysipelas of the foot terminated in abscess of the dorsum. After this was evacuated, the only other treatment required was rest in the horizontal posture. Case 5 recovered with rest in the horizontal position, a purge, and the internal use of the citrate of potash. Case 6 was more severe than any of the others. Three months elapsed before the individual could walk about the house, and other four weeks before he had sufficient strength to walk out in the open air. The protracted character of the case resulted from the extent and severity of the local disease, the slowness with which the large abscesses, the extensive sinuses, the bed-sores, and the ulcers healed. The treatment consisted essentially in free incision; with quinine and opium internally, as well as iron, and occasional doses of calomel and opium. In the first instance incisions were made to subdue local inflammation, relieve tension, and save texture, afterwards to evacuate purulent collections. The abscesses, ulcers, and sinuses were treated in the ordinary way. Of the two sequlæ, urticaria and eczema, the latter alone requires further notice. The application of alkaline

wash and lead wash exerted no effect on the disease. Two or three poultices were sufficient to remove the furfuraceous pellicle, and a strong tannin wash applied directly to the diseased surface was quite successful.

Other remedies have been resorted to in the treatment of erysipelas, of which aconite, belladonna, a mixture formed of antimonial solution, sulphate of magnesia, and senna infusion combined; puncture and blood-letting are the most important.

CASE OF MALIGNANT PUSTULE (PUSTULAR CELLULITIS?) IN THE ARM.

AMPUTATION BY TEALE'S METHOD NEAR THE SHOULDER—DEATH.

By FURNEAUX JORDAN.

Assistant-Surgeon to the Queen's Hospital; Senior Surgeon to the Birmingham Eye and Ear Hospital; Professor of Descriptive and Surgical Anatomy at the Queen's College.

A VERY singular feature of the following case is its long duration—eight weeks. Malignant pustule, as usually described, is a disease which terminates fatally in a very few days. Nevertheless, it appears to me that the appended case admits of but one diagnosis,—that which is unfortunately designated as malignant pustule. The term "malignant" being very generally reserved for cancerous affections; and in the cases referred to, the "pustule" is not one but many. I record what I know of the following case, and make but one remark: It certainly does not present a single characteristic of any form of erysipelas. I first examined the case in the operating theatre, and its serious character induced me to suggest to Mr. Gamgee, who was about to operate, the desirability of carefully protecting an abrasion on one of his fingers. That gentleman at once requested me to operate, and courteously transferred the case to my care:—

Thomas D., aged 26, an ostler, constantly at work with the shirt-sleeves turned up. Married; previous health, so far as can be learnt, good. Of medium height and stature; hair, irides, and complexion dark. He was admitted into the Queen's Hospital on August 14 last. Six weeks previously a pustule appeared on the back of the right forearm near the wrist. This he scratched, and, he states, there immediately followed great, indurated, and painful swelling, which was quickly covered with pustules, and here and there black patches. The swelling extended during the next few weeks to the hand along the forearm and above the elbow. The pustules appeared very thickly on the forearm, and covered all the parts which were not destroyed (by sloughing partly and gangrene chiefly).

Present state (August 27).—The countenance is very sallow and indicative of great cachexia, slight but frequent cough, with trifling expectoration. No dyspnœa. Intelligence and special senses unimpaired. Marked prostration is present. Tongue much furred but moist; appetite absent. The right forearm is twice its natural size, the enlargement being chiefly at the extensor surface. There are several spots where the skin has disappeared, of a greyish yellow and black colour. The black colour predominates, and the skin is more extensively affected than the subjacent cellular tissue. The characteristic odour of gangrene is very powerful. Where the integument remains it is covered (thickly on the extensor, more sparingly on the flexor, surface) with pustules as large as a threepenny-piece; the summits of these have been removed so completely, and the central depression is so well marked, that they present a singular ring-like appearance, not very unlike syphilitic "lepra tuberculosa." The hand, elbow, and upper arm are also much enlarged and hard, and present a few black (gangrenous) patches. One of these black indurated swellings on the front of the upper arm is three or four inches in diameter. The blackness is not uniform, but in irregular spots and streaks. The swellings are attended with severe pain. The skin between the pustules and black portions is everywhere of a pale yellowish tinge. There are no pustules on the recently formed hardness of the hand and elbow and upper arm, where the pale yellow skin shows only gangrenous mottlings in the centre of the indurated enlargements. Over a portion of the large mass at the front of the upper arm (the most recent formation), the epidermis is separated by a collection of serum, in quantity about half an ounce.

On the same day that I made the above examination, I removed the arm near the shoulder by the rectangular method of Teale. Six hours after the operation the patient seemed better, and expressed his sense of relief from the pain which had attended the disease. In a few hours after this the cough became much worse, and was accompanied by extreme dyspnœa. There was excessive perspiration. Thirty hours after the operation death occurred from a combination of apnœa and asthenia.

Examination of the Arm after Removal.—Except at those portions of the surface where the skin and superficial cellular tissue had been destroyed, the whole of the connective tissue of the forearm was hard, solid, comparatively dry, and enormously increased in quantity. The sensation on using the knife was that of cutting a raw, tough, resilient apple. The forearm was like a large fibrous tumour, enclosing the bones and muscles, which were unaltered, save that the muscles were a shade paler than usual. The vessels were healthy and pervious. The nerves were, singularly, much increased in size, the median being like the sciatic nerve of a child. At the sloughing and gangrenous spots the greyish hard connective tissue became yellow, and enclosed here and there a few small masses of concrete pus; but it still remained tough, resisting, resilient, and dry. Underneath the black patches the hard grey tissue was freely speckled with black spots. The sickly, gangrenous odour was very intense. I examined, under the microscope, small portions from the grey hard connective tissue, from the yellow tissue bordering on the disintegrated surfaces, and the concrete pus. The hard grey parts consisted of nucleated (one, two, or three nuclei, mostly in process of division) cells, round, oval, and elongated, very variable in size. In the yellow part, besides these appearances, there were disintegrated cells and free nuclei, and the nucleated cells themselves contained much fat. The, apparently, concrete pus was mostly fatty disintegrated cellular tissue, with small irregular pus-cells and peculiar needle-like crystals (probably cholesterine).

Examination of the Body after Death.—The head was not examined, as there had been no symptoms indicative of encephalic lesion. The lungs were gorged with serum; the upper lobe of the left lung was hard and barely crepitant. Both pleuræ and the pericardium contained each between three and four ounces of serum. The cavities of the heart contained partially decolorised clots; these were larger on the right side; and the coagulum in the right ventricle extended some distance into the pulmonary artery. The abdominal viscera were healthy.

Colmore-row.

ON A CASE OF

CHRONIC DYSENTERY SUCCESSFULLY TREATED WITH IPECACUHANA.

By WILLIAM GAYTON, M R.C.S.

THE following case, I think, goes far to prove the efficacy of ipecacuhana powder in the treatment of chronic dysentery; it so closely resembles the one that appeared in *The Lancet* of July 19, that I am induced to forward it for publication:—

J. I., aged 42, a sallow, cachectic looking man, applied to me for advice in the early part of June; he had then been under treatment for ten months, but not receiving any immediate benefit from his Medical advisers, he was unfortunately constantly shifting from one to another. His condition was as follows: Extreme emaciation with anxiety of countenance; severe pain in the hypogastric and iliac regions; pulse 110, small and weak; skin hot and dry; tongue preternaturally red. He had about twenty motions in the twenty-four hours, accompanied with acute pain, shivering, and tenesmus. His appetite was much impaired, and the dejections were loose, slimy, and contained blood.

Before adopting any plan of treatment, I carefully pointed out the necessity of remaining under one Medical man's care, and the probability that a considerable portion of time would necessarily elapse before he would perceive any decided alteration in his condition. I felt so confident that much permanent relief might be afforded him, that to the question, "Shall I ever get well, Sir," I unhesitatingly gave an affirmative answer, provided he promised strict compliance to my injunctions,

On June 5 I ordered him to take every six hours a pill composed of a grain of sulphate of copper with half a grain of solid opium, and a mixture of decoction of logwood. He was enjoined to keep in the recumbent posture as much as possible, and live principally on fish and light puddings.

6th.—Feels somewhat better. Bowels been relieved nine times in the twenty-four hours; not so much straining, but still severe pain; the motions contain much blood.

9th.—Suffers much from dyspepsia. Bowels still very much open, they are of the same character but with less blood; to take a bismuth mixture and continue with the pills.

17th.—Complains of the pain being more griping than ever; the bowels are not so much relaxed, but the abdomen is very tense, and tympanitic pressure increasing the pain very materially; to leave off the pills, but continue with the mixture with the addition of decoction of logwood.

20th.—The pain and tenderness have disappeared, but the purging has increased. He has had twelve evacuations since yesterday; there is increased anxiety of countenance, and the appetite is much impaired; to take one grain of diacetate of lead with five grains of compound kino powder twice a-day.

July 9.—He has about six dejections per diem; they contain no blood, and there is but little pain or tenesmus; to continue as before.

19th.—The pain, tenesmus, and relaxation having returned, and the patient being in a very unsatisfactory condition, I advised the friends to have another opinion. Dr. Munk kindly met me in consultation. His condition then was altogether bad; having a business to attend to, he had been unwillingly obliged to neglect certain orders I had given him; the evacuations then were about ten or twelve in the course of the day and night; he had lost much flesh, and his spirits were very dejected; there was blood in the motions, but not so much as when I first saw him; a pill was administered every four hours, consisting of one grain of sulphate of copper, one grain of powdered opium, and one grain of extract of stramonium, and a mixture of aromatic confection and cinnamon water. A blister was also applied to the right iliac region. Dr. Munk strongly insisted upon the necessity of his keeping entirely to his bed and foregoing all kinds of food which were of an indigestible nature; the pills of sulphate of copper and opium had been discontinued, owing to the severe pain they appeared to cause.

20th.—Seems somewhat better; the bowels are less purged, and there is no blood in the motions; pulse 104; tongue exceedingly red and glazed.

22nd.—Is much the same; the bowels have been relieved eleven times since I saw him yesterday; there is much straining at stool and tenesmus; the pain over the abdomen is but slightly abated, and there is extreme lowness of spirits. I decided upon giving the ipecacuhana powder, which was exhibited as follows:—℞. Plumbi diacetatis gr. iij., pulv. ipecac. gr. xviij., conf. rosæ q. s. ut fiant. Pil. ix. Capiat iij. 8vis hôris. ℞. Liq. cinch. (Battley's) ʒj. tincturæ opii ♏xx, aquæ ad ʒiv. M. Capt. quartam partem 4tâ quâque hôra.

24th.—Bowels been relieved eight times in the last twenty-four hours; there is not so much straining, nor is blood present in the evacuations; he keeps the recumbent posture, and expresses himself as feeling better in his general health. As there is still a great deal of pain over the abdomen, he was ordered to rub the hypogastric and iliac regions gently with the following embrocation:—℞. Olei terebinth ʒss., tincturæ opii ʒjss., lin. saponis ʒxss. M. ft. embrocatio.

August 2.—He has had only six stools during the last day and night; they are more consistent and of a natural colour, but contain a little blood. His expression of countenance is less anxious, and there is a decided general improvement.

For three weeks from this date he remained constantly in bed, and persevered in the same treatment; the number of dejections per diem gradually decreased, the tongue lost its unnatural glazed red appearance, the appetite returned, and all the functions were performed in a regular and healthy manner; most of the anxiety of countenance has disappeared, and he is now able to attend more or less to his business.

Upon referring to Dr. Watson's Lectures and other authors I find no mention of ipecacuhana. I conclude, therefore, that the properties of this drug in the treatment of chronic dysentery are either not sufficiently valued or known; the foregoing case may, perhaps, go some way to assist in extolling its merits, and to bear out the truthfulness and excellency of Dr. Willshire's remarks.

Brick-lane.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

SEAMEN'S HOSPITAL, "DREADNOUGHT,"
AND
THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

CASES OF ANEURISM.

(Continued from *Medical Times and Gazette*, November 30, 1861.)

(Communicated by Dr. WARD.)

Of the following briefly reported cases, two occurred in sailors, one in a tailor, and one in a general dealer. Sailors were, on a previous occasion, shown to be peculiarly subjected to the predisposing and exciting causes of aneurism, especially to syphilis and intemperance. Of tailors, Mr. Thackrah, in his work on "Trades," remarks that they are the most intemperate set of men in London; and their posture in the pursuit of their occupation, would further favour the development of the affection. General dealers are exposed to straining in raising heavy weights, and are also, usually, of intemperate habits.

In the following cases we have the symptoms which were dwelt upon, in clinical remarks made on a former occasion, as characteristic of aneurism, present in greater or less intensity,—viz., paroxysmal dyspnœa and harsh cough, and in two cases, affection of voice. Pain was also a prominent symptom: in one case at the heart, in another in the head, and in a third across the chest. In two of the cases, in which there was apparently not any serious interference with the cerebral circulation, head symptoms were present, such as giddiness, affection of the sight, and pain. It is, however, very remarkable that in the case in which there was complete occlusion of the innominata and left carotid, there were not any head symptoms, from the time of the man's admission to his death. It is difficult to conceive that a sufficient supply of blood could have been conveyed to the brain mainly by collateral circulation established through the left vertebral artery. The case is one of considerable interest physiologically:—

Case 1.—*Aneurismal Dilatation of Aorta, with Occlusion of the Arteria Innominata and Left Carotid.*

Peter B., aged 48, was admitted into the Seamen's Hospital, *Dreadnought*, under the care of Dr. Ward, on May 19, 1862. He had been a sailor all his life, had been ashore for fourteen days, and had previously been on a short voyage to the Mediterranean. He had been ill for four weeks, with dyspnœa, dry cough, and some swelling of the face, hands, and feet. On careful inquiry, it appeared that he had suffered from shortness of breath for three or four months. He said that he had been temperate, and had never had any serious illness.

On admission he presented the following symptoms:—Very hurried breathing, with occasional paroxysms of urgent dyspnœa; dry, harsh cough, the veins of the right side of the neck becoming, on coughing, much distended; the heart sounds are heard with difficulty, from the rapidity and roughness of those of respiration; the right pulse is much feebler than the left. There is some general œdema, most marked in the face and extremities; no albuminuria. He was ordered to keep in bed, to have milk and beef-tea diet, and to take, with a view of reducing the dropsical swelling, a scruple of acetate of potash, with two ounces of the compound decoction of scoparium, and a pill of two grains of podophyllin, and a quarter of a grain of Indian hemp at bedtime.

On the 22nd he had an attack of dyspnœa with very noisy breathing; and on the 24th he expectorated some blood slightly frothy, and there was mucous crepitation with bronchus over both sides of the chest. From this time the dyspnœa became very urgent, and his face very livid. To

relieve these symptoms an attempt was made to bleed him, both at the arm and jugular, but only a few drops of blood escaped.

He died, gradually suffocated, on May 27, there not having been any cerebral symptoms from the time he entered the Hospital.

Autopsy.—The arch of the aorta was found slightly dilated in its whole circumference; the aorta and mitral valves healthy. On cutting open the arch its interior was seen to be rough, with patches of fibrin, not of recent origin, deposited unevenly over its surface. On tracing up its branches only one opening could be found, viz., that corresponding to the left subclavian. On tracing downwards the innominata and left carotid, they were found pervious until reaching the arch, and here occlusion had been effected by a pretty firm and organised deposit of lymph, about an inch in length. Beyond engorgement of the lungs no other morbid symptom was to be detected.

Case 2.—Aneurism of Ascending Aorta—Death—Autopsy.

George H., aged 24, admitted into the Seamen's Hospital, *Dreadnought*, under the care of Dr. Ward, on May 20. He had been eight weeks ashore, and previously, for one hundred and thirty-eight days on his passage from Bombay; he had never been in the habit of drinking much spirits. For the last ten weeks he had been suffering from dyspnœa, tightness across the chest, and pain in the head. Had never had rheumatic fever. On admission he presented the following symptoms:—Loud double bruit, least at the base, and heard along the aorta; a loud ringing noise heard there, apparently transmitted from the apex. The impulse of heart great, and pulse regurgitant; right pulse weaker than left. Some slightly streaked expectoration. Slight œdema of the legs; urine not albuminous. He was placed on milk diet and beef-tea. He was ordered tincture of digitalis and squills, of each twenty minims, in compound decoction of scoparium, to be taken three times a day. On the 24th he was placed on mutton diet; and on the 30th, as the liver was inactive and alvine evacuations deficient, he was ordered a pill of two grains of podophyllin, and half a grain of Indian hemp. This produced three loose stools without griping.

June 10.—The œdema has been relieved, but he is weak, and suffers occasionally from distressing dyspnœa. For the relief of the latter some compound spirit of ether was ordered, and a quinine mixture was prescribed to be taken three times a day. He was also ordered some wine.

On the 17th chlorodyne was substituted for the ether, but without any benefit. The podophyllin was administered from time to time, and always produced a few bulky, bilious stools; its action being unattended with griping.

On the 27th he was evidently worse, the expression of countenance being more anxious than it had been, and the paroxysms of dyspnœa increasing in frequency and urgency. He died on July 1, dropsy and general congestion having previously ensued.

Autopsy.—Lungs slightly œdematous; heart large and flabby, aortic and mitral valves healthy. The commencement of the arch of the aorta was slightly dilated, forming higher up a pouch, which passed behind the origin of the innominata, and which must have pressed upon it. Liver in a state of fatty degeneration. Kidneys very firm, but healthy, and not congested. Spleen firm, healthy looking.

During life there was a well marked thrill over the right carotid, caused, doubtless, by the flapping of the valve-like process formed where the pouch behind the innominata existed.

Case 3.—Hæmoptysis—Laryngeal Voice and Cough—Temporary Failure of Sight—Aneurism of the Ascending Aorta.

J. M., a tailor, 39 years of age, was admitted at the Hospital, Victoria-park, under the care of Dr. Ward, on June 17. He had felt pain and uneasiness in the chest since before Christmas. He had had hæmoptysis to a considerable extent about Christmas, after slightly over-straining himself. Subsequently he had temporary affection of sight, lasting for about a week, and which has since returned for one day. Habits doubtful.

Has now a healthy appearance; his tongue is furred, but appetite good. Pulse 88, and of fair volume. Has cough with laryngeal sound; some thick expectoration in the morning; loses his voice occasionally. Has only raised blood on the one occasion mentioned. Complains of pain across the chest. Occasionally has giddiness. Feels languid and disinclined for any exertion. On examination of the chest, there is found to be bulging over the right second costal cartilages, extended dulness on percussion, loud murmur with systole over the swelling, and heard about equally in large vessels on both sides; loudest just below the swelling over the centre of the sternum; heard at base of heart, and more feebly, as if transmitted, at the apex. Radial pulses about equal; no difference in pupils. A belladonna plaster was applied to the chest, and a mixture was prescribed, containing quinine, sulphate of iron, tincture of hyoscyamus, and infusion of quassia. He was directed to take good meat diet, and to avoid all exertion for the present.

On the 24th he complained of much cardiac pain, which was relieved by a blister.

He continued to improve up to July 29, when he left the Hospital relieved, having lost the more distressing symptoms, feeling stronger, and able to walk with comfort, the bruit and abnormal impulse being much less marked.

Case 4.—Aneurism of the Arch (?) of the Aorta.

J. B., aged 30, a general dealer. He had not been subjected to much straining, but, at times, had had to lift rather heavy weights. He had been suffering from occasional attacks of giddiness and fulness of the throat, accompanied by a sense of choking, for the last three months. When he came under the care of Dr. Ward, at the Hospital in Victoria-park, on June 14, he was suffering from the general symptoms just noticed, and on examination presented the following physical signs:—Dulness on percussion and prominence, with marked impulse, at the left sterno-clavicular articulation, marked harsh bruit along the left subclavian artery, and softer bruit along the left carotid; left wrist pulse decidedly weaker than the right; heart sounds normal; at times dyspnœa and aphonia. He was ordered quinine and iron with hyoscyamus, a belladonna plaster to the sternum, and nourishing diet. He attended at the Hospital until July 26, and left much relieved.

GUY'S HOSPITAL.

CANCER OF THE STOMACH—SLOUGHING—EXTENSION INTO THE LIVER AND PANCREAS—PERFORATION OF THE PERITONEUM—PERITONITIS.

(Under the care of Dr. BARLOW and Dr. HABERSHON.)

[Reported by Mr. HENRY COULING.]

J. O., aged 43, was admitted into Guy's Hospital, under Dr. Barlow's care, on August 23, 1862. He had been a messenger in the General Post-office for the last eleven years, and had always enjoyed good health till three years ago, when he suffered from cough and cold, but he never spat up any blood. He began to lose flesh, and he went as an out-patient to the Brompton Hospital for six months, after which his cough got better, and he discontinued going there. He was pretty well for twelve months, until January, 1861, when, as he was descending a staircase at the General Post office with his arms full of letters, he caught his foot on the top step and fell to the bottom, at the same time striking his stomach very severely against the lower steps. He felt considerably shaken at the time, but did not feel much of it till the third day, when he was suddenly seized with a sharp pain in the abdomen. He kept his bed for a few days, and the Surgeon who attended him ordered medicine, and also bran poultices to be applied to the seat of the pain. This treatment relieved him, but he was obliged to keep in-doors for ten weeks. He then went to his work again; but in a few days he caught cold, and was laid up for another five weeks, after which he returned to his work. From this time he felt very little of the pain in the abdomen, but suffered a great deal at times from vomiting, especially when he took solid food. In June, 1862, while at work at the Post-office, he had a sudden and severe return of the pain in the abdomen. He was then sent home; and from that time the pain had never left him, though at times it was not quite so severe as at others, but it was always worse after eating solid food. For the first few weeks after the last attack he was constantly sick, and when that stopped, diarrhœa set in, which now continues.

Admitted August 23.—He was very pale and emaciated, with hollow sunken cheeks, and a very anxious countenance. On examining the abdomen, a large hard lump could be felt in the epigastric region, which gave him great pain generally,

but much more so when touched. His bowels were very much relaxed, and he was very sick directly he had taken any solid food. His heart and lungs seemed healthy. The abdomen and feet were slightly swollen, but not so much so as they were a few weeks since. He passed very little water, and that always while at stool, so that there was no opportunity of examining it. His pulse was 70, and very feeble; respirations 18 per minute; tongue clean. Ordered tr. calumbæ ʒj., sodæ bicarb. gr. xij., acid. hydrocyan. dil. ɱiij. Mist. acaciæ ʒj. ex aq. t. d. Milk and lime-water diet.

August 26.—The diarrhœa still continued, though he was not at all sick. To have fish.

27th.—Still purged; no sickness. Had a great deal of pain in his stomach. Ordered pulv. opii gr. j. horâ somni sum.

29th.—Was not quite so much purged, and seemed on the whole more comfortable. To go on with his mixture and opium pill.

30th.—He did not seem so well to day. To have beef-tea, etc.

September 1.—He was much worse; seemed very prostrate. His pulse was very feeble. Still purged a little, and complained at times of feeling sick, but had not vomited. Increased pain in the abdomen.

2nd.—Was purged four or five times in the twenty-four hours, but had not been sick. Quite sensible.

3rd.—Appeared to be rapidly sinking. Not quite so much purged; still no vomiting. He had an extremely anæmic appearance, as though there were some hæmorrhage, but he had not passed any blood with his motions. Abdomen partially distended; painful on pressure; pulse irregular and very feeble. Ordered julep. ammoniæ c. tr. opii ɱv. 3tis horis, with brandy ʒvj. Died at 11.30 p.m.

Inspection.—The brain was not examined. *Chest.*—There were no pleuritic adhesions; the lungs were collapsed and healthy throughout. The heart was small and contracted. *Abdomen.*—The intestines were moderately distended, but lymph was effused generally upon the serous membrane, and was especially collected in the pelvis. In the liver a hard nodule was seen at the scrobiculus cordis; and the liver, stomach, and colon were united together. A large mass was felt at the pyloric extremity of the stomach; and on opening the viscus from the œsophageal to the pyloric extremity, a large sloughing surface, five inches in extent, was found to reach from the pyloris towards the cardia. It surrounded this extremity of the stomach; its pyloric termination was defined at the valve, its opposite border was thick, soft, and vascular. At the edges the mucous membrane was seen to be infiltrated with cancerous product; the muscular coat could be traced for a short distance; but in the centre of the diseased part sloughing had taken place, and all the coats of the stomach were destroyed. The nodule in the liver was about an inch in diameter, its centre was sloughing, and it communicated with the slough in the stomach; no other tubera were found in the liver. Below, the pancreas was encroached upon, and partially destroyed; at the posterior and inferior part, close to the colon, perforation into the peritoneal cavity had taken place, but adhesions had prevented extravasation. The mucous membrane of the rest of the stomach was partially dissolved, and semi-digested food with mucus was present, but no coffee-ground substance. The duodenum and small intestine contained pale, thin fæces, but no blood. The head of the pancreas was healthy, and there was no infiltration of lymphatic glands. The spleen was small, but healthy; the kidneys were pale, and also healthy.

CLINICAL REMARKS, BY DR. HABERSHON.

At the commencement of this patient's malady the mischief was referred to the chest, and the cough was so severe that he sought for relief at the Brompton Consumption Hospital. This attack, however, was three years before his last illness, and may have been due to broncho-pneumonia; still on post-mortem examination there was no trace of old disease, and the occurrence of pulmonary irritation from disturbance of the gastric branches of the pneumogastric is perhaps as frequent as the converse, namely, gastric symptoms from disease of the lung. An out-patient at Guy's, a few months ago, had also, in the early period of cancerous dyspepsia, applied at the Consumption Hospital, in whom a large growth was found at the scrobiculus cordis; and these instances are not unfrequent, in which the pallor and cachexia of commencing cancer of the stomach associated with cough are regarded as indicative of phthisical disease.

A severe blow on the stomach led to the rapid development of cancer, probably having the same causative relation as blows upon the mamma to cancer in that gland; the irritation, congestion, or even effusion of blood consequent on the injury determining the deposition of heterologous deposit. Thus also we have seen the formation of cancer at the stomach from constant pressure at the scrobiculus cordis; and in an instance of cancer of the colon, which we have elsewhere recorded, a severe blow from a fall upon the banister of stairs preceded the attack.

Cachexia, pallor, with occasional pain at the stomach and vomiting were the earlier symptoms, and in many cases for a lengthened period these indications are often designated "anæmia," "debility," "nervous exhaustion," etc.

The sudden occurrence of acute symptoms is also to be noticed; it is generally due to the extension of disease from the mucous membrane to the deeper tissues, to the muscular or to the peritoneal coat, or even to the adjoining viscera, and sometimes it may be referred to commencing ulceration. The onset of severe vomiting, especially after solid food, was expressive of pyloric obstruction as well of extreme irritability of the gastric surface. No hæmatemesis occurred, and the case presented a difference in this respect from simple ulceration. The subsidence of the vomiting was due partly to the fluid and unirritating diet which was given after admission into Guy's, and in part to the obstruction in the neighbourhood of the pylorus having been removed by the extensive sloughing of the diseased part. It was the rapid sloughing and the vascular character of the growth that led to the great prostration and excessive anæmia; but the day before death the anæmia became so marked that the idea was entertained of internal hæmorrhage; the inspection, however, did not confirm this supposition. Again, another cause of the excessive prostration was the extension of the disease to the peritoneum, and the occurrence of acute inflammation of the whole serous membrane. The patient was, however, too prostrate then to allow of the manifestation of the ordinary symptoms of acute peritonitis; there was moderate distension, and but slight increase of ordinary pain. The cancerous growth was evidently of rapid formation, and it had involved the liver and the pancreas by direct extension; the lymphatic glands were also more than usually free from infiltration.

The object in these cases is to ascertain, if possible, the true character of the dyspepsia and early cachexia, so as to retard the formation of cancerous growth, and thus prevent the subsequent fatal degenerative changes.

KING'S COLLEGE HOSPITAL.

CASES OF CONGENITAL HERNIA OF ENORMOUS SIZE IN TWO BROTHERS, SUCCESSFULLY TREATED BY OPERATION.

(Under the care of Mr. WOOD.)

George D., aged 7, from West Bromwich, Staffordshire, sent with his brother by Mr. Lloyd, Surgeon, for the treatment of an enormous congenital rupture on the left side, distending the scrotum to the size of a large fist, nearly obliterating the penis and reaching half-way down the thigh. The deep opening of the sac was directly opposite to the superficial ring, the rupture emerging close to the border of the rectus muscle and resting on the pubis, the conjoined tendon being altogether wanting. The hernial opening occupied the whole distance between the rectus muscle and Poupart's ligament, and admitted easily the tips of four fingers. The interior of the abdomen could be explored as high as the navel, the aorta and common iliac artery being felt pulsating plainly. The rupture was completely reducible, but dropped down again immediately the pressure was removed, distending the sac to a great extent when any muscular effort was made. The sac was thickened and firm, permitting the motion of the bowels to be distinctly perceived. From the forcible rush with which the bowels emerged under pressure of the abdominal muscles, it was found necessary to turn the boy upside down during the operation and subsequent dressings, which he resisted with violent struggles. The rest of the belly was small and contracted from the habitual extrusion of so large a quantity of its contents. No truss had ever sufficed to keep up the rupture for the shortest time. The boy is in good health and well nourished. This formidable case appeared at first almost hopeless, from the size of the rupture and that of the hernial openings, the pillars of the ring being so wide apart at their

insertion into the pubis, giving a great deficiency to the abdominal walls. At the earnest request of the parents, anxious for the future welfare of their two children, both affected in the same manner, and hoping much from the subsequent development of the frame, Mr. Wood was induced to attempt at least such a diminution of the size of the opening as would permit the effective support of a truss.

On June 14, 1862, Mr. Wood introduced a pair of his larger rectangular pins. The scrotum was first invaginated into the hernial opening, and the inner pillar and tissues at the edge of the rectus muscle carefully lifted upon it. The skin being drawn a little inwards, a pin was introduced through the tissues from the surface of the groin as deep as to touch the invaginating finger. The finger was then cautiously withdrawn, the needle being made to follow it closely until its point emerged through the scrotum low down. The second pin was then entered at the scrotal puncture and carried up before the invaginating finger till it was placed behind Poupart's ligament, through which it was then pushed, its point being made to emerge through the same puncture in the skin of the groin which was occupied by the first needle. The points of the pins being then cut off, they were locked into each other's loops and twisted round, so as to bring closely and firmly together the tissues perforated by them. They were then held firmly down by a compressed spica bandage. The separation of the sides of the opening at the pubis, and the laxity of the tissues was such, that an opening remained just above the bone (where the soft parts were totally deficient) after the twisting of the pins. Through this a knuckle of intestine escaped during the struggles of the patient after the effects of the chloroform had somewhat passed off. This was returned and held by the pressure of the pad and bandage. The boy was placed in bed, with the shoulders low and the pelvis well raised. After the first day he had but little pain, and except a slight whitening of the tongue no symptoms whatever appeared. No nausea, no disinclination for food. Bowels opened naturally three days after. At that time the bandage was removed, when the lower ends of the pins were found to have produced a deep ulceration in the scrotum. There was little discharge, but much thickening of the sac up to the abdominal opening, and considerable œdema of the scrotum. This extended to the penis, and had affected the prepuce (which was long and affected with phymosis) so as to interfere with micturition. The end of the prepuce was removed, and the lining slit up. The pins were at the same time withdrawn. The violent struggles of the little fellow again produced some extrusion of the bowel. This was returned without difficulty, and retained by a pad. Much induration followed, filling up the whole of the anterior part of the sac, and producing a hard and resisting condition of the sides of the opening.

On July 19 both the punctures were entirely healed. In the upright position a protrusion was found to occur into the posterior portion of the sac behind the testicle and the thickened and consolidated anterior structures. The boy was again put under chloroform, and placed on the table, the pelvis being raised very high. The posterior or perineal wall of the scrotum was then invaginated into the remaining opening by the forefinger, which was firmly kept there during the remaining steps of the operation. A large semicircular suture needle, armed with stout wire, was then passed along the finger and made to transfix the attachment of Poupart's ligament to the pubic spine. It was then carried with the concavity towards the finger round the opening under the skin, and made to emerge near the root of the penis. The wire being drawn through, the needle was again entered at the aperture last made, and passed deeply through the attachment of the internal pillar to the pubic symphysis. It was then brought round the finger on the opposite side, and made to emerge at the opening just made. When the wire was drawn through it thus enclosed the remaining unobliterated sac in a circle or loop, which included also the attachments of the pillars of the ring to the pubis. In twisting the wire up tight some difficulty was experienced in keeping up the bowel, as the boy just then began to struggle violently. This was overcome by twisting the wire tight round the invaginating finger, and then slipping it cautiously out, following it closely by the tightening of the wire. A pad and bandage across the perineum completed the operation. The testis and obliterated portion of the sac could be distinctly recognised during the operation. No symptoms whatever followed this operation. The boy ate his dinner next day as usual, and the bowels were moved regularly. The wire was kept in fourteen days, giving rise to much induration, but very little suppuration. It was then removed by dividing the loop with a small pair of cutting pliers passed through the puncture. Firm pressure was continued.

On August 8 the openings were perfectly healed. On examination in the upright posture after walking a little without bandage a small protrusion could be still observed in the neck of the sac behind the obliterated part when the boy coughed. It could be made out to escape through a chink which still remained above the pubis. The little fellow being in capital health and somewhat fatter than when first admitted, and having suffered so little in the former operations, another attempt was made to close the small opening which still remained.

On August 13 the scrotum was invaginated up to the aperture or chink (within which the finger could not be passed), and a small, well-curved hernia needle was passed through the edge of the rectus tendon on the one hand, and the consolidated structures about Poupart's ligament on the other, drawing a stout wire through each by separate passes of the instrument, without previous incision into the scrotum, the ends of the wire passing through the same groin and scrotal skin apertures. When the wires were twisted together above and below, the edges of the chink could be felt drawn near each other. No symptoms worthy of remark occurred after this operation, and on August 26 the wire was removed, there being much induration, and very trifling suppuration. The apertures were closed about the end of the month.

September 16.—On examination in the erect posture a marked diminution is apparent in the size of the scrotum. The chink in the abdominal walls above the pubis is still evident to the touch. When the truss is removed, and the boy coughs lightly, a slight bulge only is observed in this site; but when he cries or coughs violently, a protrusion is felt passing a little way down behind the indurated mass formed of the bulk of the neck of the sac. This is evidently formed by a single knuckle of intestine. The sides of the remaining chink are hard, firm, and resisting; and much altered from their feel before the operations were done. The chief deficiency is evidently close to the pubis, where the pillars could not be closely approximated. The boy wears one of Mr. Wood's trusses with an ovate, boxwood pad, perforated in the centre, and with flat surfaces forming a sort of broad ring, which fits upon and compresses the sides of the hernial aperture, without invaginating the skin and soft parts into the opening, and so helping to dilate it. This is quite effectual in retaining the small protrusion which remains, even during violent crying, coughing, and other movements.

Charles D., aged 4½, the brother of the last patient, admitted at the same time into the Hospital, with a congenital scrotal rupture of the right side as large as a small fist, which no truss had ever retained. The coverings of the rupture are so thin, that the peristaltic movements of the contained intestines are distinctly visible through them. It is easily and completely reducible. The abdominal openings are very large and lax, and placed directly opposite each other, so that, as in the case of his brother, it has all the appearance of a direct rupture, the neck being bounded internally by the rectus muscle, and externally by Poupart's ligament, no conjoined tendon being recognisable. Two fingers can be passed easily into the cavity of the abdomen, feeling distinctly the pulsation of the iliac vessels.

On June 28, 1862, the operation by the use of large rectangular pins was performed in the usual way, the inner one transfixing the tissues close upon the rectus muscle, and the outer one Poupart's ligament. The experience of the previous case led me in this instance to place a couple of smaller pins transversely across the sac behind the larger. The deeper of these was placed close to and on a level with the upper border of the pubes, avoiding the spermatic cord on the outer side. The superficial one was placed a little higher, close behind the larger pair. All protrusion below and behind the vertical pair of pins was thus prevented. A pad and spica bandage applied pressure over all.

29th.—In the night he had shuffled off the bandage and a great part of the dressings, disengaging the small pair of pins from each other. The ends of the pins have disappeared under the skin, and could not be replaced, owing to the violent struggles of the patient. The pins were left as found, and a pad firmly placed over them, the spica bandage being stitched well to prevent future displacement. Considerable œdema of

the scrotum and enlargement of the testicle followed the operation, but very little suppuration. The boy, with the exception of a slightly filmy tongue, continued unaffected in health, eat and slept well. Bowels open naturally two days after.

July 1.—To-day the pins were removed, the child being held up by his feet during the dressing to prevent any strain upon the new adhesions during his violent struggles. A stout pad held on firmly by sticking-plaster and bandage.

7th.—The sac can be felt filled up to the neck by solid effusion; apertures nearly closed; very little discharge; is in capital health.

14th.—A diminution is now apparent in the size of the solid tumour about the neck of the sac.

16th.—To-day the child stood up without bandage for examination. When he cried violently, a bulge was observable in the neck of the sac extending about three-fourths of an inch downwards, the solidity of the fundus continuing firm and resistant. The scrotum is much shrunk and thickened. The testis can be distinguished somewhat enlarged.

19th.—To-day the aperture which remains at the outer border of the rectus was closed up by a wire ligature carried horizontally across by a common suture-needle. One end of the wire was passed close above the pubis, and made to take up Poupart's ligament and the edge of the rectus tendon at its insertion. The other end was passed superficially under the skin, across the neck of the sac a little higher up. The ends were brought through the same skin puncture on each side, and twisted tightly together down into each puncture, the twists being then hooked on to each other over a cylindrical pad of lint. After the operation, the child went on as usual, very little suppuration ensuing.

On the 30th, the indurative action being very considerable, the wires were untwisted and withdrawn. The apertures healed up speedily, and on August 30, when a careful examination was made, the punctures were completely healed, the parts much consolidated and well closed in, and no impulse or protrusion whatever was apparent when he cried. The testis had nearly recovered its normal size; the shrivelled and contracted sac could be distinguished above it, not in the slightest degree affected by his crying. An ovate perforated boxwood truss-pad was fitted on, and the child was taken home into the country by his father, looking fatter, if anything, than when he came to the Hospital. Since that time I have heard from his father. The spring of the truss, being rather too strong, caused at first some swelling of the testis and scrotum, and some excoriation of the upper cicatrix. This having been altered, the child wore the truss with perfect ease. Not the smallest protrusion has since occurred.

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Medical Times and Gazette.

SATURDAY, SEPTEMBER 27.

THE UNITARY SYSTEM OF CHEMICAL NOTATION.

Most of our readers are probably aware that a system of notation, differing from the one in ordinary use, is daily gaining ground among chemists, both in this and in other countries. We allude to what is called the Unitary System. This was first promulgated in France, some twelve years ago, by Gerhardt, and subsequently developed by his countryman Laurent. Of late years it has found warm advocates in England among several eminent chemists, especially Brodie, Hofmann, Williamson, and Odling. The obstacle to its general adoption among us has been, not any want of conviction of its superior claims, but simply a want of books in which it is explained and employed. This want is ceasing to exist. Dr. Odling's well-known "Manual of Chemistry," now in progress of publication, is in strict accordance with the new system. So are the recent Handbooks of Analysis by Messrs. Northcote and Church and by Mr. Conington. In the last edition of "Fownes' Chemistry" the editors have not adopted the new system, because it would have entailed an entire change in the plan of the work: at the same time they recognise its claims and explain it at considerable length in the Appendix. In fact, so generally is it becoming employed in the Lecture-room, the Laboratory, and in chemical literature, that in a few years' time it will probably have quite superseded the system in ordinary use. We would strongly urge the compilers of our new Pharmacopœia to consider this, and, wherever the chemical constitution of a medicine is either known or assumed, to give its unitary formula side by side with its ordinary formula.

In the unitary system the symbols of the elementary substances remain unchanged, thus H, O, N, C, etc., stand for hydrogen, oxygen, nitrogen, carbon, etc., as heretofore. The atomic weights also, or proportional members, are unchanged, *except in the case of carbon, oxygen, sulphur, and a few of the rarer elementary bodies.* The atomic weights of these are doubled, so as to coincide with the specific gravities of their vapours. This coincidence is assumed to exist in the case of all gaseous or gasifiable elements (except phosphorus and arsenic), when their specific gravities are referred to hydrogen as unity. A corresponding change is of course involved in all formulæ in which carbon, oxygen, sulphur, etc., are combined with any of the remaining elements. If in such formulæ the atoms of C, O, S, etc., form even numbers, these numbers are halved: thus alcohol $C_4H_6O_2$ becomes C_2H_6O; nitric acid NO_5HO or HNO_6 becomes HNO_3; phosphoric acid $PO_5 3HO$ or H_3PO_8 becomes H_3PO_4. If they form uneven numbers, they remain unchanged, while the number of the other atoms is doubled: thus water HO becomes H_2O, protoxide of iron FeO becomes Fe_2O, sulphuric acid SO_3HO or HSO_4 becomes H_2SO_4.

Another important feature of unitary notation is founded on the discrepancy which exists between the atomic weights and vapour densities of simple and compound bodies. The discrepancy is this, that while the atom of any elementary body (except phosphorus and arsenic) always yields one volume of vapour, the atom of a compound body under the same circumstances always yields two volumes. Thus if we combine one atom of H with one atom of Cl, the resulting compound will be one atom of HCl; but this compound atom will yield not one but two volumes of vapour. On this ground the unitary theory supposes that the H and Cl, before entering into combination, existed really as double atoms or "molecules," and that the reaction, which ensues on their coming together, is not a direct union of two *single* atoms, but a mutual interchange between two *pairs* of atoms; thus,—

$$HH + ClCl = HCl + HCl \text{ or } 2\,HCl.$$

Similarly it views a reaction such as that between ammonia and chlorine, not as a mere replacement of one atom by another, but as a double decomposition between two pairs of atoms, with liberation of a free element. Accordingly the reaction will be expressed, not as heretofore by—

$$NH_3 + 3\,Cl = N + 3\,HCl,$$

but by

$$2\,NH_3 + 3\,ClCl = NN + 6\,HCl,$$

or more fully $2N.3HH + 3ClCl = NN + (3HCl + 3HCl = 6HCl)$.

And so with other chemical processes. The great majority, hitherto regarded as unlike each other, appear, when viewed in this light, simply as different forms of the same kind of chemical action, *i.e.*, double decomposition. Whenever, therefore, in the unitary system, free elements (as oxygen,

nitrogen, potassium, etc.) occur in an equation, they are regarded and expressed, not as ordinary atoms (O, N, K, etc.), but as double atoms or "molecules" (OO, NN, KK, etc.), corresponding like the atoms of compound bodies to two volumes of vapour. In other words, *all unitary formulæ represent weights of matter, simple or compound, which in the state of vapour occupy the same volume: they represent comparable quantities of vapour, not diverse quantities, as do the old formulæ.*

The unitary system, taking hydrogen as a sort of starting-point, regards its combinations with certain other elementary bodies as types, on the model of which nearly all chemical compounds seem to have been constructed. These types are hydrochloric acid HCl, water H_2O, ammonia H_3N, marsh-gas H_4C; and from one or other of them, by the substitution of different bodies in place of hydrogen, nearly all substances, the most varied and the most complex, may be conceived to arise. This theory of the constitution of compound bodies necessitates a great alteration in the old-fashioned views concerning acids and salts, and consequently in the old-fashioned formulæ employed to represent them. Ignoring the usual division of acids into two classes, viz., oxygen acids (such as nitric and sulphuric) and hydrogen acids (such as hydrochloric and hydriodic), it regards *all* acids as hydrogen acids, and the capability of exchanging their hydrogen for metal as their essential character. The following instances will exemplify the nature of the changes in the oxygen-acid formulæ:—

	Old Formula.	Unitary Formula.
Nitric acid . .	NO_5HO	HNO_3
Sulphuric acid .	SO_3HO	H_2SO_4
Phosphoric acid .	$PO_5\,3\,HO$	H_3PO_4

As the unitary system recognises but one type of acid—*i.e.*, the hydracid, so it recognises but one type of salt—*i.e.*, the haloid. All salts it supposes to be obtainable from acids by the substitution of metal for the hydrogen of the latter. When the whole of the hydrogen in the acid is replaced by metal, a neutral or normal salt results; when only part of the hydrogen is so replaced, an acid salt results. Thus H_2SO_4 will form with potassium two salts, according as potassium replaces one or both atoms of hydrogen; K_2SO_4 being the neutral, $KHSO_4$ the acid salt. Similarly H_3PO_4 will form three different salts with sodium, according as the latter replaces one, two, or all three of the hydrogen atoms, thus:—

	Old Formula.	Unitary Formula.	
Basic phosphate	$3\,NaO,PO_5$	Na_3PO_4	Strongly alkaline.
Common ,,	$2\,NaO,HO,PO_5$	Na_2HPO_4	Feebly alkaline.
Acid ,,	$NaO,\,2\,HO,PO_5$	NaH_2PO_4	Acid.

We place the old side by side with the unitary formulæ, to show at a glance how greatly the latter simplify our notions of polybasic salts. They represent the gradual loss of alkalinity as coincident, not with any gradual replacement of basic metal by basic water, but with a gradual increase in the quantity of unreplaced hydrogen. Viewed in this light there ceases to be any anomaly in their constitution, the simple difference between them and ordinary salts being that the hydrogen of their acids admits of *partial* as well as *total* replacement by metal. We should observe that, as "Unitarians" consider the bases of all salts to be metals and not metallic oxides, they alter their nomenclature accordingly; thus they speak of sulphate of magnesi*um*, not magnesi*a*; nitrate of potassi*um*, not potass*a*, and so on.

Such is an outline of the more prominent features of the Unitary Notation. We have not space to go into its minuter details, nor to enumerate the various arguments which may be urged in its favour. Suffice it to say that, as the old notation has ceased to give adequate expression to the truths of chemistry, we shall do well to abandon it for one which represents new and, there is good reason to believe, more correct views of the constitution of various chemical substances.

MEDICAL EDUCATION IN LEEDS.

(*From a Correspondent.*)

In continuation of the series of letters descriptive of the advantages afforded by the various Medical Schools of the Kingdom, will you allow me to place at your disposal a summary account of Medical education as provided in Leeds?

The fact that the "Leeds School of Medicine" has been in operation for so long a period as thirty-two years, will show that it is one of the oldest of the Provincial Schools, and the steady manner in which the number of its students has increased from its foundation to the present time, when about sixty may be considered its average number, will further show that it has maintained a reputation which may be favourably compared with other institutions of a similar kind.

In describing the opportunities for Medical education as they exist here, I will speak, first, of the School of Medicine; secondly, of the General Infirmary; and, thirdly, of other institutions which afford opportunities for Medical study.

THE SCHOOL.

In the School itself every facility for the acquirement of knowledge is abundantly supplied. Its Museums are carefully kept up, and are thrown open to the use of the students, who have thus the opportunity afforded them of becoming thoroughly acquainted with their contents.

The Museum of Pathology is large, and the number of specimens very great, and, as the Council of the School are especially desirous that the students should have every facility for studying Morbid Anatomy, this particular Museum has of late years been thrown open as a Reading-room, to which, on payment of a trifling fee, they are admitted from nine in the morning till nine in the evening, and have thus the opportunity, while making use of the Library, of comparing the written descriptions of authors with actual pathological specimens.

The Museum devoted to Physiology and Comparative Anatomy is also well stocked, and though not quite so easily accessible in the daily work of the students, the preparations are freely used in illustration of the Lectures, and thus every one may constantly examine them.

That devoted to Materia Medica has been recently entirely renewed and rearranged, and now affords as perfect a collection of drugs and chemicals as can be desired.

Upon the Dissecting-room, which is justly regarded as the most important part of the whole institution, no care or expense is spared, and every effort is made not only to keep the supply of subjects abundant, but also to see that they are both duly apportioned amongst the students and that each man's part is really carefully dissected.

For the insurance of this object, the Prosector, whose duty it is to superintend and assist in the performance of the dissections of the junior students, is daily in attendance in the room from 10 to 12 o'clock, and the Demonstrator from 11 to 12; and that the most may be made of this opportunity, the entire morning, with the exception of one day in the week, is kept free from Lectures.

The Prosectorship is an office held for the Session by one of the senior students who has passed his Primary Examination at the College of Surgeons; and in order that its intrinsic value may be still further enhanced, a prize of £10 in money is attached to it.

A Sub-Curator, who is provided with residence at the School, and whose fees for Lectures are remitted in consideration of his services, is also from time to time appointed from among the students. His duties are the care of the Library and Museums, the preparation of dissections for Lectures, the selection of the specimens required for the same purpose from the Museums, and the reception, preparation, and putting up, under the supervision of the Curator, of all pathological specimens received

A good library is of course provided, and in addition to the principal journals and standard works of reference, especial care is taken that the current Medical literature of the day is fully represented.

The fee for all the Lectures required by the various Examining Boards is £45, which includes £1 entrance fee to the Library and Reading-room, and £2 2s. the charge for Practical Chemistry.

To this should be added £36, the fee for attendance upon the Medical and Surgical Practice at the Hospital.

The situation of the School ought not to be passed over without notice. Being within a few yards of the General Infirmary, the students can go from one to the other with but little waste of time, and may be summoned to the Hospital whenever capital operations are performed on sudden emergencies. In the second place, the School is in the midst of the chief business centres of the town, and is surrounded by Medical men who are in the habit of receiving pupils into their houses. In the third place, it is within three minutes' walk of the two railway stations, by which Leeds is brought into rapid and frequent communication with the large towns and manufacturing villages which surround it, and by means of which many students residing with Medical men at some distance from Leeds are enabled to attend the School with but little more inconvenience than those who live in the town. The number of students who attend the School whilst residing in neighbouring towns has much increased of late years, owing to the facilities afforded by the great number of trains which run during the day, and the moderate terms on which the various companies grant season tickets.

Should a student, however, prefer to live in lodgings, he will have no difficulty in meeting with them at a reasonable rate (about 12s. or 14s. a-week), in healthy and elevated parts of the town, within easy reach of the School. If he does not object to distance, he may prefer to live in the suburbs, or even a few miles out on one of the lines of railway where the frequency of trains gives him ready access to the town.

Besides those Medical men who receive pupils into their houses on the payment of a premium, there are many others who, engaged in large general practice, are willing to take students attending the School as assistants, giving them board and lodging in return for a moderate amount of service.

THE INFIRMARY.

The Leeds Infirmary, though of a dingy and uninteresting exterior, has many advantages to offer to the Medical student. In its earlier days, now nearly 100 years ago, the Hospital was considered quite a pattern one, although it must be confessed that the sanitary arrangements are not such as would be considered satisfactory in the present day. This is mainly owing to the great want of room and usually crowded condition of the wards, the average number of patients being upwards of 150. It is, however, expected that in about two years these disadvantages will be fully remedied by a new Hospital, intended to hold 300 beds. Plans are now being prepared by Mr. G. Gilbert Scott, and in a not very distant future it is hoped that the Leeds student will have the opportunity of attending an Hospital unsurpassed in its arrangements either in England or on the Continent. The want of room in the wards really acts as a positive gain to the student, since the cases must of necessity be selected, and only the most urgent and those requiring operation can be admitted. The number of important Surgical cases arising from accidents is very large, the supply being kept up by the collieries, machinery, and railways, which are numerous in Leeds and the neighbourhood. The complete network of railways surrounding the town also has the advantage of bringing in many cases from the different parts of the West Riding; indeed, a very large proportion of the in-patients is contributed by the small manufacturing townships in the district around. Besides the concentrated character of the cases, the value of the practice is enhanced by the fact that all diseases (with the exception of infectious complaints) are admitted. Wards are set apart for diseases of the eye, and all the important operations of Ophthalmic Surgery may be regularly witnessed. Post-mortem examinations, with but few exceptions, are performed on all cases; and the students are carefully instructed in Morbid Anatomy and Pathology, the examinations being superintended by one of the Medical officers in every instance. Opportunities for practising the minor operations of Surgery, such as dressing, bandaging, etc., are very abundant, owing to the large number of less severe accidents which are treated as out-patients. The House-Surgeon of the Infirmary, appointed by the Medical Faculty, has the superintendence of both Medical and Surgical cases. He has a salary of £100 a-year, with board, etc. This office is always regarded as the highest prize which the recently-qualified student can obtain. There are also two Resident Assistants to whom the Hospital Practice is granted free, together with the advantages of board, etc.; these officers are generally selected from among those students who have completed their first year. Clinical Clerkships and Dresserships are at the disposal of the Physicians and Surgeons, and are gratuitous.

Amongst the other Medical Charities in Leeds may be mentioned the Dispensary, the Fever Hospital, the Eye and Ear Infirmary, and the Hospital for Women and Children.

THE DISPENSARY

affords a large field for the observation of Medical cases, and the practice of the institution may, if desired, be attended by the students of the Leeds School.

The working of the charity, which consists of daily domiciliary visits within the whole boundary of the township, is of so quiet and unobtrusive a character, that the advantages afforded by it are often overlooked. Nevertheless, since from ten to twelve thousand cases are annually treated there, it no doubt forms a very important supplement to the Practice of the Infirmary. The resident staff consists of three qualified Surgeons—a senior with a salary of £175 a-year, with house, coals, etc., and two juniors with salaries of £90 a-year and residence; and these officers are generally chosen, when possible, from amongst the most deserving of our former pupils.

FEVER HOSPITAL.

It is usually considered desirable to avoid placing the different forms of fever in the wards of a General Hospital, and Leeds is fortunate enough to possess ample opportunities for the separation of these cases. There is a Fever Hospital containing eighty beds, and any febrile complaint is at once admitted on the production of a Medical certificate stating the case to be a proper one. Students can attend the Practice of this Hospital on the payment of a small fee.

The House-Surgeon here also is generally chosen from one of our students. The salary is £100 a-year, with board, washing, etc.

MEDICAL EDUCATION IN ABERDEEN.

(*From a Correspondent.*)

UNIVERSITY OF ABERDEEN.

This University, founded in 1494, has recently been reconstituted by Act of Parliament. In it are now merged the Universities of King's College and Marischal College, and to it now belongs the whole property, and all the rights and privileges formerly possessed by the two institutions. New Chairs, where wanting, have been instituted by the Crown; and the *Senatus Academicus* of the united University comprises a Principal and twenty-one Professors. The University buildings heretofore known as King's College have been appropriated to the Faculties of Arts and Theology, and those known as Marischal College to the Faculties of Law and Medicine. These two Colleges have no longer any separate or independent existence, and the University as now con-

stituted has the official designation of "The University of Aberdeen."

In the department of Medicine the degrees granted by the University are those of Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D). That of C.M. is not given separately, but only in conjunction with the M.B. degree. The latter, however, at the option of candidates, may be taken alone.

The course of study required for obtaining the degrees of M.B. and C.M. comprises four years' attendance on Medical classes. Two of these years must be passed at a University, one of them being at this University; the other two at any duly constituted Medical School in the United Kingdom. Full particulars as to the several conditions requisite for graduation will be found in Churchill's "Medical Directory," or may be had on application to the Dean of the Faculty of Medicine, Dr. Macrobin. All that is here intended to be given is information as to the cost of Medical Education, including graduation, the expense of living in Aberdeen, etc.

I. The cost of education as pursued at the University for a period of four years, or Sessions, and in conformity with the Regulations, may be set forth as follows:—

1. Class fees(a)	£43	1	0
2. Hospital attendance	6	0	0
3. Registration and all other fees or dues, including Practical Pharmacy and Dissections	8	8	0
	£57	9	0
4. Degree of M.B., including diploma	15	15	0
	£73	4	0
5. Degree of C.M., in addition to the M.B.	5	5	0
	£78	9	0
6. Degree of M.D., in addition to the M.B., but exclusive of the Government stamp-duty chargeable for M.D. alone	5	5	0
	£83	14	0

II. As to the expense of living in Aberdeen.—Students that so desire, as the greater number do, may live in furnished apartments, at rates varying from 8s. to 15s. a week. Comfortable apartments, including bed-room and parlour, with fire and light, do not on an average exceed 12s. a week; and if to this be added 15s. for board, 27s., or say 30s., will be a fair estimate of the weekly cost of living. Many students, however, maintain themselves in hired apartments at considerably less expense than this. Other students are boarded in private families, and some with certain of the Professors, at rates varying from £70 or £80 to £100 a year. (b)

Assuming that the length of residence at the University, required for the *statutory* attendance on classes, etc., during the four Sessions, is, in all, thirty months; the expense of living, including board and lodging,—living at the same time comfortably and respectably, either in furnished apartments or in private families,—may be reckoned at from £120 to £180 or £200,—say, in all, for the four Sessions, £150.

Students desirous of having their studies superintended while in attendance on classes, may have this done either under some of the Professors, or by private tutors, certain of whom are officially connected with the University as assistants to the Professors. This item of private tuition, which, however, is purely voluntary, may be set down at about £10 per annum.

The entire cost, therefore, within which a Medical student may prosecute his studies from the commencement and throughout at Aberdeen, maintaining himself the while, and leaving the University possessed of the double qualification of M.B. and C.M.,(c) will be as follows:—

1. Professional Education, including the Degrees of M.B. and C.M.	£78	9	0
2. Board and lodging	150	0	0
3. Add, for Text-books and other incidents	15	0	0
	£243	9	0

III. With regard to the advantages attaching to Aberdeen and its University, this may confidently be said:—

1. That the number of Medical students, while steadily on the increase, is not so great as to preclude the personal superintendence of his class by each Professor,—a superintendence which is, in fact, very carefully exercised in all the classes. The aggregate number of such students is under 200, and the attendance in each class varies from 50 to 100. To several of the classes, also, assistants are officially attached, whose duty it is to aid the Professors in the work of teaching, and the pupils in the prosecution of their studies. In all the classes weekly examinations are held. And the University Library, containing upwards of 60,000 volumes, and amply provided with Medical works, is open daily to students without payment of any fee or subscription. (d)

2. That the Royal Infirmary is of such a size (containing over 280 beds), and is so appointed (there being three Physicians and three Surgeons on constant duty and in daily attendance), as to afford every facility to the student in the way of acquiring practical instruction; while it is probably the cheapest Hospital in the Kingdom connected with a Medical School. For the fee of £6 the student receives a *perpetual* ticket, which admits him both to the Medical and the Surgical Practice of the Hospital; and for £3 10s. he may obtain a season or annual ticket, admitting him to like privileges. No fee is exacted for Clinical Clerkships or Dresserships, which are freely open to diligent students, without favour or distinction; and the offices of Resident House-Physician and House-Surgeon, tenable each for six months, are bestowed on qualified students on payment simply of a board, at the rate of £25 per annum.

In addition to the Infirmary, there are, in Aberdeen, a General Dispensary, Vaccine and Lying-in Institution, an Ophthalmic Institution, and a large Lunatic Asylum,—to all of which students have access for practical instruction on payment of fees that are little more than nominal. And at the Lunatic Asylum (which contains upwards of 300 patients) a course of Clinical Instruction on the Nature and Treatment of Insanity is given annually, during the Summer Session, by the Physician-Superintendent, Dr. Jamieson. For this course a fee of £2 2s is charged. There is also a Medico-Chirurgical Society, comprising a senior and a junior class of members; the latter consisting of Medical students alone, who meet weekly for mutual instruction, and have access to the Library, containing upwards of 3000 volumes, and to which is attached a Reading-room, into which the Medical Journals are received on publication.

3. That from the size of the town (the population of which amounts to 73,000), fewer temptations are thrown in the way of students than is the case in larger towns, while the students are much more under the eye of the Professors. The town itself is a healthy and an agreeable one to live in, and it is within eighteen hours of London by rail.

4. The advantages offered by the University of Aberdeen, for the prosecution of Medical study, are much enhanced when viewed in connexion with the facilities it affords for preliminary or general education, and for graduation in Arts. The

(a) It is but right to state that, as to some of the classes,—*e.g.* those of Anatomy and Surgery,—students commonly attend duplicate courses. These, whenever taken, although purely voluntary, necessarily add to the amount given above for class fees. £10, however, will be a full allowance for these extras.

(b) The Dean, and his colleagues in the Faculty of Medicine, are often applied to by the parents or guardians of young men to recommend apartments or private families; and they have pleasure at all times in complying with this request.

(c) These degrees of M.B. and C.M., given after one and the same set of Professional examinations, qualify fully, in Medicine and Surgery, for the Army and Navy and other public Boards, as well as for private practice in any part of the British dominions.

(d) The very valuable library, which belonged to the late Sir John Forbes, Physician to Her Majesty's Household, was presented to the University by Sir John on his retirement from practice, and is available to students.

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classes in Arts are attended annually, during Winter Sessions of about five months (from November to March), by about 380 students; and it may be mentioned, as evincing the excellence of the system of instruction, that within four years no less than three students of this University have attained the distinction of the Senior Wranglership at Cambridge.

The bursaries, which are equivalent to scholarships or exhibitions in the Universities of England, are numerous and valuable, being 190 in number, and £2811 per annum in aggregate value. Of these, about 128—that is, 32 annually—are open to unreserved competition; and, being tenable for four years, are available in the fourth year to students attending the Medical along with the Arts' classes. The value of these bursaries ranges between £30 and £10 per annum.

In addition to these, twelve scholarships (strictly so called) of from £65 to £60 each per annum, and tenable for four years, are given on competitive trial to Masters of Arts, and may be held by Medical students. There is also a scholarship of £50, tenable for three years, and open to Medical students who are graduates in Arts; and an exhibition of £23 restricted to Medical students.(e)

The expense of the Preliminary Education, or that in Arts, will depend on the number of years devoted to it.

First.—If a complete course of four Sessions be taken, with a view to the degree in Arts (the advantages of which need not be insisted on), the last year, with attendance on one class in the Faculty of Medicine, being reckoned an *Annus Medicus*, three years will be the whole extent of time to be added to the strictly Medical curriculum, at an expense of—

1. For class, graduation, and all other fees . .	£34	11	0
2. Board and lodging for the three Sessions, from £70 to £90, say	80	0	0
	£114	11	0

Secondly.—If the student, previous to entering the Faculty of Arts, be found on examination properly qualified, he may proceed to the degree in Arts in three years, instead of the usual period of four, at an expense of—

1. For class, graduation, and all other fees . .	£31	7	0
2. Board and lodging for the two Sessions, from £40 to £60, say	50	0	0
	£81	7	0

Thirdly.—If the student wish merely to qualify himself for the Preliminary Examination required at entrance on Medical studies, he may do so by attending two Winter Sessions in the Faculty of Arts, along with a Summer Course of Natural Philosophy (during which summer he may also take his Course of Botany), at an expense of—

1. For class and all other fees in Arts . . .	£15	13	0
2. Board and lodging for the two Winter and one Summer Sessions, from £50 to £70, say .	60	0	0
	£75	13	0

(e) In the department of Arts the exhibitions of all sorts amount to about £3644 per annum, giving, among 380 students, one exhibition to every two students.

THE WEEK.

DISALLOWANCE OF PRIVATE MEDICAL ATTENDANCE FOR THE ARMY.

A CIRCULAR memorandum has been received at Chatham Garrison from the War-office, announcing that in accordance with the decision of the Secretary of State for War, Medical aid to all branches of the military service will in future be governed by the Army Medical Regulations dated October 7, 1859, all other previous regulations and orders on the subject being cancelled. This decision on the part of the Secretary of State for War is notified for the information and guidance of staff and regimental officers and the various departments of the Army. In accordance therewith all officers, as well as members of the civil and military departments, will in future only be entitled to Medical aid at the public expense when there is a military Surgeon at the Station, or a private Medical Practitioner in attendance, at contract rates, on troops, staff pensioners, or the permanent staff of militia regiments; and when their residences are situated within the radius of a mile from the principal Army Dispensary at the station, or such other point as may from time to time be fixed. No separate Medical claims will be allowed for any of the individuals above named.

DEATH OF MRS. LIVINGSTON—MORE ENGLISH SACRIFICES IN CENTRAL AFRICA.

IN the *Medical Times and Gazette* for July 5, we narrated the circumstances which led to the death of the lamented Bishop Mackenzie, of the Zambesi Mission; a man whose intense energy, self denial, and prudence well qualified him for the supervision of the delicate and difficult work of planting Christian civilisation amongst the savages of Central Africa. We there showed from the published accounts that the whole district chosen for the commencement of the missionary operations, was unfitted for the residence of Europeans; that the navigable river which had been promised as a base of operations was not navigable; that supplies could not be got; that the food necessary for the life of Europeans, even in a healthy district, cannot be procured; and that fever of the worst kind is only kept at bay by medicine. We denounced then, and again denounce, as an act of carelessness, which had led to the sacrifice of most valuable lives, the fact that the site for the mission was most imperfectly surveyed; that all Dr. Livingston's enthusiastic statements were accepted without hesitation; and that the doings and sufferings of a man of heroic mould and endurance, fever-proof and fatigue-proof, like Dr. Livingston, were accepted as precedents for other people to follow. We there showed that fever had dogged the steps of the missionaries from the first. Fresh calamities have since followed. Mr. Fitch writes to the daily papers thus:—

"There is one item of information brought by the Bombay mail which will sadly interest the friends of Dr. Livingston. His wife has died of fever. She had joined him on the Zambesi just as he reached the coast from his adventurous journey up the Shire to the Lake Nyassa. Her arrival was a very welcome one to him, a comfort and an assistance. For three months he had her society. Of course she was attacked by fever—*none ever escape in that region*—but, as she observes in an unfinished letter to my wife, had 'got nicely over it,' giving hope that her constitution and the usual remedies, with the blessing of God, would bear her up until her husband could put his new iron steamer together, and leave the inhospitable coast for the higher and more healthy regions of the Shire and lake. Providence had decreed otherwise. She was soon seized again; quinine failed in her case; for some days she lingered, then became unconscious, and died peacefully on Sunday, April 27. Her husband had attended her night and day, and was with her as she opened her mouth to breathe, and shut it to breathe no more, so quietly did her spirit depart. He has had many troubles, but this is his heaviest. He writes in the fulness of his heart, crushed for the time. The strong man is bowed down; yet he tries to comfort his children, telling them 'she is not lost, but gone before,' and urging them to follow her as she followed Christ, that they may join her in Heaven. 'A grave was dug the next day,' writes his brother, 'under the large Baobab, mentioned by the officers of Captain Owen's expedition, and about 150 yards from Shupangu-house, and there we buried her. It was a sad day for us all, and of course more particularly for the bereaved Doctor. He feels his loss most keenly. His faithful wife, the mother of his children, taken so soon after joining him once more.'"

We learn at the same time that the Central African Mission, the establishment of which cost Bishop Mackenzie his life, has been withdrawn from the site of its labour for the present, in consequence of the hostility of a neighbouring

tribe of savages. But this enforced removal, though it may seem a calamity, is probably a blessing in disguise, and may be the means of saving many lives. Let us see what sort of a site was chosen. The Rev. Mr. Procter, the surviving chief of the mission, writes thus to the Bishop of Capetown: — "We had intended to leave Magomero and seek a new site, somewhat nearer the Shire, among the hills, ever since our experience of the last rainy season, in which so many of our people died, and we suffered ourselves so much from sickness; the place lying low, and surrounded with thick vegetation, had been pronounced decidedly unfit for our further habitation by Dickinson." "Except a little fever now and then, our general health was much improved, as a plentiful *chimanga* harvest was being got in." Speaking of the place to which they have retired, he says:—"On this side of the Shire the work may be carried on if we can keep in health where we now are; and *this does not seem impossible.*" We are sorry to find that missionary operations should be conducted as recklessly as if they had been inspired by the Horse Guards. We do not want our best clergy to perish in an African swamp, as our army did in the Dobrudska.

THE CASE OF JOSEPH HODGES.

It will be remembered that in the spring of last year we drew attention to the case of Joseph Hodges, a man who had been sentenced to twenty years' penal servitude, on a charge of having carnally abused a girl of eight years old. It is highly satisfactory to learn that in consequence of the efforts of Dr. Wybrants, of Shepton Mallett, supported by this Journal and by a Medical contemporary (the *British Medical Journal*), Sir George Grey has desired the Governor of Bermuda to send Hodges to England, and that he proposes to authorise the convict's release on licence upon his arrival. Dr. Wybrants has the merit of having first brought the facts of the case before the notice of the Profession, and of having spared no exertion to rescue an unfortunate man from the consequences of what was at best a most questionable verdict. Without going again into the merits of the case, we may remind the reader that the Medical evidence was clearly insufficient to warrant a conviction, whilst the testimony of the child had been probably prompted by questions put by the Surgeon who examined her, and by the threats and representations of her relatives.

CAN FEVER ARISE FROM "SHOCK"?

A case has lately been made the subject of a Coroner's inquiry which presents some points of great Medical interest. A lady, Mrs. Harriet Coleman, was, on August 5 last, a passenger in a train on the Crystal Palace line which came into collision with a ballast train near the London-bridge terminus. She does not seem to have been seriously affected at the time of the accident, but the following day she called on her Medical man, Dr. Edwin Paine, who found her suffering from "shock" and a cut lip. She continued to walk about, and a week or ten days afterwards again visited her Medical attendant. She afterwards became worse, and gradually sank and died five weeks after the accident, without any striking symptoms except colicky pains in the bowels. The post-mortem, which was conducted by Dr. J. Edmunds and Mr. A. Merritt, revealed ulceration of the ilium, and perforation as the cause of death. The heart was dilated and fatty, and there was old tubercular disease of the lungs. The stomach was healthy, but contained coffee-like fluid. The blood and muscles were of a peculiar fresh scarlet colour. There was but little blood in the body. At the inquest Dr. Paine deposed that—

"In his opinion deceased died of fever consequent on the shock to her nervous system.

"Mr. Merritt said that he found that the immediate cause of death was ulcerous perforation of the intestines, which is a frequent consequence of fever, but sometimes is an independent disease. A person of very nervous constitution would be very likely to get such a fever from shock to the system, and in this case the shock had no doubt caused the mischief. The ulceration did not seem to have existed before the shock.

"Dr. Edmunds attributed death to ulcerous perforation caused by typhoid fever. Typhoid fever was as specific a fever as small-pox, and was not frequently set up by 'shocks.' He thought it would not be set up by a shock; but a shock, like all other depressions of vital power, might in certain cases of disease make the difference between death and recovery."

The question at issue is whether shock to the nervous system can give rise to a fever simulating and accompanied by the same pathological changes as true typhoid. If this be answered in the affirmative, a charge of manslaughter will rest against the driver of the train, and a claim for compensation against the Company. The jury returned a verdict of "death from the effects of ulceration of the intestines from typhoid fever, accelerated by a shock to the system from the railway collision."

EXPLOSIVE COPPER GAS-PIPES.

Dr. T. L. Phipson has written to *The Times*, calling attention to the dangerous character of a substance formed when copper or bronze pipes have been submitted for a long time to the action of coal-gas. The substance is a combination of copper and acetylene; it is highly explosive, and when dry detonates with great violence if rubbed, struck, or heated. He writes:—

"Already some accidents have occurred, and some workmen have lost their lives while cleaning large copper gas-pipes from this circumstance. No such explosive compound appears to be formed when iron or lead are used. It is evident that large copper gas-pipes are unsafe and that some other metal should be substituted for the copper, as the latter may give rise to explosions at any moment. As concerns small pipes constructed of this metal, they should not be allowed to get foul, and when about to be cleaned hydrochloric acid should be introduced into them for about ten minutes before they are submitted to any heat or friction. Hydrochloric acid decomposes the explosive compound, combines with the copper, and puts the gas acetylene at liberty. The acid may then be washed out with hot water."

We presume that the explosive compound referred to is the same as that formed when acetylene is passed through a solution of subchloride of copper in ammonia. A flocculent dark red insoluble compound is produced, which, when dried, has similar detonating properties. Fortunately, however, copper is too precious a metal to be largely employed for gas-piping. Ordinary gas-tubing is made either of iron, pewter, or a composition of zinc, lead, and tin. The caution, nevertheless, may be useful.

THE ANTIQUITY OF MONKEYS.

By the discovery of a slight palæontological error the Transmutationists have been deprived of some few tens of thousands of years for their theoretical development of Man from some Quadrumane. It will be remembered that up to the time of Cuvier no monkeys had been found even in the diluvium, much less in tertiary deposits. The progress of research, however, at length brought to light two fossil gibbons (Pliopithecus and Dryopithecus) in the miocene or middle tertiary deposits in the South of France, and another genus (Mesopithecus), in the tertiary formations of Greece. Examples of other genera (Semnopithecus, Cercopithecus, and Macacus) have also been found in the upper tertiary or pliocene strata. The existence of a fossil monkey in the eocene or older tertiary formations rested on less evidence. In 1839, part of a jaw and a few much worn molar teeth were found in the eocene deposits of Kyson, in Suffolk, and

were referred by Professor Owen to a species of monkey, which accordingly received the name of Macacus Eocœnus. The supposed discovery was hailed with delight by a certain school of geologists, who had come to the conclusion that because the London clay contained the remains of boa constrictors and opossums, and because the former in the present day dine off monkeys in the tropical jungles of the Old World, and the latter inhabit the same forests with Platyrhine Quadrumana in the New, therefore they must have been congeners at a time when our climate allowed palms to wave, and turtles and crocodiles to lay their eggs on the shores of the great river which has deposited their remains in the clay of Sheppey. The tempting theory, however, is proved at present to be unsupported by fact. More perfect specimens of the so-called monkey show it to have been a small Perisso-dactyle pachyderm (*Hyracotherium cuniculus*), allied to the Hyrax and Tapir, and far removed from the dignity of Primates. The great lesson taught by the expunged quadrumanous patriarch is not so much the occasional fallibility of the best observers, as the necessity for caution in drawing inferences on the part of palæontological theorists.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

It is my intention to commence my notice of this week by alluding to the contrivances exhibited by Mr. Bates, of Philadelphia, for the relief and cure of stammering. There is not any doubt but that there are some cases in which this distressing condition has a central cause which does not admit of any relief; for instance, some congenital defects of the brain are sometimes associated with an incurable hesitation of speech. On the other hand, it is equally clear that there are numerous examples in which the defect referred to has existed from early childhood, and in which it depends on a certain condition of the motor nerves that supply the muscles of phonation, which it is difficult to define; while there are other cases, again, in which stammering seems to have been acquired by imitation, and indulged in until it has become a settled habit.

There are other instances of irregular muscular contraction which bear a certain relation to the class of cases of stammering to which I have last alluded; for instance, some people are liable to a periodical and involuntary contraction of the muscles connected with one angle of the mouth; in others, the brow is now and then corrugated for a moment; while I have seen one gentleman in whom the whole of the muscles connected with one shoulder and side of the neck were convulsed for an instant, once in every three or four minutes. In this case the action was quite involuntary, and it was, according to his own account, the result of constantly imitating a friend who had a somewhat similar affection. I do not know whether this contraction took place during sleep or not.

To return to the treatment of stammering: I may notice in passing that the operations devised some years ago, in which the Surgeon either divided some part of a muscle, or removed a portion of it, failed in the great majority of instances, as naturally might have been expected. The importance of Mr. Bates' system depends on the fact that in cases of stammering it very often happens that the muscles of the voice produce a much more smooth series of sounds when there is a continuous current of air passing through the larynx and mouth. The habit which some stammerers have of intoning an open sound just before beginning to speak, owes its value to this fact. A short reference to the adjoining figures will explain the way in which these ingenious contrivances act; and I may mention here that I have had an opportunity of testing the immediate result of their employment, and am pleased to say that I was astonished to observe the great facility with which, by their aid, the most difficult words were articulated by a young man, who stammered so badly as to render it almost impossible for him to converse.

Fig. 1 represents the instrument which is intended to aid

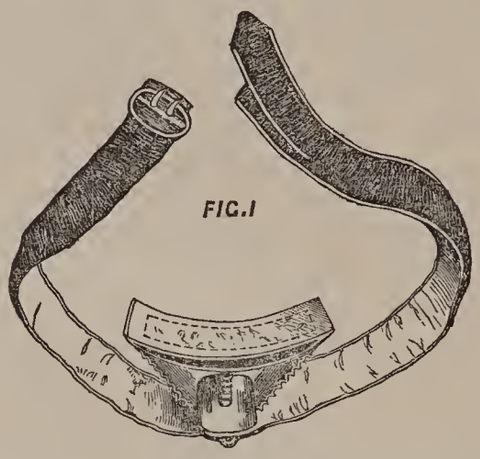


FIG.1

the stammerer in the pronunciation of guttural sounds, such as syllables commencing with the letters *c*, *g*, *k*, and *q*. It is worn round the neck, and pressure is excited on the thyroid cartilage by turning the small screw shown in the diagram. The opening of the glottis is thus kept more than usually patulous. Fig. 2 shows the second of Mr. Bates' ingenious devices as it is worn. It consists of a small flat tube, which is fixed to the roof of the mouth by means of a piece of india-rubber, which passes between two incisor teeth, and is attached to a small button which prevents it from slipping out of position. This little device allows a current of air to pass through

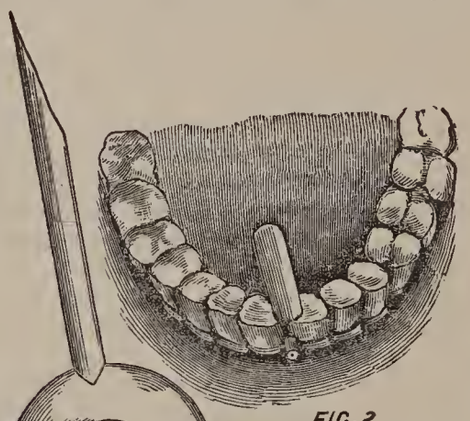


FIG.2

FIG.3

the mouth during the pronunciation of lingual sounds. Fig. 3 represents a contrivance by means of which air passes fresh between the lips during the articulation of labial sounds. The circular disc, which is held between the cheek and teeth, is perforated; the opening in it being in communication with the tube, which is terminated by a piece of quill to resemble a tooth-pick. This protrudes between the lips, and a current of air is kept up through it while the wearer is talking. Mr. Bates advises patients to read from a dictionary for a certain time during the day such words as they find difficult to pronounce; and he asserts that many cases have been permanently cured by means of the little instruments I have described. The effect of their employment on a case under my own inspection was, I have already stated, most successful.

Mr. Pratt, of Oxford-street, shows a varied collection of instruments, which are of great ingenuity and perfection of manufacture. His spinal supports recommend themselves by their lightness and simplicity of construction. That represented in Fig. 4, although intended for an adult, weighs only twenty-two ounces, and is extensively employed in some cases of paralysis and lateral curvature of the spine. The chief feature in its construction is the posterior central bar, which is so adjusted that the spinous processes of the vertebræ never come in contact with it, while it transmits the weight of the upper portion of the body, and distributes it equally over both ilia. The back of the instrument is furnished with a fine rack adjustment, by which the support

afforded by the instrument is capable of being increased or diminished. If it is necessary to employ moderate pressure against projecting ribs, the upright bar affords a sure and firm attachment for rods to effect that purpose.

Fig. 4.

Fig. 5.

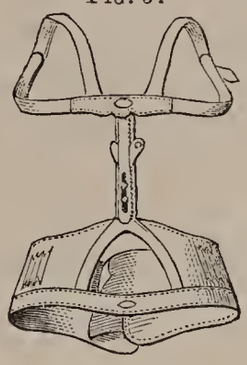
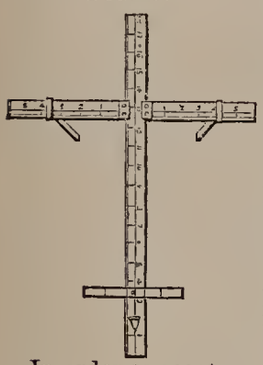


Fig. 5 represents Mr. Pratt's apparatus for angular curvature in the lumbar region. The bifurcated portion allows the osseous angle to project without its coming into contact with any part of the instrument. When the angular projection is in the dorsal region, the bifurcation is, of course, in the upper part of the apparatus. The greater number of orthopædic instruments which are in the Exhibition are, as I have already mentioned while describing some of them, of great lightness and practical value; there are, however, some makers who have produced different apparatus which retain more or less of the old clumsiness, which must soon disappear. It is a matter of congratulation, however, for the Surgeon of the present time to know that so many able mechanicians are at work, day by day, to produce portable and useful contrivances for the relief of some of the many distressing infirmities to which the body is liable.

Fig. 6.



A simple instrument, which is employed by Mr. Pratt for measuring the amount of lateral deviation in cases of distortion of the vertebral column, is shown at Fig. 6. It consists of a plumb-line and graduated measure, by means of which the amount of distortion may be registered.

In order to meet a want felt by Army Surgeons, Mr. Pratt invented his Army truss, with auxiliary spring (Fig. 7.) This apparatus can be used for either the right or left side; it can be made longer or shorter by sliding the pad on the spring; and the position of the pad can be changed in order to suit the peculiarities of each case. These are very important conditions, especially on detachment service, when every ounce of weight requires consideration; so much so, that since its invention Mr. Pratt has supplied some thousands to the Army.

Fig. 7.

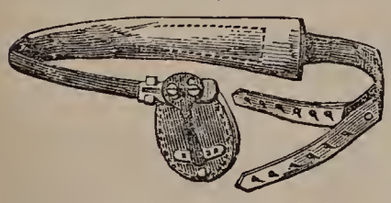


Fig. 8.

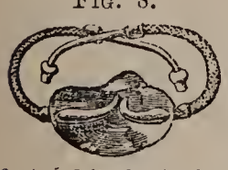


Fig. 8 shows Mr. Pratt's patent auricle for the use of deaf persons. The inventor does not claim for his instrument the merit of condensing more rays of sound than the large horns and tubes in general use; but there is no doubt but that the auricle can be worn with ease and comfort, while both the hands are left at liberty. The small extremities of the tubes are placed in the two auditory canals, and the auricle is partly hidden under the chin. I think that it would be well if deaf people employed such an instrument more frequently than they do, for they can hardly recognise the annoyance which it is to others to carry on a conversation, unaided by some form of acoustic instrument.

The adjoining illustration (Fig. 9) represents a compress to be worn on the arm for the purpose of putting off an attack of epilepsy. The exhibitor certifies that a patient of Dr. Brown-Séquard's has worn one for eighteen months, and has succeeded, by exerting pressure with it on the arm, in arresting

Fig. 9.

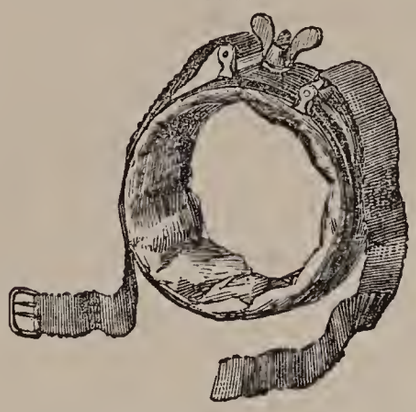


Fig. 10.

the "aura epileptica," and has had no epileptic attack during the whole time.

The next illustration, Fig. 10, represents a support which is likely to be useful in certain cases of disease of the knee-joint. In this instrument the weight of the body is received by a leather "bucket," which is in close contact with the ischium, and is conveyed by two metal supports to the ground. The knee is thus relieved of superincumbent pressure, and I may add that the strength of the instrument is increased by the metal supports being curved to the shape of the leg.

Mr. Pratt exhibits an artificial leg, which is of very good form, but it does not present any point of especial interest.

The same exhibitor also shows two cases of Surgical instruments, which are of beautiful finish. One of them contains the instruments which are used by Mr. Baker Brown in the various operations on the genito-urinary organs of the female; and the other is the full-sized case for an Army Surgeon, according to the last regulations of Her Majesty's Service. In the latter is a new tracheotomy-tube, Fig. 11, which is split so that the blades can be approximated in order to render its introduction more easy. The inner part consists of a spiral wire, which keeps the two parts of the outer tube separated, and allows the mucus to be very readily removed.

Fig. 11.

There are many other instruments which are exhibited by Mr. Pratt to which I should like to refer, but I feel that I have already too much encroached on the valuable space which is allotted to me.

47, Hans-place, S.W.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE INFLUENCE OF OZONE.

By Dr. PFAFF.

Dr. Pfaff, believing that advantage would ensue from a more active intercommunication of the results of ozone observations, gives some account of those which he has obtained at Plauen in Saxony, at 1050 German feet above the level of the sea. He has not found the direction of the wind influencing the presence of ozone, and he does not agree with those who maintain that the atmosphere is never free of ozone. He has found stormy weather exceedingly favourable to its production, the ozone appearing immediately in large quantity during a storm suddenly coming on after a succession of fine weather unaccompanied by ozone. Test-papers, which had remained long unchanged, would then denote 8° of ozone, while as soon as the storm had passed away all reaction on the test-paper would cease—the storm seeming to bring and take away with it the ozone. Similar but less rapid increase in the ozone was observed during mere changes of weather, as when fine weather of long duration was followed by rain. As a general rule, moisture was favourable to the development of ozone, although this has sometimes been absent during several successive wet days. Indeed, the ozone

was usually found at its lowest point during the continuance of any kind of unchanged weather, whether wet or dry. Little or no influence seems to have been exerted by temperature, the proportion of ozone not being greater in winter than summer.

The following are Dr. Pfaff's conclusions with respect to the influence exerted by ozone:—1. A large proportion of ozone in the atmosphere acts mischievously on diseases of the respiratory organs. Persons suffering from tubercle or chronic catarrh of the lungs should posses an ozonometer, and when they observe that there is much ozone in the air they should remain within doors, or if they go out they should wear a respirator. 2. The ozone of the air exerts little or no effect on epidemic diseases, providing that these are not complicated with catarrhal affections. 3. A large amount of ozone in the air, whatever may be the direction of the wind, favours the development of inflammatory affections, and especially tonsillitis. 4. Other affections besides the above mentioned do not seem to be influenced by the amount of ozone. It is well known that the air of apartments is nearly or quite free of ozone, although this may exist abundantly outside; but to the question as to how then can patients remaining within doors suffer when ozone prevails extensively without, it may be replied that they do so just as they suffer from the east wind in well-warmed apartments. It is not impossible, too, that their sensitive nervous systems may be influenced by small quantities of ozone not detectible by the ozonometer. If this is the case, it might be desirable to deozonize the apartments by means of gaseous emanations. The possibility of doing this was accidentally shown to Dr. Pfaff by the failure of his ozonometer to furnish indications as long as it was under the influence of the ammoniacal emanations proceeding from stagnant water.—*Henke Zeits. für Staats*, 1862, No. 2.

EXCERPTA MINORA.

Deceptive Appearance of Fluctuation.—M. Nélaton took the occasion of a recent case to draw the attention of his class to an important point in practice. The superficial muscles and tendons of the forearm had been divided by a circular saw, and after the accident an unsuccessful attempt had been made to unite the parts by first intention. In such accidents this does not take place, and the endeavour to procure it may be mischievous. But the following is the practical point alluded to:—The dorsal surface of the hand was much tumefied, and the fluctuation seemed so evident that most persons would believe in the existence of a purulent collection. This, however, did not exist, and M. Nélaton observed that there are certain parts of the body in which the tissues exhibit a deceptive sensation of fluctuation. For the upper extremity these points are the dorsal surface of the hand and the superior and exterior portion of the forearm, on a level with the head of the radius; and if deceived by the appearance, we puncture here, blood only follows. This error has been committed hundreds of times for apparent collections in the substance of the calf, and at the upper and outer part of the thigh at the point corresponding to the tensor muscle of the *fascia lata*, and at its upper and inner part on a level with the passage of the psoas and iliacus muscles.—*Presse Belge*, No. 36.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

Paris, September 20.

ON LEAD POISONING.

At present the sympathetic nerve is decidedly the *ordre du jour* here; for not only does M. Bernard continue his communications on this subject at every succeeding meeting of the Academy, but M. Schiff, of Frankfort, has also commenced giving the results of his investigations of the physiological properties of this nerve, and we are threatened with a host of similar contributions from other quarters. I fear that the sympathy of the Medical Profession with the cares and troubles of the sympathetic, may at no distant period become exhausted, if things go on much longer as they do at present; and I think it better to wait till the end of the present flood of essays and experiments on it, then to give you a short summary of the really useful and important acquisitions made to science in this respect. To-day I will just mention that the indefatigable M. Lefèvre, who sees lead-poisoning everywhere, has again brought forward his favourite theory, and applied it this time to the dry colique of hot climates, which is chiefly observed amongst ship's crews, and the true nature of which has up to the present time, according to the gentleman just named, not been recognised, and against which it has not been possible to protect the seafaring population, for the very reason that its cause was unknown. M. Lefèvre contends that the use of the mastic of minium and litharge about ships; the leaden pipes of cisterns; cooking vessels made of tin with an alloy of lead, etc., are the only cause of this disease. Since 1858 the Ministry of the Marine has taken into consideration several propositions submitted by M. Lefèvre regarding this subject, and effected several alterations in the management of ships in order to prevent lead-poisoning; but M. Lefèvre does not tell us whether these measures have served to prevent the recurrence of the colique. It is a curious fact that this disease has been chiefly observed in French vessels stationed in tropical regions, while it is scarcely ever seen on board English ships, where it is called the "French disease." M. Lefèvre thinks that this circumstance cannot be explained if we admit the theory that the colique is produced by a special miasma; and that, if an epidemic of it occurs, it is probably due to the habitual use of the sour French wine, rations of which are regularly distributed amongst the crew, and which become impregnated with lead. I think it not at all impossible that, in some instances, the wine alone, without the lead, may have given rise to the colique.

A MEDICAL TRIAL.

A Medical trial of some importance occurred a short time ago at Rouen. M. Lodieu, an Officer of Health, was called in for treating a boy with a fracture of the forearm. He put on a very firm contentive bandage, which was, by the advice of a Physician, loosened three days afterwards; but the mischief was done, mortification had set in, and the boy lost his hand in consequence. An action having been brought against the Surgeon, several of the highest Professional authorities were called upon to give their opinion, and as is usual under such circumstances, "the Doctors disagreed." Messrs. Guersant and Velpeau stated that the bad result was altogether due to the injudicious treatment adopted, while Messrs. Tardieu, Jobert, and Duchaussoy remarked that the Surgeon was not to blame. It was true that the bandage had been rather tight, but the child had not complained of any pain, and it was impossible to say whether gangrene had been produced by the fracture or the bandage. M. Lodieu was, however, condemned to pay 4000f. damages. An appeal has now been made to the Cour de Cassation in Paris, the defence being that there was at most a "scientific error" in the treatment, about which no tribunal was competent to judge.

LIVERPOOL.

September 15.

Your readers will remember that in May last I gave some account of the sanitary condition of the poor, especially at Preston, as influenced by the cotton famine, and I have recently made more extended inquiries to ascertain whether the three months which have elapsed since then have made much difference in the health of the people.

In Liverpool there is not anything like the amount of distress which prevails in the other great towns of Lancashire, and although the Liverpool Workhouse has a considerably augmented number of inmates as compared with this time last year, I believe that this is due more to the general depression of the county than to any local causes. I heard on good authority that the sale of groceries—a good test of the monetary condition of the poor—had not diminished here. The weekly reports of the Officer of Health show a mortality below the average, and so far as I can judge there is very little sickness prevalent. In order that I might be able to give you some reliable information as to other towns in which the effects of the cotton famine are most severely felt, I communicated with gentlemen holding appointments in public charities, or attached to parochial districts, asking them to favour me with some account of the condition of the poor; especially as to any increase of fever or tubercular disease, or

as to any aggravation in the type of disease in consequence of want.

My inquiries have been most kindly and promptly responded to, and I think that the most satisfactory manner in which I can convey to your readers the details which have been forwarded to me will be to take each town separately, and give the statements of the gentlemen who have been good enough to write to me from each.

1. From Ashton-under-Lyne, Mr. Schofield writes that—In the Mossley District, with 14,403 inhabitants, there has been much less of sickness and mortality than usual, and no epidemic disease of any character; but he adds, it is to be remembered that employment has been more general here than in other towns, and that relief has been freely granted where it was needed.

2. At Blackburn, Mr. Grime, Surgeon to No. 2 District, with 23,111 inhabitants, tells me that since the distress, the amount of sickness has been considerably less than for some time previously, especially among children. Mr. Pickop, Surgeon to the Mellor District, 3485 inhabitants, says that he has noticed no augmentation of disease in the country and out-districts; in the town it is certainly less; no increase of typhus or typhoid fever. Those suffering from tubercular diseases get rapidly worse; some syphilitic cases are aggravated in type, and a few cases of purpura have occurred.

3. Bolton is not so entirely dependent on the cotton trade as many of the other towns, and Dr. Carruthers states that in his district, which contains upwards of 26,000 people, the number of cases of sickness is about 10 per cent. below the average. Mr. Garstang, of the Harwood District, with 11,443 inhabitants, says that he has never known the town to be in a more healthy state than it is now; and Mr. R. A. Clarke, of the Farnworth District, with 13,809 inhabitants, bears testimony also to the fact that disease is below the average amount.

4. At Burnley, Mr. Brown, Surgeon to the Workhouse and to the parish of Burnley, 16,494 inhabitants, and Mr. Coultate, of the Habergham Eaves District, 14,985 inhabitants, both agree that there has been a marked diminution in the amount of disease. There has not been less sickness in the town for many years. Fever is almost unknown, with the exception of scarlatina, which is not very rampant; and tubercular diseases are not more numerous than usual.

5. Bury is not wholly dependent on cotton, but is supported partially by the iron and woollen trades, and here Mr. Parks, Surgeon to the Workhouse, has not seen any marked increase of sickness. Mr. Bennett, Surgeon to the Bury District, 31,399 inhabitants, believes this summer to have been characterised by more than the average amount of health. Scarlatina, which had been epidemic for nine or ten months, is rapidly declining, while decided want has only lately become manifest. On the other hand, Mr. Peniston, Resident Medical Officer of the Dispensary, states that among the poor under his care, cases of anæmia, scurvy, and tubercular disease have showed a marked increase.

6. Chorley.—Mr. Berry, Surgeon to the Leyland District of the Chorley Union, 6516 inhabitants, writes that his neighbourhood has been remarkably free from disease; that in other years at this season, diarrhœa, dysentery, etc, have occurred, but as yet very few cases have presented themselves either in his own practice or that of the neighbouring Medical men.

7. At Eccles, Mr. Roe tells me, the distress has not been very great until lately, as many of the mills have continued to work. Infantile diarrhœa is more than usually prevalent, but otherwise the season has been particularly healthy.

8. From Heywood, Mr. J. Brown, Medical Officer of the Heap District, Bury Union, with 22,537 inhabitants, writes to say, that the town and neighbourhood have been remarkably healthy, the only epidemics—measles in children and febricula in adults, both mild, the latter ending in seven to ten days, and in no case developing into typhus or typhoid fever. No increase of tubercular disease.

9. Manchester.—At the Royal Infirmary, Mr. R. Day, Resident Medical Officer, says, there has been less fever the last six months than during the corresponding period last year. No increase of tubercular disease. Out-patients, both Medical and Surgical, augmented; a large number, however, having only trifling ailments, which would be overlooked during a busier season. In the Market-street District, 25,872 inhabitants, I am informed, by Mr. J. O. Fletcher, that sickness is less than usual, no type of disease aggravated, and that he has not seen a well-marked case of typhus or typhoid fever during the famine.

In the St. Michael's District, 24,166 inhabitants, and principally Irish, Mr. E. Thomas, Surgeon to the district, has seen no unusual ill effects occasioned by the present distress. Mr. Brownbill, for the last twenty-four years Surgeon to the Salford Workhouse, which accommodates 800 paupers, and to which is attached a Fever Hospital for the whole district, has never had fewer cases of fever during any year than at present; he believes sickness in general to be below the average. Mr. J. Rayner, House-Surgeon to the Chorlton-on-Medlock Dispensary, has not seen any augmentation in the amount of sickness, fewer cases of typhus and typhoid fever than usual, and a much lessened mortality among children.

10. At Oldham, Mr. J. Fletcher says, there has been no production of increased sickness; while cases of the ordinary current diseases, such as scarlatina, measles, pneumonia, etc., have seemed milder and less fatal than in more prosperous times. The general death-rate is below the average.

11. At Over Darwen, Mr. Wraith informs me, the people are exceedingly healthy, and there is not even the ordinary amount of autumnal diarrhœa,—a striking contrast to this time last year, when the town was suffering from a frightful epidemic of low typhus.

12. Preston.—Here Mr. Brown, House-Surgeon to the Dispensary, states, that since May there has been no marked change in the health of the people; that the mortality of the past quarter has been remarkably low; but that since the Guild festival the Dispensary patients have considerably increased, probably in consequence of the drenching which so many of the poor people got during the wet weather which prevailed in the Guild week.

13. Rochdale.—Mr. T. Collingwood, Surgeon to the Wardleworth District, 21,957 inhabitants, says that the Union is singularly free from sickness; no increase of fever, and out of 270 cases under treatment since the end of June there was only one in which tubercular disease appeared to be occasioned by want. The deaths in the whole Union for the last two months are 94, against 147 in the corresponding months of last year. At the Dispensary, Mr. F. Green, the House-Surgeon, tells me that, although many who would, in better times, pay a Doctor, now come to the Dispensary, yet for the last few months the patients have been far below the average. Chronic cases of heart disease have appeared to be aggravated by deficient nutrition; and skin diseases, especially scabies, are very rife. Isolated cases of small-pox have increased during the last four or five months, and these have been remarkably severe.

14. Stalybridge.—Mr. J. Brierley states that there is less serious sickness among the operatives than in times of full employment. He has, it is true, five times as many Union patients as in good times; patients with chronic bronchitis, sore legs, skin diseases, dyspepsia, and others who get Medical orders to get extra food or to avoid picking oakum. There will be an increase in the number of births this quarter, and a decrease in the deaths.

15. At Stockport, Cheshire, Mr. J. Blackshaw, whose district has 30,745 inhabitants, has not perceived any material increase of disease, though the Union Medical orders are augmented by cases requiring a Medical opinion as to their fitness for work, removal, etc.

16. Warrington.—Here the pressure is not yet much felt. Mr. Spinks, of No. 2 District, 8899 inhabitants, says there is less disease than usual among the poor. The Fever Hospital at the Union Workhouse has forty beds, but is empty six months out of the twelve, and for the last eight years has had scarcely more than two patients in at any one time.

17. Wigan is, I believe, suffering very severely, and yet Mr. Winnard, Surgeon to No. 2 District (15,841 inhabitants) and the Workhouse, has never known a smaller amount of sickness. The deaths for the present quarter are 118 below the average. Mr. Macloghlin, House-Surgeon to the Dispensary, also says that, particularly since the depression of trade, the decrease of disease in general is most remarkable.

The causes of the generally flourishing state of health, under circumstances which might reasonably be expected to occasion a precisely reverse condition, may, I think, very likely be those suggested by several whose testimony I have given above,—that the men are temperate whether they will or no, that they are much more in the open air than they used to be, and that the mothers stay at home and mind their children more than they used to do.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. Babington, President, in the Chair.

A Report, by Dr. Marston, (communicated by Mr. Henry Lee,) was read,

ON SYPHILIS, WITH REFERENCE TO THE MORE MIXED AND UNUSUAL FORMS OF THE PRIMARY SYMPTOMS.

The writer commenced his paper with a *résumé* of the modern doctrines usually held and taught. When model cases presented themselves, the diagnosis and prognosis were easy. It was the frequent occurrence of mixed cases—sores of various kinds and forms—that offered such great difficulty. Putting aside all question as to the objective symptoms by which an infecting can be differentiated from a non-infecting sore, there could be no doubt that these two varieties or species existed, as proved by daily observation, the results of confrontation, and the very important results obtained from Danielsen's inoculation of patients suffering from Norwegian leprosy with chancrous virus, one case only having been followed by constitutional symptoms, in which the virus had been obtained from an indurated sore. The author, taking typical examples, gave the leading pathological characteristics of the two forms of sore as follows:—What peculiarly marked the soft chancre was a solution of continuity of the soft parts by an ulceration and suppuration, having in its origin and progress an intimate connexion with an active inflammatory process. In the infecting form a slower process of abnormal nutrition in the part affected was observed, by which was induced a localised product, partaking of the nature of a morbid growth, without any necessary relation to inflammatory phenomena. For these reasons it was relatively chronic in its source, and capable of removal by a gradual process of absorption, without the production of pus, or any loss of substance. In the first, the virus (as holds in the case of a mechanical substance) might pass by the lymphatics to be arrested at the nearest gland, there inducing a repetition of the inflammatory process it had originally caused; while in the second, the sphere of influence exerted by the virus was much wider, affecting the vascular as well as the lymphatic absorbents, by which it happened that the blood elements, passing through both chancre and gland tissue, became affected. Dr. Marston then spoke of the limited character of the ulceration or erosion, compared with the deeper and wider seat of the induration. From an infecting sore so characterised, some epidermic or epithelial scales would necessarily be mixed with the scanty excretion obtained from its surface, in addition to lymph cells, which would approach the characters of pus, as the infecting possessed the characters of the non-infecting sore—viz., depth of erosion, activity of progress, and vascularity. The line of demarcation between the two sores, however, the author thought, could not be easily drawn from the character of the discharge alone. Mr. Henry Lee's important observation in 1856, as to the non-auto-inoculability of the indurated sore, was next remarked upon. Alluding to the views promulgated by De Méric, Diday, De Clerc, Rollet, and particularly the exhaustive series of observations made by Bassereau upon a duality of the virus, as the cause of the differences observed in the infecting and non-infecting sores, he cited in illustration the case of a battery stationed at Christchurch. Amongst the many instances of venereal disease, only one ulcer proved to be of the infecting type, and in it the virus was obtained from a London source. The writer then alluded to the modifications in the character of venereal sores effected by the physiological properties of tissue, the effects of irritation and indolence, giving some cases in illustration of his observations. Having premised thus much as essential to the right appreciation of what followed, the author treated of—1. The varieties of infecting sore. 2. The results obtained by auto-inoculation. 3. The occurrence of syphilitic infection after suppurating bubo. 4. The occurrence of constitutional symptoms following urethral discharge clinically identical with gonorrhœa. 5. The bubon d'emblée. 6. The periods of incubation preceding the appearance of the two kinds of venereal sores, and the absence of any guarantee against constitutional infection by any abortive treatment applied to the primary syphilitic lesion.

I. Excluding the Hunterian chancre, and ulcers possessing specific induration, the author made some observations upon superficial erosions, involving but a part of the integument or mucous membrane, and leaving scarcely any induration about the cicatrix, as the frequent precursors of syphilitic infection. He alluded to the different structures upon which such might appear. Ulceration (as generally understood) might scarcely affect such sores at all. When the induration proper to the specific morbid process had its seat in the hardness belonging to the seat of the sore, whether arising from the physiological properties of the affected tissues, or induced by irritation, an infecting sore, most difficult of diagnosis, resulted. When, moreover, the subject of the disease had a hybrid affection—*i.e.*, sores of different characters upon the same spot, a pus-producing and infecting sore, capable of auto-inoculation, and attended with suppurating bubo, might be present.

Under the head of "observed facts" the author cited the following cases:—

1. The infection of a man by his wife, in whom a very trivial erosion existed upon the inner aspect of the left labium, without induration or appreciable discharge.

2. The appearance of strictly circumscribed elevation upon the inner aspect of the prepuce of an officer, the epithelium upon which appeared dull; no trace of ulceration appearing until the part was irritated by the application of a powder, and then very limited in extent. There was a symmetrical enlargement of the inguinal glands, and he afterwards suffered from psoriasis palmaris, etc.

3. A case of numerous superficial erosions upon the surface of the glans healing by local treatment. Eighteen days afterwards the appearance of a Hunterian chancre upon the prepuce, from which last inoculation proved unsuccessful.

4. Two soft, purulent, inoculable sores upon the fossa glandis, which twenty-two days afterwards became indurated; secondary symptoms following.

5. Three soft chancres upon the prepuce, a suppurating bubo in the right groin, and inflamed glands in the left. Inoculation from the sores and bubo proved successful. Sixteen days after the appearance of the disease, and beneath the surface of one healed sore, specific induration appeared, and was healed by mercury.

6. An unbroken pustule seated upon the prepuce, and having an inflamed base. After inoculating the integument of the thigh with the pus, the original pustule destroyed by potassa fusa. The result of inoculation and re-inoculation successful, as far as regards the production of a soft sore, which was destroyed by caustic. As the slough separated from the original seat of disease, induration was apparent around the periphery; symmetrical affection of the inguinal glands; subsequent evolution of secondary symptoms.

7. A case of indurated chancre upon the face, the result of inoculation, by the patient's fingers, of a spot of herpes, followed by enlarged submaxillary gland and secondary symptoms.

Upon these cases the writer made the following remarks:—

Case 1.—The relative rarity of typical indurated chancre in women had been the subject of frequent remark. It would appear that the syphilitic virus falling upon the vascular and loose glandular tissues of the vulva, gave rise to a product identical with what is observed upon the glans penis of the male, and, equally with it, to be often deficient of any peripheral induration.

Cases 2, 3, 4, 5, and 6, taken together, were capable of receiving one of two explanations. 1st. That they were instances of double infection; the soft non-infecting sore, appearing early, suppurating, and auto-inoculable, with the subsequent appearance of the indurated infecting sore upon the same part, or in the same neighbourhood. Or 2ndly. That the inoculation of pus obtained from an indurated sore in an inflamed or irritated condition, gave rise to a pus-producing erosion, which in time became affected with the specific hardness.

Mr. Henry Lee had shown that the infecting chancre is incapable of auto-inoculation; but if such be made first to yield pus, auto-inoculation would succeed, as far as the production of a pustule or soft ulcer. When the author came to the subject of inoculation he would have occasion to remark upon the occasional production of an abortive form of pustule, from the inoculation of other than specific pus. Thus, Dr. Marston referred Case 6 to a pus-inoculation from an indurated sore, and thought that the pustule and inflamed base resulted from the reaction of that secretion, while the induration was the result of the syphilitic virus obtained

through that pus as a vehicle. He referred Cases 4 and 5 to hybrid sores, the result of a double infection. Some observations were made, and cases cited, by the author in illustration of the fact, that sores upon the integument of the sheath of the penis were commonly infecting. In that situation he had observed secondary infection after—1st. The most superficial indolent erosion without appreciable induration (or with it of such slight degree and duration as to have escaped detection), and with little or no suppuration. 2nd. The same with a well-defined, strictly limited, and very narrow rim of induration. 3rd. Sores, appearing like boils or spots of ecthyma, sometimes covered with a scab; discharging pus, indolent, with raised and prominent edges, honeycombed-looking base, and large, but ill-defined hardness. (The author purposely excluded that form of sore appearing as a well-defined, flattened, indolent induration, because he desired to avoid model cases.) He next adverted to the fact, that many of these sores leave scarcely any trace of induration in their cicatrices, but that at first a dull, reddish-brown discoloration remained at the seat of the cicatrix, which ultimately became whiter in tint than the surrounding skin, with faint depressions and radiating lines, marking a circular, stellate form of cicatrix. The result of much observation left a firm impression upon the author's mind that secondary infection was the common result of almost any variety of venereal sore seated upon this part of the organ. In soldiers suffering from constitutional syphilis it was very common to find the above marks of cicatrices upon the integument of the penis. Of six cases of which notes were kept, five afterwards had secondary symptoms, and in two of the six suppuration appeared over the seat of an inflamed lymphatic upon the dorsum of the penis.

(To be concluded.)

REMOVAL OF A HUGE SCROTAL TUMOUR
BY DR. WIBLIN, OF SOUTHAMPTON.

(*From a Correspondent.*)

On Sunday, September 21, Dr. Wiblin, of Southampton, performed an operation of the most heroic order, for the removal of a huge mass of hypertrophy or elephantiasis of the scrotum and prepuce. This is a disease with which we are familiar enough from the descriptions of it which are found in all modern Surgical works, although it is most rarely seen in this country. The first occasion on which an operation for its removal was mentioned in English Surgical literature, was in a paper by Dr. John Maddox Titley, of St. Christopher's in the West Indies, in the Sixth Volume of the Medico-Chirurgical *Transactions*. Writing in 1814, he says that the disease has "of late spread with unexampled rapidity through the whole of the West Indies," and affects both whites and blacks, although the latter by preference. He then gives an account of a case in a negro aged 30, who was the subject of elephantiasis, at first of the legs, and next of the scrotum, and in whom the scrotum, after five years of enlargement, or thereabouts, formed a tumour which weighed 70 lb.

Dr. Titley says that the "spermatic cords could be distinctly felt somewhat enlarged," but that the penis was completely enveloped and buried in the enlarged mass. He began his operation by cutting downwards from a little below the symphysis pubes, so as to expose and isolate the penis. He next laid bare the spermatic cords, but having secured them by ligatures, made a clean sweep of the whole tumour, including the testicles. The motive for this was, that there were no seminal emissions, so that the man was judged to have lost his sexual powers; that the skin was so thick that it was unfit to be a covering for the testicles, and that inflammation of these organs would have greatly added to the patient's danger, and might have brought on tetanus. Dr. Titley's patient recovered. The next patient whose name we find in the records of English Surgery, and the first who was subjected to operation on English ground, was a poor Chinese, named Hoo-Loo, who came to this country on purpose to have the benefit of English Surgical science. He was operated on by Mr. Key, at Guy's Hospital, in 1831, in the presence of nearly 700 persons. The operation began by a rather complicated dissection for the purpose of laying bare the penis and testicles, and of preserving neat flaps of skin to cover them afterwards. But after the flaps had been made, and before the genital organs could be dissected out, such terrific exhaustion came on that everything had to be sacrificed, and a clean sweep made of the tumour, including the parts which such fruitless pains had been taken to preserve. The operation lasted the tremendous time of one hour and forty-four minutes, a length of time accounted for by the intervals absorbed in recovering the patient from the fits of syncope into which he fell. Yet the quantity of blood lost was not large; it was variously estimated at from fourteen to thirty ounces, and the patient's death upon the operating-table was ascribed to the poor diet to which he had been accustomed, to the *pain*, the protracted duration of the operation, and the foulness of the air arising from the crowds who were permitted to be present in a place very ill adapted for the purpose. This patient's sexual inclinations were unimpaired. The next case we find is one of Mr. Liston's, recorded in his "Practical Surgery." No date is given, but it was probably about 1835. The patient was a young man of 22, and the disease had lasted twelve years, and produced a tumour of 50 lb. This is the first case in which the patient was a native of these islands. It is curious in reading Mr. Liston's account to see how formidable the operation appeared in the eyes of this truly great Surgeon; and how he advises the whole genitals to be sacrificed without hesitation, and seems to have the one aim of removing the tumour anyhow, so that the patient escape with his life. Accordingly, one clean sweep with a knife was Mr. Liston's operation. His patient recovered; but it will be readily seen by what follows that Dr. Wiblin was amply rewarded for preferring a more careful and scientific operation. Now that pain can be neutralised by chloroform, and hæmorrhage be restrained by a clamp, it would be a pity to go back to forms of operation justifiable enough before those measures were known; and I know nothing more truly confirmatory of the rapid progress of Surgical art, than a comparison between Mr. Liston's operation, thirty years ago, and Dr. Wiblin's.

I believe a case of this tumour was operated on by Mr. More O'Ferrall, of Dublin, but have not the reference at my command.

As a proof of the prevalence of scrotal tumour in India, it may be mentioned that out of 261 greater operations, performed by Dr. Esdaile, of Calcutta, no fewer than 200 were cases of this tumour of all sizes, from 10 lb. to 103 lb.; and in these cases the genital organs were always dissected out unless the tumour was very large indeed. But considering the bulk of the coverings, and the difficulty of ascertaining exactly the absence of hernia, it is a wonder that patients whose tumours are "decapitated," as Dr. Esdaile calls it, do not sometimes come to grief.

Dr. Webb's "Indian Manual of Operative Surgery" contains a capital method of operating, which had evidently been consulted by Dr. Wiblin. The two cases of elephantiasis scroti removed by operation by Dr. Fayrer of Calcutta, and reported in the *Medical Times and Gazette* of September 13, 1862, also seem to have furnished a very useful precedent.

Dr. Wiblin's patient was named Frost, a sallow, but healthy-looking Englishman of 40. The disease had lasted sixteen years, and had produced a most formidable-looking tumour, hanging down below the knees. The patient was during last month in King's College Hospital, where he was seen by many of the leading London Surgeons. He then returned to Southampton to be under Dr. Wiblin's care, and as that gentleman is not attached to any public institution, he was received into a most commodious little house, lent for the purpose by Mr. Stebbing, a magistrate of Southampton, of whose benevolence and public spirit this is not a solitary example. On Sunday, according to arrangement, the train from London brought a good number of Surgeons anxious to assist at or to see this operation, and they were joined by an equal number of their brethren from Southampton and its neighbourhood; but as every part of the operative proceedings had been planned with the greatest forethought and care, so especial pains had been taken that the light and ventilation should not be interfered with by the lookers-on, as was the case with Mr. Key's unfortunate patient. For some hours before the operation, the tumour had been raised as much as possible by a pulley whilst the patient was lying on his back, and had been covered with ice, for the double purpose of sending back into the patient's veins any blood which might be stagnating in the mass, and likewise of preventing hæmorrhage. Care had also been taken to return a hernia, which protruded into the tumour on the left side. A very efficient tourniquet was provided in the shape of a magnified clamp, *à la* Spencer Wells, which consisted of two movable parallel bars. This, with a screw

at each end, was applied to the root of the tumour; and whilst these preliminaries were adjusted, chloroform was cautiously administered by Dr. Palk; and as the patient took a large quantity to quiet him, full twenty minutes were occupied in inducing a full but not too profound state of anæsthesia. The operation began at twenty minutes past two, by Dr. Wiblin passing a eatling up the canal of the prodigiously distended prepuce, and slitting it up. The incision was continued upwards along the dorsum penis, and that organ was carefully dissected out, and an attempt made to pass a staff; but as it was not easily effected, the attempt was given up, in order not to lose time. This constituted the first stage of the operation. The next was, to cut down through masses of thickened and infiltrated areolar tissue to the right cord and testicle: immense volumes of liquid trickled out at each stroke of the knife, but it was not blood, but only the serum with which the hypertrophied mass was infiltrated. After cautious dissection through layers of strange-looking blubber, the testicle was reached, laid bare, and isolated, and carefully held aside with the penis for preservation. This was the second stage. Then began the third, by a similar attempt to isolate the left testicle. But so new and strange was the appearance of the parts, that the testicle was cut into before it was recognised, and a greater mischance followed. In pursuing the dissection, a mass of blood-red tissue was laid bare, which evidently was not hypertrophied cellular tissue. A little examination showed that a hernial sac, containing a coil of irreducible intestine, had been reached. This was a sort of mishap, but owing to the careful planning and execution of the operation, no harm was done. The next stage consisted in amputating the bulky mass of the right side of the tumour; that of the left followed, with the exception of the hernial sac and the tissues covering it. This tremendous operation occupied twenty minutes, and twenty-five more were consumed in tying vessels, bringing together the edges of the wound, trimming off superfluities, and dressing the wound. An hour after the operation the patient was quietly asleep. Dr. Wiblin was supported by Messrs. Adams, Henry Smith, Mason, Speneer Wells, J. F. Clark, Peregrine, Park, Druitt, Carr Jackson, Frank, Part, Barnard Holt, etc., from London; and by Messrs. Mayo, of Winchester; Elliott, of Chichester; Bushnan, of Laverstock; Simpson, Palk, Cheeseman, Ware, Oxley, Nunn, Chapman, Shorto, Summers, Ross, Martin, Dusautoy, jun., etc., of Southampton; Dr. Seller, of Edinburgh; Dr. Orsborn, of Bitterne; Dr. Marston, Haslar Barracks; Professor Braune, of Leipsic; Dr. Schuyler, Woolstone, ete. etc.—in all about fifty members of the Profession. The tumour weighed 28 lb. (fluid, about a gallon, some say three quarts, say 8 lb. more), in all, I should say, 35 lb. to 38 lb. A full report will be presented to the Royal Medical and Chirurgical Society. Meanwhile, I may say that some vomiting occurred at intervals during the next day or two, but that on Thursday, the 25th, at 1 p.m., the patient was reported as "doing well."

THE PROVINCIAL SCHOOLS.

The Queen's College and Hospital, Birmingham. —Medical Department.—A complete education, qualifying for all the Examining Boards and the Public Services (without residence elsewhere), may be obtained. The total expenses of Leetures and Hospital Practice, £70, paid by instalments, if required. The Academical year will commence on October 1. A full prospectus may be obtained on application to Professor Dr. Wade, 16, Temple row; or Professor Sands Cox, 24, Temple-row, Birmingham.

Sydenham College Medical School, opposite the General Hospital, Birmingham. —A complete Medical education is afforded at this Institution. The Winter Session eommences on October 1. Composition fee for all the Lectures and Hospital Practice required by the College, Hall, and Royal College of Physicians, £75 12s. Further particulars may be obtained from the Principal, Dr. Bell Fletcher, Waterloo-street.

Bristol Medical School.—The Session eommences October 1. Fee for perpetual attendance on the Lectures, excepting Practical Chemistry, £47 5s. Practical Chemistry (one eourse), £3 3s.

Bristol Royal Infirmary.—Surgeon's pupil for three years, £26 5s. Physician's pupil, perpetual, £25.

Bristol General Hospital.—Surgical Practiee, perpetual, £20. Physician's practice, perpetual, £20. Further particulars to be obtained from Dr. G. Forster Burder, Hon. Sec. to the School.

Hull and East Riding School of Medicine and Anatomy, Kingston-square.—Session 1862-63.—The Winter Session will commence on Wednesday, October 1, 1862. Perpetual to all the Lectures, except Chemistry, £12. Chemistry, one Session, £5 5s. Practical Chemistry, £2 2s. Attendance at the above Lectures and at the Hospital, which contains 152 beds, will confer the same qualification as is obtained in the Medical Schools of London. Further information may be obtained from Mr. R. M. Craven, 14, Albion-street, Hull.

Leeds School of Medicine.—The Session commences October 1. Fee to all the Courses required by the Examining Bodies, except Practical Chemistry, £42. Practical Chemistry, £2 2s. Attendance at the above Lectures will confer the same qualification for Examination as is obtained in the Medical Schools of London. The terms of attendance on the Practice of the Infirmary, the House of Recovery, the Dispensary, and the Eye and Ear Infirmary, may be known on application to the officers of those Institutions. Further particulars may be obtained from the Treasurer, Mr. Samuel Hey, Albion-place.

Liverpool Royal Infirmary School of Medicine.—The Session of 1862-63 will commence on Wednesday, October 1, when an Introductory Lecture will be given at 2 o'clock, by Dr. E. Whittle. The fee for all the Lectures (including Practical Chemistry) required by the College of Surgeons and the Apothecaries' Hall is £45, payable in advance. Hospital Practice:—Fees for Medical and Surgical Practice for three years, £36 15s. Further particulars to be obtained from Mr. F. D. Fletcher, Registrar.

Northern Hospital, Liverpool.—Fees for Hospital Practice, perpetual, thirty guineas. For further particulars apply to the House-Surgeon, Mr. Heelas.

The Manchester Royal School of Medicine and Surgery, Faulkner-street, behind the Royal Infirmary. —The Winter Session will commence on Wednesday, October 1, at Twelve o'clock; when an Introductory Address will be delivered by Dr. W. Roberts. Perpetual fee to the whole of the Lectures required to qualify for Examination at the London University, the Royal Colleges of Physicians and Surgeons, and the Apothecaries' Company, forty guineas. Hospital Practice, full period, £31 10s.; £21.

College of Medicine, Newcastle-upon-Tyne.—The Winter Session commences on October 1. Perpetual fee for all the Lectures qualifying for the Licence in Medicine and the Mastership in Surgery of the University of Durham, the Membership of the Royal College of Physicians, the Diploma of the College of Surgeons, and the Licence of the Apothecaries' Society, payable on entering to the first Winter Session, forty-four guineas. Hospital Practice, perpetual fee, £17 17s. Further information may be obtained from the Secretary, Dr. T. F. McNay.

Sheffield Medical Institution.— The fees for all the Lectures required by the College of Surgeons and the Society of Apothecaries will not exceed £42. This, however, is exclusive of the fee for Practical Chemistry, which must be subject to special arrangement with the Lecturer. The terms of attendance on the Practice of the Sheffield General Infirmary:—Eighteen months' Medical, £15 15s.; three years' Surgical, £21. The fees for attendance at the Sheffield Public Hospital and Dispensary may be known on application to the officers of that Institution.

New Works.—Mr. Churchill's October list of publications promises well. We are led to anticipate a volume of Lectures on Surgery, by Mr. Lawrence, the veteran Surgeon of St. Bartholomew's; Dr. Tweedie's Lectures on Fever; the completion of Dr. Sibson's Medical Anatomy; a treatise on Gallstones, by Dr. Thudichum; a work on the Diagnosis and Treatment of Diseases of the Ovaries, by Mr. Spencer Wells; a treatise on Army Hygiene, by Professor Parkes, and a Medical work on China, by Deputy-Inspector Gordon. These are only a few of the more important contributions to Medical literature specified. There seems good promise of the commencing literary session producing a rich harvest.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, September 11 and 18, 1862:—

Arthur Calcutta White, Rawreth, Essex; Anthony John Newman, Newport, Monmouth; Abrabam Bowerman Kernot, Great Wakering, Essex; William Rhys Williams, Stotfold, Baldock; Thomas Hodson, Cocking, Essex; Robert Easey Threadgale, Heveningham, Suffolk; Richard Hodges Leigh, 59, Barbican, London; Robert Meadows, King's College; Charles J. Renshaw, Altrincham; Ellis Jones Morris, Holyhead; Francis Morris Foster, Hull; Thomas Burnet Temple, Stockton-on-Tees; Charles Rhodes, Addison-road, Kensington; William Rayner, Uxbridge.

The following gentlemen also on the same days passed their First Examination:—

Ebeuezer Atherton, Guy's Hospital; Thomas Hewlett Worger, St. Bartholomew's Hospital; Robert John Scott, St. Thomas's Hospital; T. Carter Wigg, Charing-cross Hospital; George Eugene Yarrow, St. Bartholomew's Hospital; Josbua James, Bristol.

APPOINTMENTS.

ADEY.—Assistant-Surgeon A. W. G. Adey has been appointed Acting Civil Surgeon at Kaira, *vice* Colston.

ATKINSON.—Thomas H. Atkinson, R.N., has been appointed Acting Assistant-Surgeon to the *Sutlej*.

BAILEY.—Isaac Bailey, L.F.P.S. Glasg., L.R.C.P. Edin., has been elected Medical Officer and Public Vaccinator for the Kirton District of the Boston Union, Lincolnshire, *vice* Edward Lane, M.R.C.S. Eng., L.S.A. Lond., resigned.

BARRETT.—Richard Barrett, M.D. Qu. Univ. Irel., L.R.C.S. Edin. and L.M., L.M. Cork Lying-in Hospital, has been elected Medical Officer for the Inchageelagh Dispensary District of the Macroom Union, Co. Cork, *vice* Nicholas Warburton White, M.R.C.S. Eng., L.A.H. Dub., L.M. Dub., appointed to the Macroom Dispensary District.

BUSZARD.—Frank Buszard, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Lond., M.B. Univ. Lond., has been elected House-Surgeon and Apothecary to the General Infirmary, Northampton, *vice* Mr. James Foster Gray, F.R.C.S. Eng. (exam.), L.S.A. Lond., resigned.

CHOLMELEY.—William Cholmeley, M.D. Univ. St. And., M.R.C.P. Lond., M.R.C.S. Eng., has been appointed Lecturer (jointly with Dr. Leared) on the Principles and Practice of Medicine at the Grosvenor-place School of Anatomy and Medicine.

COLLIGAN.—Hugh Colligan, L.F.P.S. Glasg., has been appointed Resident Surgeon to the Paisley Infirmary and Dispensary, *vice* Thomas Logan, M.D. Univ. King's Coll. Aberd., L.F.P.S. Glasg.

CORRIE.—James J. Corrie, M.R.C.S. Eng., has been appointed Assistant-Resident Medical Officer to the Leeds Public Dispensary, *vice* Joseph Hainsworth, M.R.C.S. Eng., resigned.

CROCKER.—Assistant-Surgeon H. Crocker, M.D., has been appointed to the temporary Medical charge of the 4th Infantry, Hyderabad Contingent, *vice* Assistant-Surgeon Williamson.

COX.—Dr. C. L. Cox, officiating Civil Assistant-Surgeon at Muttra, has been placed in charge of the Gaol at that station, and invested with the powers of a magistrate to be exercised within the precincts of the Gaol.

DYMOCK.—Assistant-Surgeon Dymock has been appointed to officiate, temporarily, as Assistant-Surgeon, European General Hospital, Bombay, *vice* Mead.

FENN.—Edwin Fenn, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N. (seniority June 8, 1861), has been confirmed to the *Chameleon*.

FYFE.—George Fyfe, M.D., L.R.C.S. Edin., has been elected House-Surgeon to the General Infirmary, Chester, *vice* Edward Stokes Roberts, jun., M.R.C.S. Eng., resigned.

GREGORY.—Bradley Gregory, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon, R.N. (seniority, July 1, 1859), has been appointed to the *Sutlej*.

GREENWOOD.—Thomas Frederick Greenwood, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Fourth and Fifth Districts of the Southwell Union, Nottinghamshire, *vice* Henry Richard Smith, M.R.C.S. Eng., L.S.A. Lond., resigned.

HALDANE.—Daniel Rutherford Haldane, M.D. Univ. Edin., F.R.C.P. Edin., has been elected Lecturer on the Practice of Medicine at Surgeons' Hall, Edinburgh, *vice* William Tennant Gairdner, M.D. Univ. Edin., F.R.C.P. Edin., appointed to the Chair of the Practice of Medicine in the University of Glasgow.

HAMILTON.—William James Hamilton, M.D. Univ. Glasg., L.R.C.S. Edin., Surgeon R.N. (seniority February 17, 1858), has been appointed to the *Severn* (additional).

HEATON.—C. W. Heaton, F.C.S., has been appointed Professor of Chemistry at the Charing-cross Hospital Medical College, *vice* Richard V. Tuson, F.C.S., resigned.

HENDERSON.—Joseph Henderson, L.F.P.S. Glasg., M.R.C.S. Eng., and L.M., has been elected Medical Officer to the Lower Deptford District of the Greenwich Union, *vice* Edward Downing, M.D. Erlangen, L.F.P.S. Glasg., L.M. M.R.C.S., Eng. and L.M. L.S.A. Lond., resigned.

HOBART.—Samuel Henry Hobart, B.A. and M.B. Trin. Coll. Dub., M.R.C.S. Eng., L.M. Combe Lying-in Hospital, having sufficiently recovered from his illness, has resumed as Medical Officer to the Cork Centre Dispensary District of the Cork Union, the duties of which were performed during his absence by Dr. William Peterson Bernard, L.R.C.P. Edin., L.F.P.S. and L.M. Glasg., L.M. Cork, up to the time of the death of the latter, and afterwards (for a short time) by Dr. T. Shinkwin.

MAJOR.—Harry Pike Major, M.D. St. And., M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Hungerford District and the Workhouse of the Hungerford Union, Berks, *vice* Robert Delafosse Shield M.R.C.S. Eng., L.S.A. Lond., resigned.

MATTHIESSEN.—Dr. Augustus Matthiessen, F.R.S., has been appointed Professor of Chemistry and Practical Chemistry at St. Mary's Hospital Medical School, *vice* Mr. Frederick Field, F.R.S.E., resigned.

MEAD.—Assistant-Surgeon C. C. Mead has been appointed Acting Deputy Medical Storekeeper, Bombay.

NIBLETT.—Stephen Berry Niblett, L.R.C.P. Edin. (exam.), L.F.P.S. Glasg., and L.M. L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Kilsby District of the Rugby Union, Warwickshire, *vice* Charles Whitefield, M.R.C.S. Eng., L.S.A. Lond., appointed to the Crowland District, Peterborough Union, Northamptonshire.

NISBET.—Dr. A. C. Nisbet has been appointed to officiate temporarily as Civil Surgeon at Akyab, British Burmah.

NOBLE.—John Noble, Assistant-Surgeon R.N. (seniority May 18, 1855), has been appointed to the *Phœbe*.

ONION.—John Onion, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Edgbaston District of the King's Norton Union, Worcestershire, *vice* Thomas Williams, M.R.C.S. Eng., L.S.A. Lond., resigned.

PRENDERGAST.—Dr. Joseph Samuel Prendergast, Lucknow, has been appointed to take charge of the Inspector General's office at Calcutta, *vice* Dr. Tice, C.B., Deputy-Inspector General of Hospitals, on sick leave, and since deceased.

PUCKLE.—George Puckle, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer of Health for Lambeth, *vice* William Odling, M.B. Univ. Lond., F.R.C.P. Lond., F.R.S., resigned.

REMINGTON.—Assistant-Surgeon J. S. Remington has been confirmed as Residency Surgeon at Baroda, Bombay Presidency.

RICARDS.—John B. Ricards, Surgeon R.N. (seniority October 21, 1854), has been appointed to the *Galatea*.

RIDDELL.—Assistant-Surgeon G. D. Riddell, Madras Establishment, has been appointed to the Medical charge of the 5th Infantry, Hyderabad Contingent.

RISDON.—William Risdon, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer, until Lady-day, 1863, of the Dolton District, No. 2, of the Torrington Union, Devon, *vice* Wavell Arundle Dene, M.R.C.S. Eng., L.S.A. Lond., resigned.

ROBERTS.—Dr. H. Roberts, Civil Assistant-Surgeon of Seonee, Central Provinces, East Indies, has been appointed a member of the Local Fund Committee of that district.

SAUNDERS.—George James Symes Saunders, M.B. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., Assistant Medical Superintendent of the Devon County Lunatic Asylum, Exminster, has been appointed Chief Medical Superintendent, *vice* Dr. Charles Bucknill, M.D. Univ. Lond., F.R.C.P. Lond., appointed Chancery Inspector of Lunatics.

SHELTON.—Surgeon Shelton has been appointed to officiate as Deputy Inspector-General of Hospitals of the Oude, Cawnpore, Rohilcund, Sangor, and Gwalior Districts, on the departure of Dr. Prendergast.

SHELSWELL.—Daniel Shelswell, M.R.C.S. Eng., and L.M. L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for No. 1 District of the Wolverhampton Union, Staffordshire, *vice* John Major Coleman, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

SMITH.—Charles Sharp Smith, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Leadenham District of the Sleaford Union, Lincolnshire, *vice* William Newman, M.D. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., resigned.

SPRY.—Assistant-Surgeon H. W. Spry has been appointed to the Medical charge of the 18th Regiment of Bombay Native Infantry, *vice* Surgeon J. T. Glover, who has been pronounced to be unfit for further active service.

STANISTREET.—Henry Dawson Stanistreet, L.R.C.S. Irel., and L.M. L.A.H. Dub., Assistant-Surgeon R.N., has been appointed Acting Assistant-Surgeon to the *Phœbe*.

SUFFREIN.—Dr. B. T. Suffrein has been appointed to the Medical charge of the Gaol and Civil Establishments at Toungoo, British Burmah.

TANNER.—Mark Tanner, M.D. Queen's University in Ireland and St. Andrews, Scotland, M.R.C.S., Licentiate of the Royal Colleges of Physicians of London, Dublin, and Edinburgh (by exam.), etc., and Assistant-Physician to the Westminster Maternity Charity, is appointed to be Consulting Physician-Accoucheur to the Western Dispensary, *vice* Dr. Frederick, F.R.C.P. Edinburgh, etc., resigned.

TERRY.—Henry Terry, sen., F.R.C.S. Eng. (Hon.), Surgeon to the Northamptou County Gaol and House of Correction, has been appointed, provisionally, to act as Surgeon to the Northampton Borough Gaol, vacant by the decease of Charles Dodd, M.R.C.S. Eng., L.S.A. Lond.

WADE.—William Swift Wade, L.R.C.P. Edin. (exam.), L.F.P.S. Glasg., L.M. Glasg., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the townships of Sandal, Walton, Warmfield, and Sharlston, in the Wakefield Union, Yorkshire, *vice* Robert Hollings, M.R.C.S. Eng., L.S.A. Lond., whose term of office has expired.

WILKINSON.—William Henry Wilkinson, L.R.C.S., L.M. Edin., has been elected Medical Officer and Public Vaccinator for the Glasson Dispensary District of the Athlone Union, County Westmeath, *vice* George Davies, A.B., M.B., and Lic. Surg. Trin. Coll. Dublin, resigned.

WILLIAMSON.—Assistant-Surgeon B. Williamson, M.B., of the 4th Infantry, Hyderabad Contingent, has been appointed to the Medical charge of the 2nd Cavalry, during the absence on sick leave to Europe, of Assistant-Surgeon C. A. Burn, A.M. and M.D., or until further orders.

DEATHS.

BARNETT.—September 8, at Lower Gloucester-street, Dublin, John Bolton Barnett, M.R.C.S. Eng., Medical Officer to the Bala Dispensary District, Co. Mayo, aged 33.

BUNTON.—September 14, Thomas Bunton, of Quin, Newmarket-on-Fergus, Co. Clare, L.R.C.S. Irel., L.M. Dub. Lying-in Hospital.

CROSBIE.—Recently, Assistant-Surgeon P. M. Crosbie, attached to the 41st (Gwalior) Native Infantry, in Medical charge of the Gwalior Agency.

DAVIES.—September 15, at Colnbrook, Richard Edward Davies, formerly of Harewood square, F.R.C.S. Eng., L.S.A. Lond., aged 57.

DYSON.—September 20, Thomas Wilson Dyson, of Manchester, M.R.C.S. Eng., L.S.A. Lond., aged 49.

ELWIN.—September 23, Jeken Elwin, of 20, Broad-street-buildings, City, M.R.C.S. Eng., L.S.A. Lond., aged 61.

GRAHAME.—September 21, Andrew Grahame, of High-street, Lochee, Forfarshire, L.F.P.S. Glasg.

HORNE.—July 31, drowned by the sinking of a boat (in which he was with several others), from its being struck by the steamer *Frere*, Sub-Assistant-Surgeon H. Horne.

LYNN.—September 17, suddenly, in West Leith Gate, Doncaster, on his way from London to Northumberland, Andrew Lynn, Surgeon Dentist, aged 28.

MARSHALL.—September 21, Edward Joseph Marshall, of No. 30, Bridge-street, Walsall, Staffordshire, M.R.C.S. Eng., and L.M., L.S.A. Lond., aged 29.

MCCLOY.—August 8, from cholera, at Kussarey, near Meludpoer, Assistant-Surgeon McCloy, of the Bombay Medical Establishment.

MOORE.—September 10, at Poulton-le-Fylde, suddenly from paralysis, whilst out on his professional duties, William Moore, of South Shore, Blackpool, Lancashire, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., aged 46.

MOORE.—September 23, suddenly, found dead in bed from disease of the heart, Oswald Allen Moore, of York, M.R.C.S. Eng., L.S.A. Lond., Surgeon to the York Dispensary and to the Institution for Diseases of the Ear, aged 44.

MONTEITH.—July 1, George Dalrymple Monteith, Surgeon, late Coroner, etc., of Wellington, New Zealand.

ORTON.—September 3, Reginald Orton, of Sunderland, M.R.C.S. Eng., L.S.A. Lond.

STRONG.—September 19, Septimus Strong, of the Hawthorns, Upper Tooting, Surrey, M.R.C.S. Eng., aged 25.

WEBB.—September 14, Charles Knighton Webb, of Southernhay, Exeter, M.R.C.S. Eng., L.S.A. Lond., Senior Surgeon to the Exeter Dispensary, Consulting Surgeon to St. Thomas's Lunatic Asylum, near Exeter, and Surgeon to the Devon County Prisons, aged 54.

LONDON GAZETTE.

September 12.

2ND LANCASHIRE LIGHT HORSE VOLUNTEER CORPS.—Gilbert Heyes, Gent, to be Honorary Veterinary Surgeon; dated August 4, 1862.

33RD LANCASHIRE RIFLE VOLUNTEER CORPS.—Henry Swift, Gent, to be Assistant-Surgeon; dated August 20, 1862.

September 16.

INDIA OFFICE, SEPTEMBER 15, 1862. BENGAL.—Surgeon Daniel James O'Callaghan to be Surgeon-Major; dated June 23, 1862.

MADRAS.—Assistant-Surgeon J. Reynolds to be Surgeon, *vice* Neilson, deceased; dated May 2, 1862.

Surgeon James George Fraser, M.D., to take rank from April 6, 1862, *vice* Roake, retired.

1ST ADMINISTRATIVE BRIGADE CINQUE PORTS ARTILLERY VOLUNTEERS.—John Buck Thomson, Esq., to be Surgeon; dated September 10, 1862.

MEMORANDUM.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon John Buck Thomson in the 1st Cinque Ports Artillery Volunteer Corps.

September 19.

INDIA OFFICE, SEPT. 18.—Surgeon James Kirk-Patrick, M.D., to be Surgeon-Major; dated April 30, 1862.

Assistant-Surgeon William Williamson to be Surgeon, *vice* Chimmo, deceased; dated February 26, 1862.

Surgeon William Wentworth Heude, M.D., to take rank from November 30, 1861, *vice* Currie, deceased.

Surgeon John Colebrook to take rank from February 22, 1862, *vice* Horak, deceased.

2ND LANCASHIRE LIGHT HORSE VOLUNTEER CORPS.—William Honner Fitz-Patrick, M.B., to be Assistant-Surgeon; dated August 4, 1862.

13TH LANCASHIRE ARTILLERY VOLUNTEER CORPS.—Henry Hulme, gent, to be Honorary Assistant-Surgeon; dated September 1, 1862.

1ST LANCASHIRE RIFLE VOLUNTEER CORPS.—Podmore William Jones, M.D., to be Assistant-Surgeon; dated September 1, 1862.

1ST LONDON RIFLE VOLUNTEER BRIGADE.—Assistant-Surgeon Alfred Atkyns, M.D., to be Surgeon; dated September 17, 1862.

1ST DEVONSHIRE ARTILLERY VOLUNTEERS.—Lewis Gordon Davidson to be Honorary Assistant-Surgeon, *vice* Pratt, resigned; dated September 10, 1862.

16TH DEVONSHIRE RIFLE VOLUNTEERS.—Christopher Bulteel to be Assistant-Surgeon; dated August 8, 1862.

September 23.

8TH FOOT.—Staff Assistant-Surgeon Isaac Hoysted to be Assistant-Surgeon, *vice* Yates, appointed to the Staff; dated September 23, 1862.

38TH FOOT.—Staff Assistant-Surgeon Charles Henry Young Godwin to be Assistant-Surgeon, *vice* Lewis, appointed to the Staff; dated September 23, 1862.

45TH FOOT.—Staff Assistant-Surgeon Robert Atkinson to be Assistant-Surgeon, *vice* Marshall, placed upon half-pay; dated September 23, 1862.

MEDICAL DEPARTMENT.—Assistant-Surgeon James Henry Lewis, from 38th Foot, to be Staff Assistant-Surgeon, *vice* Hoysted, appointed to the 8th Foot; dated September 23, 1862.

Assistant-Surgeon William Henry Yates, from 8th Foot, to be Staff Assistant-Surgeon, *vice* Godwin, appointed to the 38th Foot; dated September 23, 1862.

7TH SHROPSHIRE RIFLE VOLUNTEER CORPS.—John Rider, gent, to be Honorary Assistant-Surgeon, *vice* Steedman, resigned; dated September 5, 1862.

OVINE VARIOLA.—The disease in sheep has made its appearance in Berkshire.

ROYAL FREE HOSPITAL.—The Operation-day has been changed at this Hospital from Saturday to Thursday, at half-past one.

PROFESSOR PARKES, F.R.S., will deliver the Introductory Lecture of the Fifth Session of the Army Medical School, on October 1, at two o'clock.

FLINT IMPLEMENTS IN THE DRIFT.—Further discoveries have been made at Reculver by G. D. Gibb, Esq., M.D., F.G.S., who has found a pointed implement in a broken condition on the top of the cliff.

LONDON INSTITUTION.—A Course of Four Lectures "On the Class Reptilia" will be delivered at the London Institution, by Professor Owen, F.R.S., etc., during the Winter Session, commencing on November 17, 1862.

TWENTY-EIGHT Candidates proved successful at the recent Competititive Examination for Commissions in the Army Medical Department. These gentlemen have been directed to proceed to Chatham, to go through a course of practical study at the Army Medical School, by October 1 next.

AMPUTATION at the hip-joint was performed by Mr. Sampson Gamgee, at the Queen's Hospital, Birmingham, on the 11th inst. The thigh measured four feet in circumference; and, after removal, the limb weighed ninety-nine pounds,—the increase being chiefly due to an enormous enchondroma of the femur. The patient is progressing most favourably.

FOOTPRINTS IN THE CAMBRIAN.—Alleged footprints have been found in the Lower Cambrian rocks of Dalby, Isle of Man, by Mr. Taylor, who has described them in the *Geologist* for September. They are said to resemble the Protichnites of Professor Owen; but when submitted to Mr. Salter, he declared them to be inorganic, and also threw a doubt on their actually being of Cambrian age.

VACCINATION.—The public returns, as far as they are complete, show that in the year ending at Michaelmas last the number of persons vaccinated by the public vaccinators in England was but 432,806; only 425,739 were successfully vaccinated, and of this number 100,641 were above a year old. Yet the number of registered births in the year in the unions making these returns was 685,646, more than double the number of the infants under one year successfully vaccinated by the public vaccinators. The number of vaccinators was 3731.

THE Royal Mail Steam Packet Company have announced their intention of despatching one of their fastest steam-ships, the *Tamar*, to Madeira on the 20th October next. We are glad that they have decided on repeating this experiment, which was made by them, we believe, for the first time last year, as it is a great advantage to invalids and others desirous of proceeding to Madeira for the winter, that they should have an opportunity of doing so with expedition and comfort, both of which, we should think, would be ensured by the well-known character of this Company.

JUNIOR MEDICAL SOCIETY OF LONDON.—The meetings of this Society will be resumed on Tuesday evening, October 21, at the Charing-cross Hospital, and will be continued at the various Hospitals on the third Tuesday of the months of November, January, February, March, May, and June, and on the second Tuesday in December; commencing with the exhibition of Pathological specimens by the Students of the different Hospitals, after which a Paper will be read on some subject within the domains of Medicine, Surgery, or Midwifery, concluding with a discussion.

THE GLASGOW CHAIR OF MEDICINE.—Dr. W. T. Gairdner, of Edinburgh, has been appointed by the Home Secretary to the Professorship of Practice of Medicine in the University of Glasgow, vacant by the resignation of Dr. John Macfarlane. It will be a source of general satisfaction to hear of his being placed in a position for which he is so eminently qualified by his Pathological and Medical labours, and by his success as a clinical teacher. We have reason to believe that the Home Secretary, in filling the appointment, was much influenced by the high reputation which Dr. Gairdner enjoys among his Professional brethren in London. We are confident that the new Professor will justify his choice, and contribute greatly to the fame of the Glasgow School of Medicine, and be a worthy colleague of the eminent men who have raised it to its present position.

A CORONER ON CRINOLINE.—The Bristol Coroner, Mr. J. B. Grinden, has got into terrible hot water with his fellow-citizens by a remark he made at an inquest lately on the body of a young woman who had lost her life through her crinoline catching fire. The learned gentleman is reported to have said, "That absurd practice of distending their dresses

was only excusable in one particular case, and whenever he (the Coroner) saw any woman, except those of rank and importance, dressing in crinoline, he took it for granted that they were endeavouring to hide the discredit which, under peculiar circumstances, would attach to a young unmarried woman. Certainly he might be mistaken, and perhaps he was in some instances; but if a woman rendered her appearance hideous, which ought to be becoming, one could scarcely help drawing an inference which he, for one, thought very natural."

Surgical Aid to Garibaldi.—It is honourable to the English people that they should send an eminent English Surgeon to see that the popular hero, Garibaldi, was well cared for whilst wounded and a prisoner; and it shows the discretion of all parties concerned, that they selected Professor Partridge, of King's College, whose long experience as a profound Anatomist and Hospital Surgeon, and whose *savoir vivre*, and universal popularity at home, qualified him for a mission equally unprecedented and difficult. Mr. Partridge arrived at Spezzia on the 17th, and reported that Garibaldi's wound was a compound fracture of the inner ankle, caused by a ball, which laid open the joint, but did not penetrate it. He immediately telegraphed for a Salter's swing fracture cradle and a Macintyre splint; a lady sent a water-bed from Paris; a more generous diet was recommended, and the wound is now said to be suppurating favourably, and the patient awaiting a complete though slow recovery. Mr. Partridge is said to have been favourably impressed with the skill and tenderness of the Italian Physicians.

The National Osteological Collection. — The Trustees of the British Museum have recently sanctioned the publication of a "Catalogue of the Bones of Mammalia in the Collection of the British Museum." This is a most valuable work to students of Comparative Osteology, and reflects the highest credit on the perseverance, ability, and zoological scholarship of its author. Dr. J. E. Gray, F.R.S., in the preface, states:—"This catalogue contains a list of the skeletons, skulls, and other osteological specimens of the class of mammalia contained in the British Museum; and references to the works in which the entire skeletons or separate bones of mammalia are figured, not only of the species in the Museum, but of those which are still desiderata. References to the latter have been added with the view of increasing the usefulness of this catalogue to students of the osteological collection." Dr. Gray further states:—"The list of the bones and the references to the plates have been compiled by Edward Gerrard, who also prepared most of the specimens," now amounting to 4255; *i.e.*, 706 skeletons, and 3549 skulls or parts of skeletons, belonging to 1197 species.

A Miser's Death.—An inquest was held on the 4th inst., at Mile-end, on the body of William Wollaston, aged 53, a person of independent property, who died on the previous Sunday. Mrs. S. Wollaston, the step-mother of the deceased, deposed that some years ago he had been left a considerable property by his uncle, but instead of living affluently, he took lodgings at the East-end, and denied himself all comforts. He never, however, actually went without food. A few months back an abscess formed on his face, and began to eat into his cheek in a frightful manner; but though witness earnestly entreated him to allow a Doctor to be brought in to attend him, he positively refused, saying that "no Doctor should ever touch a penny of his money." Latterly he suffered dreadfully. He used to lie on the floor without any bed under him, merely resting his head on a pillow. His landlady saw him suffering so much that she bought a bottle of medicine and gave it to him. It made him much easier, and she tried to induce him to have a Doctor, but without success. Upon last Sunday evening she took him in a cup of tea, which she was in the act of giving him when his face became covered with blood, which ran on to the floor, and he died before she could fetch a Doctor. Dr. Henry said that deceased died from hæmorrhage caused by an abscess eating into an artery. With Medical attendance deceased would not have died. The jury returned a verdict of "Death from hæmorrhage."

Diplomacy and Medicine.—The following requirements for the diplomatic service may provoke an interesting comparison:—"Candidates on presenting themselves for examination on their nomination must have completed the 21st year of their age, and not have exceeded the 26th. In the case of candidates electing to undergo only one examination, such examination will comprise the following matters:—*a*. Orthography and handwriting. *b*. General intelligence, as evinced by the manner in which the candidate acquits himself, and specifically by the quickness he may show in seizing the points in papers read to him, or read over by him, once or twice. *c*. Précis. *d*. The candidate must satisfy the Examiners that he is thoroughly well grounded in the Latin grammar, and that he is able to construe and parse a portion of some good classical Latin author, and to give the derivations of words. *e*. An accurate knowledge of French grammar, fluency in French conversation, correctness of translation from French into English and from English into French, and French composition. *f*. An accurate knowledge of German grammar, a tolerable degree of fluency in German conversation, and correctness of translation from German into English and from English into German. *g*. A fair knowledge of the political history of Europe, and of North and South America, from the year 1660 to 1860 inclusive, and of the most important international transactions during that period. *h*. A general knowledge of geography. *i*. The first four rules of arithmetic and decimal fractions, as given with examples in 'Colenso's Arithmetic.' *j*. The first book of Euclid. *k*. A general knowledge of maritime and international law, to be acquired from 'Wheaton's Elements of International Law,' and the first volume of 'Kent's Commentary.' *l*. Candidates will be allowed, at their option, to be examined in Spanish and Italian in addition to the above subjects. In the case of candidates electing to undergo two examinations, the first examination will comprise the following subjects:—1. Orthography; 2. Handwriting; 3. Précis; 4. Latin; 5. Arithmetic; 6. Geography; 7. General intelligence, except as regards specific tests; 8. An accurate knowledge of French grammar, correctness of translation from French into English, and such a facility of speaking French as may show aptitude for acquiring fluency after a residence abroad; 9. An accurate knowledge of German grammar; 10. A general knowledge of the political history of Europe, and of North and South America, from 1790 to 1815, comprising an acquaintance with the most important international transactions of that period. In either case, candidates who have passed the first public examination in classics at one of the Universities in Great Britain or Ireland will be exempted from being examined in Latin."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

THE MEDICAL SCHOOLS OF LONDON.

The articles which we have published during the last few weeks on the Medical Schools of the Sister Kingdoms, and the various cities of England, have been received with so much favour, that instead of treating of the Medical Schools of London in one article according to our first idea, we shall devote an article to each. The special features and advantages of each School will be described by writers well acquainted with the subject, and such historic allusions and anecdotes as will interest the reader will be added. In our next Number we shall describe

GUY'S.

Mr. J. F. Streatfeild.—We shall be happy to receive the cases.

M.B., Dublin.—Dr. Althaus' "Treatise on Medical Electricity, Theoretical and Practical," published by Trübner and Co., 60, Paternoster-row.

A Lover of Fair Play.—We never publish communications affecting the reputation of anyone unless authenticated by the writer's card. The article on Medical Partnerships was first offered to the *Medical Times and Gazette*.

The great demands on our space compel us to postpone several important Papers and Communications. Amongst others, Dr. Mitchell's Paper on the Connexion between Plural Births and Idiocy, and Mr. Lowe's Case of Quadruple Aneurism.

We fear that no service would be rendered to the Profession or the public by further notice of the case of fractured femur which Mr. Crosby visited in the absence of Dr. Edmunds. The Profession have now the full statements of both parties, and can form their own opinion.

We are glad to acknowledge the receipt of the *York Star*, a paper which, like our old friend the *New Moon* at Dumfries, is written and printed by the lunatic inmates of the York Asylum. If this were a fair sample of all their doings and sayings, a lunatic asylum would clearly be not the place for them.

We are glad to hear that Mr. Meredith, one of the two gentlemen who, it will be remembered, were admitted by the College of Surgeons, to their examination for the diploma of membership without having attended Lectures, has just become a Licentiate of the Apothecaries' Hall, having completed the necessary attendance at Lectures and Hospital Practice at the Queen's College and Hospital at Birmingham.

Expenses of Medical Education in the University of Edinburgh.—Our Edinburgh correspondent requests us to correct some errors and omissions in his letter on Medical Education in that University. It must be remembered that the fee for a first Winter's Course is £4 4s ; for a second Course of the same subject, £3 3s. ; and the third Course is free. A saving of one guinea on each class may be gained by paying £6 6s in the first instance for a perpetual ticket. The total necessary expenses for graduation may be shortly stated thus:—

For Lectures, Anatomical Demonstrations, and Hospital	£64 1 0
Practical Midwifery	1 1 0
Practical Chemistry	3 3 0
Dispensary	3 3 0
	£71 8 0

The expenses for obtaining the Diploma of the College of Surgeons, or the double qualification of the Colleges of Physicians and Surgeons, are considerably less, amounting to about fifty guineas, exclusive of fees for Examinations, which are for—

First Examination.	£6 0 0	For double qualification.
Second Examination	10 0 0	
	£16 0 0	
First Examination.	£4 0 0	For College of Surgeons.
Second Examination	6 0 0	
	£10 0 0	

Our readers will remember the case of a Mr. Bowen, who was recently proceeded against under the Medical Act, at Ormskirk, for pretending to be a legally qualified Medical Practitioner, and, for tha purpose, putting the symbol "Sub. M.R.C.S." after his name to a death certificate. They will hear, without surprise, that the inhabitants of the villages in which he practises have subscribed a small sum to reimburse him in the fine which has been inflicted upon him. This is honourable to them in a certain sense, for it shows that they can appreciate the kindness they have received from him. But what are we to say of two clergymen who presided and sanctioned the public presentation of the money in a purse to Mr. Bowen, in the national schoolroom! It is well known that Mr. Bowen or anyone else may practise, but he may not use designations tending to imply that he is legally qualified. Anyone, also, may sign a death certificate, but he must not append a title he does not possess. It cannot be pretended, then, that Mr. Bowen was subject to persecution or civil disabilities. He freely followed his calling unmolested, although that calling is one which the law does not protect nor sanction. But he, besides, did gratuitously, on his own showing, and foolishly use a symbol which, if it meant anything at all, must have been taken to mean some kind of qualification. This is the very thing which the law expressly forbids; and he was found guilty and fined. So the case was decided by a Bench of Magistrates, and it remains to be seen if the Court of Queen's Bench will unsay it. Meanwhile, these clergymen may go if they choose, and preach about the duty of submission to lawful authority, and of obedience to the law of the land. But if some poacher or smuggler, or man who sells tobacco or spirits without a licence, is convicted, we hope they will not be too hard upon him.

We are glad to see that an ably-conducted paper, such as the *Bedfordshire Mercury*, is taking the right side in the Food *v.* Fever question, and urging not only the expediency, but the duty of applying the sewage to the soil for the production of milk and vegetables. When we said that Medical men ought to instruct the public in these matters, we might have added an expression of regret at the fact that they too often are culprits, and acquiesce in the present waste of manure and want of food. The clergy are still more to blame, because they are teachers by profession, and have the best precedents before them in the Bible. But amongst clergymen we must single out the Rev. H. Moule, of Fordington, near Dorchester, whose experiments on the deodorising power of earth, as detailed in his pamphlets, "Manure for the Million," and "National Health and Wealth," ought to be made known in every parish in the Kingdom. This is a tract which the "Ladies' Sanitary Association" ought to circulate,—they have spent money on far worse ones. A "Society for Promoting the Use of Sewage, and for the Conversion of Filth into Food," would be quite as useful as some Missionary Societies that we could name. But, after all, Editors of country papers can do very much. It may happen that the newspaper may be the only means of instruction to which the small farmer, the market gardener, and the farm bailiff submit themselves. Such men often do not read, and hate to be taught by anyone who assumes superior position and a right to teach. But let them see that the man who gives them news, and tells them how the world wags, is impressed with the value of sewage, the wickedness of filthy, fever-breeding cesspools, and the national wealth to be gained by the prompt application of human excrement as manure to the soil, and he will begin to scratch his head and rub his eyes, and inquire about it. A man who weekly addresses hundreds or thousands of his fellow-countrymen has great opportunities, and equal responsibilities.

"What's One's Meat is Another's Poison."

Sketches of the Natural History of Ceylon, by Sir J. Emerson Tennent, K.C.S., etc.—Page 242, *Note* 4.—"The hornbill is also frugivorous, and the natives assert that when endeavouring to detach a fruit, if the stem be too tough to be severed by his mandibles, he flings himself off the branch so as to add the weight of his body to the pressure of his beak. The hornbill abounds in Cuttack, and bears there the name of '*Kuchila-kai*,' or '*Kuchila-eater*,' from its partiality for the fruit of the *Strychnus nux-vomica*. The natives regard its flesh as a sovereign specific for rheumatic affections."—*Asiat. Res.*, Ch. xv. p. 184. In another place speaking of the mongoos and their not being liable to be hurt by poisonous serpents, the author says, page 40:—"Such exceptional provisions are not without precedent in the animal economy; the hornbill feeds with impunity on the deadly fruit of the strychnos; the milky juice of some species of euphorbia, which is harmless to oxen, is invariably fatal to the zebra; and the tsetse fly, the pest of South Africa, whose bite is mortal to the ox, the dog, and the horse, is harmless to man and the untamed creatures of the forest."

Errata.—Page 281, column 1, last line of Edinburgh letter, *for* "log" *read* "coy."—At page 294, column 2, line 6, *for* "Nephilas" *read* "Uiphilas."—In the List of Introductory Lectures, p. 312, *for* "Mr. Headland" *read* "Dr. Headland;" *for* "Dr. Edwin Fox" *read* "Dr. Wilson Fox."

Carbazotic Acid.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It would be very interesting to myself, and doubtless to many others, if Mr. Aspland would give more minute details concerning the properties, uses, etc., of carbazotic acid and carbazotate of ammonia.

I am, &c.

Witheridge, North Devon, September 15. S. Burrows.

Rennet Wine.

(*From a Physician.*)

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to call the attention of the Medical public, through your widely-circulated Journal, to the use of the above remedy in cases of gastralgia, dyspepsia, etc. It has recently been introduced into practice by Dr. George Ellis, of this city, and I may say that I myself have derived greater benefit from it than from any other remedy in the Pharmacopœia, having been subject to attacks of gastralgia for the last fifteen years, and been relieved instantaneously by it. I still continue to use it as a prophylactic. I am, &c.

Dublin. "Orthos."

Idiopathic Tetanus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the case reported in your Number of September 13, there is a singular train of argument. We are told to be cautious in expressing opinions of poison having been given in cases like Palmer's, as idiopathic tetanus may come on from loaded bowels, etc. Yet, in the record of the Upton case, there is no evidence whatever that the individual had not taken strychnia,—a drug which most gamekeepers keep for poisoning vermin.

When we consider the immense number of people who have distended colons and yet never have tetanus, and when we further consider the fact, that in real cases of tetanus, whether traumatic or idiopathic, death rarely—if ever—results in two hours; and that, in cases of poisoning by strychnia, it commonly occurs within a few hours, it seems much more reasonable to conclude that the death in question was due to poison than to a distended colon. Will Mr. Hewett tell us whether he made any analysis of the blood or other parts of the deceased. I am, &c.

Aliquis.

Paralysis of the Upper Extremity from Spinal Disease.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The inquiry I make may not, I trust, be uninteresting. On this account I will feel thankful for your giving me a place in your columns. During the last six weeks I have met with two cases of paraplegia; both came on without any premonitory symptoms; in both the right arm was affected. The possible cause of one is attributed to cold; the cause of the other, disease of the spinal cord. The use of the arm has, in both cases, been recovered, but in neither has perfect use of the limbs been re-established, though ordinary methods of treatment have been employed. We are told by Medical writers, that disease of the hand is more readily cured than disease of the lower extremities, if dependent on cerebral disease. The cases adduced I believe to be dependent on spinal disease; yet the arm rather than the legs has regained its power. For those who have an opportunity of studying diseases of this nature, it may not be uninteresting to inquire into the cause of the paralysis of the arm, as no pains were ever complained of above the lumbar vertebræ, neither has there been any constriction of the chest which *per se* would be indicative of disease in the dorsal region. In neither instance was the bladder in any way affected, nor was there any priapism. The only want felt is inability to move the feet. Strychnine has been given without benefit. Any information as to future treatment, and as to the probable cause of the paralysis of the arm, will be thankfully received. I am, &c.

Cecil-street, Limerick, Sept. 15. T. B. Moriarty, A.B., M.D., etc.

The Manchester School.—Tribute to Mr. Jordan.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your Manchester correspondent, in making honourable mention of the Medical School as being the first Provincial School established, and associating with it Mr. Turner, the founder of it, has, in paying this passing tribute of praise complimented one at the expense of another, or rather has at least by an omission dissociated a name which is both honourable to Manchester and the Profession—the name of "Jordan." It would have been an acknowledgement not unworthy his age and position to have introduced it, though not necessary, from not being immediately connected with the present School; yet remotely he has laid the foundation

of Medical tuition, he was the first anatomist out of London, he taught an exclusively anatomical class before the existence of any Provincial School, and before Mr. Turner came into residence. The new settler and the original teacher became rival anatomists, and each party became the founder of his own School: the Schools became organised, and ultimately amalgamated by the predominant zeal and transcendent talents of Mr. Turner.

Without wishing to detract from the meed of praise due to Mr. Turner, the name of Jordan will ever be remembered with veneration by his oldest pupils; his originality of conception and aptitude and willingness to inform the young tyro, has indelibly endeared him to the hearts and minds of his class. It is from these considerations alone that I presume to suggest them as an appendix; as anatomy is the foundation of all Medical lore, so Mr. Jordan, the first and oldest provincial anatomist, is intimately connected with the foundation of the first Provincial Medical Institution. Jordan may be said to be the father of anatomy in the Provinces.

No intentional wrong is imputed to your correspondent. If you have room for these remarks and you deem them not out of place, you will oblige,

One of the Old School.

September 17.

Coroner's Economy.—The Judge and Medical Witness in One.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—For many years past the Coroner of the district in which I reside has been in the habit of holding inquests without calling to his aid, or apparently requiring Medical evidence as to the cause of death; at all events, it has been the exception and not the rule for a Medical man to be called upon to give evidence touching the death of the deceased. The last case that occurred on which an inquest was held is the following:—A child of an innkeeper, aged 3 years, early in the morning after the parents had risen, drank nearly a half-pint of rum from a bottle which had been carelessly left in the bed-room. Not long after drinking the spirit the child became comatose, and remained so until the following day, when I was sent for. On my arrival I found the child quite unconscious, and evidently fast sinking from alcoholic poisoning. I had recourse to such remedies as I thought applicable, but without avail; the child died about twenty-four hours after first seen by me. I reported the case to the Coroner of the district, whose deputy attended, held an inquest without requiring Medical evidence, and directed the jury what verdict to give. Many cases similar to the foregoing I could mention if necessary. My object in bringing this matter before the notice of the Profession and you, Mr. Editor, is to ascertain under what circumstances, if any, a Coroner is justified in dispensing with Medical evidence. It seems to me that the Medical testimony as to the cause of death ought to be made the *sine qua non* of every inquest; for, I presume, the object of holding a Coroner's inquisition is not only to ascertain if the deceased died from natural causes, avoidable or otherwise, but also to find out, if possible, the immediate cause of death.

The Coroner assigns as a reason for not oftener calling Medical evidence, that the county magistrates grumble at the fees, and threaten to disallow the expenses. But surely, Sir, if it is necessary to hold an inquest at all, the evidence ought to be most ample and conclusive.

I shall feel obliged for your comments on a subject which so intimately concerns the Profession,

I am, &c.

September 23. J. G. H.

An Hospital for St. Andrews.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your leading article upon "Medical Education at St. Andrews" begins thus:—"Although the University of St. Andrews does not contain a complete Medical School," etc. Now it is upon these few words that I, as a Graduate of St. Andrews, wish to comment. And, first of all, I would inquire, Why a complete Medical education cannot be obtained at St. Andrews? The answer is, that, although there are several Medical Professors there, there is no Hospital in this ancient city; and, consequently, Hospital Practice must be taken out elsewhere. Now, it is obvious that so long as there is no Hospital a complete Medical School cannot exist. Lectures and Hospital Practice must be attended simultaneously; it is quite impracticable for students to attend Lectures first and Hospital Practice afterwards. It seems to me, then, that the obvious plan is the erection of an Hospital at St. Andrews, the Physicians and Surgeons of which might also be Professors in the University. With the exception of London, St. Andrews is the only University which does not educate as well as examine: a University which only examines and confers degrees, but half fulfils its functions. Such an institution is a stepmother rather than an *Alma Mater*.

I would then respectfully suggest to the authorities at St. Andrews and the public generally, the advisability of erecting an Hospital in that city, which would not only render the course of Medical education there complete, but would also be a great boon to the city and neighbourhood. It need not contain more than the number of beds required to have it recognised by the different Medical Corporations, say 100 or 120.

But then the important question arises,—How are the funds to be raised? I think the Commissioners at present sitting might be asked to recommend the Government to give a grant for part of the amount; the inhabitants of St. Andrews, among whom are men of wealth, philanthropy, and public spirit, would also doubtless come forward with their contributions; and, lastly, I think an appeal might be made to the Graduates themselves, who are manifestly concerned in maintaining the *prestige* of that University in which they have graduated. The Hospital, once built, would doubtless be adequately supported by local subscriptions. As a Graduate myself, I would willingly contribute towards the erection of the Hospital. A Physicianship or Surgeonship in the Hospital being combined with a Professorship in the University would doubtless allure many able men to St. Andrews, who in time would raise the reputation of the University to a level with that of other Scotch Universities.

If, Sir, you will lend your powerful aid to my proposal for the erection of an Hospital for St. Andrews, you will be doing that which would greatly tend to raise the reputation of this ancient seat of learning, to enhance the value of its Medical degrees, and to confer a boon on the sick poor of the city and neighbourhood.

While writing on the subject of St. Andrews, I will take the opportunity of expressing a hope that the Senate will soon settle the question of costume for Graduates, and that the anomaly will cease of members of the same University wearing different academic costumes, each according to his own taste. Apologising for the length of my letter,

September 10, I am, &c. M.D. St. Andrews.

COMMUNICATIONS have been received from—

Mr. Lowe; Lambeth; Civis Dubliniensis; The "Bedfordshire Mercury;" Dr. Inman; Edinburgh; Dr. Mitchell; Mr. W. J. Smith; One of the Old School; Dr. J. W. Cousins; Mr. Brady; The Secretary of the Edinburgh School at Surgeons' Hall; Mr. S Gamgee; J. D.; Dr. Moriarty; Rev. H. Moule; Mr. S. Burrows; Dr. Edmunds; The "North British Daily Mail;" Liverpool; Ormskirk; Mr. A. Mackay; Mr. F. Jordan; Dr. M. Tanner; Dr. H. P. Major; Dr. Hardwick; M.D. St. Andrews; Dr. R. Stewart; Dr. J. D. McGavin; Mr. J. Z. Laurence; Dr. Knox; Dr. Ramsbotham; A Lover of Fair Play; Prof. Gulliver; Dr. F. R. Cruise; Dr. Smart; The Council and Professors of the London Hospital Medical College; M. B.; The Faculty of Lecturers at the Charing-cross Hospital; Mr. J. F. Streatfeild; Dr. Sankey; Mr. G. Lowe; The Medical Officers and Lecturers of St. Mary's Hospital; The Medical Officers and Lecturers of the Middlesex Hospital; J. G. H.; Dr. Martin; Mr. Needham; Henry Hawkins; Dr. Whitehead; Mr. J. Coombs; and Mr. Peacock.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 20, 1862.

BIRTHS.

Births of Boys, 872; Girls, 888; Total, 1760.
Average of 10 corresponding weeks, 1852-61, 1666·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	586	599	1185
Average of the ten years 1852-61	588·4	581·8	1170·2
Average corrected to increased population..	..	..	1131
Deaths of people above 90	..	..	8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	2	14	5	3	7	12
North ..	618,210	2	8	24	2	2	9	10
Central ..	378,058	..	6	18	1	3	9	5
East	571,158	8	29	12	..	4	27	21
South ..	773,175	3	10	17	..	6	15	19
Total.. ..	2,803,989	13	55	85	8	18	66	67

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·045 in.
Mean temperature	58·6
Highest point of thermometer	73·8
Lowest point of thermometer	43·6
Mean dew-point temperature	51·3
General direction of wind	N.E.
Whole amount of rain in the week	0·06 in.

APPOINTMENTS FOR THE WEEK.

September 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

30. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

October 1. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Obstetrical Society of London, 8 p.m. Papers by Dr. Braxton Hicks, Dr. Tilbury Fox, Dr. Bell, Dr. Tanner, and Dr. Richards.

2. *Thursday.*

Operations at St. George's, 1 p.m; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

3. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Mason—Dilatation of Stricture of Urethra; Removal of Tumour from the Neck; Removal of Tumour from the Leg.

Westminster Hospital.—The following Operations will be performed on Tuesday next, at 2 o'clock:—

By Mr. Hillman—Amputation of the Thigh; Immediate Dilatation of Stricture of the Urethra (three cases).

King's College, London. — Medical

DEPARTMENT.—The WINTER SESSION will COMMENCE on Wednesday, October 1, with an Introductory Lecture, at 8 p m., by Professor Fergusson, F.R.S.

Anatomy—Professor Richard Partridge, F.R.S.
Physiology, General and Morbid—Professor Beale, M.B., F.R.S.
Chemistry—Professor W. A. Miller, M.D., F.R.S.
Principles and Practice of Medicine—Professor Geo. Johnson, M.D.
Principles and Practice of Surgery—Professor William Fergusson.

KING'S COLLEGE HOSPITAL.

Nearly the whole of the large new building is now open for the reception of patients.

Physicians.—Geo. Budd, M.D., F.R.S. ; George Johnson, M.D. ; Lionel S. Beale, M.B., F.R.S. ; W. A. Guy, M.B., F.S.S.

Assistant-Physicians. — Conway Evans, M.D. ; A. B. Duffin, M.B. ; E. S. Thompson, M.B. ; E. Liveing, M.D.

Physician for Diseases of Women and Children—Arthur Farre, M.D.

Assistant-Physicians—T. H. Tanner, M.D. ; A. Meadows, M.D.

Surgeons—W. Fergusson, F.R.S. ; Richard Partridge, F.R.S.

Assistant-Surgeons—J. Wood, F.R.C.S. ; H. Smith, F.R.C.S. ; F. Mason, M.R.C.S. ; W. S. Watson, M.R.C.S.

The Hospital is visited daily. Clinical Lectures are given every week. The Physicians' Assistants, Clinical Clerks, the House-Surgeons and Dressers, are selected by examination from the Students, and are appointe without extra charge.

Warneford Scholarships.—Students who enter the Medical Department of King's College in October, 1862, will have the exclusive privilege of contending for the Scholarships founded by the late Dr. Warneford for he encouragement of the previous education of Medical Students. There will be five of £25 each given this year, two to be held for three years, and three for two years.

The subjects of examination are the usual branches of school education, viz., Divinity, Classics, Mathematics, Modern History, and Foreign Languages, but any subject except Divinity may be omitted.

For full particulars apply to J. W. Cunningham, Esq., King's College.

The Queen's College, Birmingham.

MEDICAL DEPARTMENT.

Principal—The Right Hon. the Earl of LICHFIELD.
Vice-Principal.—The Hon. and Rev. G. M. YORKE.
Warden.—The Rev. Chancellor JAMES T. LAW, M.A.

A complete Education qualifying for all the Examining Boards and the Public Services, (without residence elsewhere,) may be obtained.

The total expenses of Lectures and Hospital Practice, £70, paid by instalments, if required.

In the Junior Arts Department, Students are prepared by the Resident Professors and Tutors for all the preliminary Classical Examinations now required by the Examining Boards.

The College contains ample accommodation for Resident Students, both senior and junior, under the care of two married Clergymen, at a cost of £50 per annum, paid by terminal instalments.

The Academical year will commence on October 1, when the Introductory Address will be delivered by Professor Postgate, at Twelve o'clock.

A full prospectus may be obtained on application to Professor Dr. Wade, 16, Temple-row ; or Professor Sands Cox, 24, Temple-row, Birmingham.

Leeds School of Medicine.—Thirty-

SECOND SESSION, 1862-3.—PLAN of LECTURES.—The WINTER SESSION will COMMENCE on WEDNESDAY, October 1, 1862, when Dr. CHADWICK, President, will deliver the INTRODUCTORY LECTURE at 12 o'clock.

Physiology, General Anatomy, and Pathology, by Mr. Ikin and Mr. C. G. Wheelhouse. The First Lecture, Friday, October 3, at 12. Monday, Tuesday, and Friday, at 12 o'clock.

Anatomy, by Mr. Wm Nicholson Price, Mr. C. G. Wheelhouse, and Mr. T. P. Teale, jun. The First Lecture, Thursday, October 2, at 12. Tuesday, 10 a.m., Wednesday, Thursday, and Saturday, at 12 o'clock.

Principles and Practice of Surgery, by Mr. Nunneley and Mr. S. Hey. The First Lecture, Wednesday, October 1, at 8 p.m. Monday, Wednesday, and Friday, at 8 p.m.

Chemistry, by Mr. Scattergood and Mr. R. Reynolds. The First Lecture, Thursday, October 2, at 6 p.m. Monday, Tuesday, Wednesday, Thursday, and Friday, at 6 p.m.

Principles and Practice of Physic, by Dr. Chadwick, Dr. Heaton, and Dr. Hardwick. The First Lecture, Thursday, October 2, at 5 p.m. Monday, Tuesday, Wednesday, and Thursday, at 5 p.m. Demonstrator, Mr. T. Pridgin Teale, jun.

SUMMER SESSION, 1863, commencing May 1.

Materia Medica and Therapeutics, by Mr. Bishop.—Monday, Tuesday, Wednesday, Thursday, and Friday.

Midwifery and Diseases of Women and Children, by Mr. Smith and Mr. Wm. Nicholson Price.—Daily at 7 a.m.

Forensic Medicine and Toxicology, by Dr. Pyemont Smith.—Tuesday, Wednesday, and Friday.

Botany, by Mr. William Hall.—Monday, Tuesday, Thursday, and Friday.

Practical Chemistry, by Mr. Scattergood.—Monday and Thursday.

Operative Surgery, by Mr. Nunneley and Mr. Samuel Hey.

Application for tickets may be made to the Treasurer, Mr. Samuel Hey, Albion-place.

Registrar—Mr. C. G. Wheelhouse.

N.B.—Attendance at the above Lectures will confer the same qualification for Examination as is obtained in the Medical Schools of London. The terms of attendance on the Practice of the Infirmary, the House of Recovery, the Dispensary, and the Eye and Ear Infirmary, may be known on application to the Officers of those Institutions.

CLINICAL LECTURES, in conformity with the Regulations of the College and Hall, will be given at the General Infirmary :—In Medical Cases, by Dr. Chadwick, Dr. Heaton, and Dr. Hardwick ; and in Surgical Cases by Mr. Smith, Mr. T. P. Teale, and Mr. Samuel Hey.

CLINICAL CLERKSHIPS and DRESSERSHIPS.—Three Clinical Clerkships and Three Dresserships are at the Disposal of the Physicians and Surgeons to the General Infirmary, and are gratuitous.

Clinical Lectures are also given on Ophthalmic and Aural Practice at the Eye and Ear Infirmary, by Mr. Nunneley.

Medical Libraries are connected both with the School and the Infirmary.

St. Mary's Hospital Medical School.

—The WINTER SESSION will COMMENCE on WEDNESDAY, October 1, at Eight o'clock, p.m., with an INTRODUCTORY ADDRESS, by Dr. SIEVEKING, after which a CONVERSAZIONE will be held.

As an incentive to Clinical study, the Medical Appointments in this Hospital, including five House-Surgeoncies, have always been open to its Pupils without additional fee or expense of any kind, thus offering advantages, both Professional and pecuniary, of far more value to the Student than any system of Scholarships or Prizes.

Physicians—Dr. Alderson, Dr. Chambers, Dr. Sibson, Dr. Handfield Jones, Dr. Sieveking, and Dr. Markham.

Surgeons—Mr. Coulson, Mr. Lane, Mr. Ure, Mr. Spencer Smith, Mr. Walton, and Mr. James Lane.

Physician-Accoucheur—Dr. Tyler Smith.

Ophthalmic Surgeon—Mr. White Cooper.

Aural Surgeon—Mr. Toynbee.

Surgeon-Dentist—Mr. Sercombe.

Lectures.—Medicine : Dr. Chambers and Dr. Sibson.—Surgery : Mr. Lane and Mr. Spencer Smith.—Physiology : Dr. Broadbent.—Anatomy : Mr. Gascoyen.—Operations on the Dead Body : Mr. James Lane.—Dissections : Mr. Norton and Mr. Coombs.—Chemistry : Dr. Matthiessen.

Summer Session.—Midwifery : Dr. Tyler Smith and Dr. Graily Hewitt —Materia Medica : Dr. Sieveking.—Botany : Dr. Dresser.—Medical Jurisprudence : Dr. Sanderson.—Practical Chemistry : Dr. Matthiessen.—Ophthalmic Surgery : Mr. White Cooper.—Aural Surgery : Mr. Toynbee.—Dental Surgery : Mr. Sercombe.—Comparative Anatomy : Mr. Mivart.—Natural Philosophy : Mr. Smalley.

Clinical Lectures on Medicine and Surgery are delivered twice a week throughout each Session, by the Physicians and Surgeons. A Maternity Department is attached to the Hospital.

Students are required to perform the duties of Clinical Clerks and Dressers, in each Session, during the last two years of their curriculum.

Prizes, &c.—A Scholarship in Anatomy of the Annual value of £25 ; a Prize of £20 for Students of the first year ; Prizes in the several classes at the end of each Session of the average value of £5 5s. ; two Prosectors, who each receive £5 and a Certificate.

The fee for the Hospital Practice and Lectures required by the Colleges of Physicians and Surgeons, and the Society of Apothecaries is £89s 5s., which may be paid by instalments.

A detailed Prospectus will be sent, and further information obtained, on application to GEO. G. GASCOYEN, Dean of the School.

St. Mary's Hospital, August, 1862.

The Middlesex Hospital Medical

COLLEGE.

The INTRODUCTORY ADDRESS will be delivered by Dr. PRIESTLEY at 8 p.m., October 1.

THE MIDDLESEX HOSPITAL, having an endowed Cancer Department and Special Wards for Uterine Diseases and Syphilis, contains in the aggregate 305 Beds. There are separate Out-patient Departments for Ophthalmic Cases, for Cancer, and for the Diseases of Women and Children.

SIX APPOINTMENTS within the walls of the Hospital, with free Board and Residence, are open to those gentlemen who have completed their Education in the Medical College—namely, Two House-Surgeoncies (Fee, £21), One Obstetric and Three Clinical Assistantships (no Fee), tenable for one year. The award of these Appointments is made by means of Competitive Examination.

The arrangements for Clinical Instruction provide that every general Student, as far as practicable, shall be, during certain distinct periods, both Clinical Clerk and Dresser.

Certificates of Honour are given in each Class, and also for good Clinical Reports. Prizes are given for general proficiency. Written Periodical Examinations are held several times in the Session, the results of which determine the award of the Prizes.

The Governors' Prize, value Twenty Guineas ; Two Prizes, value Six Guineas each ; and Two Prizes, value Four Guineas each, are given for Reports in Clinical Medicine and in Clinical Surgery.

The Clayton Prize is given by Oscar Clayton, Esq., for proficiency in Comparative Anatomy.

NAMES OF THE MEDICAL OFFICERS OF THE HOSPITAL AND OF THE LECTURERS.

Names.	*In the Hospital Staff.*	*Lecturer in the College, on*
Dr. Stewart	Physician	Medicine.
Dr. Goodfellow ..	Physician	Medicine.
Dr. H. Thompson ..	Physician	Materia Medica.
Dr. Priestley	Physician-Accoucheur	Midwifery.
Dr. F. Weber	Assistant-Physician ..	
Dr. Murchison.. ..	Assistant-Physician ..	Pathology.
Dr. Greenhow	Assistant-Physician ..	Medical Jurisprudence and on Public Health.
Mr. Shaw	Surgeon..	Surgery.
Mr. De Morgan, F.R.S.	Surgeon..	Physiology.
Mr. Moore	Surgeon..	Anatomy.
Mr. Henry	Surgeon..	Medical Jurisprudence.
Mr. Nunn	Assistant-Surgeon ..	Operative Surgery.
Mr. Hulke	Assistant Surgeon ..	
Mr. Soelberg Wells ..	Ophthalmic Surgeon..	Ophthalmic Surgery.
Mr. Tomes, F.R.S. ..	Surgeon Dentist ..	
Mr. Taylor & Mr. Heisch	.. ..	Chemistry.
Dr. Woodham Webb ..	.. ..	Histology.
Mr. Sibley	.. ..	Pathology.
Dr. T. S. Cobbold ..	.. ..	Botany and Zoology.
Dr. R. Liveing.. ..	... .	Demonstrator of Anatomy
Dr. C. Galton	Superintending Registrar	
Dr. Buchheim, Ph.D..	.. ..	Modern Lang. & Classics.

General Fee for all the Lectures and Hospital Practice required by the College of Surgeons and Society of Apothecaries, £88 4s., payable by three instalments, falling due as follows :—First Session, £35 ; Second Session, £35 ; Third Session, £18 4s. The payment of the entire fee on entry renders the pupil perpetual.

Fee for Dental Pupils Forty Guineas.

For further information, prospectuses, &c., apply to Mr. De Morgan, the Treasurer to the Medical College, or to the Dean.

THOMAS WILLIAM NUNN, Dean.

OPENING OF THE LONDON MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL.

Dr. R. Martin, after briefly noticing the component parts of his auditory, and thanking the governing body of the Hospital for their continued liberality, proceeded to speak of three worthies whom it had recently lost, Mr. Stanley, Dr. Lloyd, and Rev. Mr. Wix. He traced the career of the first-named, showing how, without interest, he rose to his position by his own endeavours—how Abernethy made him in 1813 his demonstrator in Anatomy, during which office, which he held for twenty-five years, he made large additions to the anatomical preparations already collected by Abernethy, which, when presented by the two fellow-workers in 1828, formed the nucleus of the present Museum. After alluding to the additional labour which Mr. Stanley undertook in writing the first part of the catalogue, and referring to the continuations by Messrs. Paget, Savory, and Callender, he then paid a tribute of gratitude to the late Dr. Richard Farre, who, though not a member of St. Bartholomew's, presented his fine collection of specimens in Morbid Anatomy to the Museum. Then, recurring to Mr. Stanley and his appointment in 1838 as Surgeon, he observed that he devoted himself with equal ardour as before to the duties of his new office, and "was still as ever the same patient, laborious, painstaking student," until a very short time ago he died suddenly, in the very act of attending to the sick, and in the very wards of the Hospital.

Passing on to notice the late Mr. Wix, he sketched very briefly his career, until he was appointed Hospitaller in 1808, being then 37 years old. He dwelt upon his liberality of mind, and his all-pervading charity, showing how he proved his interest in his work by his giving the Wix prize. Dr. Martin recommended a change in the conditions of competition for this prize: that, whereas candidates were now confined to those within the first and third years of their studentship, he would have the prize offered, not to students, but to those who had been such, within a certain number of years after their admission to practice. He contended that better essays would be the result; that the student would not be induced to labour for the prize, to the probable neglect of his proper work, and that an incentive would thus be found for continued study in those who were no longer *in statu pupillari*.

Led by this to the consideration of the prize system generally, Dr. Martin quoted Mr. Disraeli's recent dictum, that the principle of emulation is the "origin and foundation of everything that is excellent in man." He showed with what limitations this was to be taken, and proceeded to explain how prizes are a very valuable auxiliary in education, as supplying an incentive for work.

Replying to the objection, that the best-constituted would work hard for the sake of the acquirement of knowledge, and not for prizes, he showed, first, that all students are not so constituted; and, secondly, that such an argument tells equally well against all examinations. He admitted that certain restrictions were necessary; and pointed out that special prizes—*i.e.* for some one individual subject—were dangerous, as tending to beget a too exclusive devotion to that subject. After alluding to some of the prizes on the Hospital list, and pointing out which he thought might be exempted from the category of dangerous, he proceeded to say, that the importance of Anatomy generally would have made it also an exception, but for its very alluring nature, and, again, its illimitability. In those were its danger, for it would take up the time which ought to be spent in the dead-house, and in the out-patients' room, with the Surgeons and Physicians. The restrictions which he would insist upon were, that no student should be admitted to compete for a special prize, "who had not shown, by the result of his examination in the group of subjects of his year, a competent knowledge of all. With this restriction, it would be impossible for any man to devote his whole time to a favourite subject."

He then proceeded to advocate the extension of the examinations, and the making them compulsory, showing how every argument for prizes told equally well in favour of compulsory sessional examinations.

Going then more into detail, Dr. Martin took four classes and considered them:—1. The earnest student loving knowledge for its own sake. Such a one might offer himself to a voluntary examination to have his knowledge tested; and, 2. The ambitious student. He, too, might do the same, though for a different motive, viz., to have his superiority admitted; but, 3. The painstaking, plodding student, who only labours to fit himself for the duties of his allotted station in life, would refuse to submit to an examination, either because he was too diffident, or because he knows his inferiority, or because he undervalues the prizes and misunderstands their object; and the consequence would be, that his knowledge might be inaccurate, not of the most useful character, not sufficiently precise, wanting in systematic arrangement. The 4th class, though he trusted it would be a very small one, Dr. Martin treated at considerable length. It is the man who, beginning well, becomes led away by idle companions, until, neglecting his studies, he only crams himself for his first examination, and, even if he passes, must have gained no real knowledge.

In these four classes the two first would be nothing injured; the two last would be greatly benefited by compulsory sessional examination. Such a course "would furnish a continual incentive to exertion; with most the exertion so evoked would grow into habits of industry; time would be more fully occupied; opportunities of distraction would be diminished; finally, and most important, the knowledge required would be exact, and so arranged as to profit its possessor no little in passing through the graver ordeal of the different licensing bodies."

After this the speaker touched upon the source of the dangers of London to a Medical student, affirming that they arose mainly from loneliness and want of amusements. Admitting that there were some whose temperament was such that they could stand against these, he drew a picture of a supposed more sensitive youth, illustrating the dangers of such "weary lonesomeness" by showing how easily it would beget a craving after society of any kind—how he might then be led astray, and make shipwreck altogether of his hopes.

The natural and legitimate remedy for this, Dr. Martin contended, was the collegiate system, chief among the advantages of which is "the opportunity it offers for intercourse and mutual improvement among the students." "That want of society," he added, "of which I have been speaking is supplied to the student; the nature of that society is known, not left to be determined by the chance association of an idle hour; it is that of members of his own class. Of these, some will be our student's superiors in standing and ability, some his inferiors, and some his equals. And each of these will learn and teach something to the other. By constant contact, or rather by constant attrition, corners are rubbed off, rough places are made smooth, and all gradually settle into their respective places. In such a community, too, a sort of public opinion will arise, and bring its powerful influence to bear in suppressing what is bad and encouraging what is good."

He then answered the objections which some might make to this system, observed that it already existed in St. Bartholomew's; and concluded by urging those students who were its inmates to profit by its great advantages, and by expressing his hope that it would soon be much enlarged, and that the treasurer, who had already done so much, would not stop short, but continue his good work, and extend as far as possible the means for the improvement, especially the social improvement, of the students.

THE LONDON HOSPITAL.

The address at this School was delivered by Mr. Hutchinson. He commenced by stating that one ostensible object of Introductory Lectures was to welcome those who were newly commencing the study of Medicine. To those, who for the first time were present as students of the London Hospital College, he begged to offer, on the part of the Professors, and also of those who would be now their companions and senior students, a warm and hearty welcome. He could assure them that no effort would be wanting to render the period of their student life agreeable in the present and profitable in the future. He would next congratulate them on their choice of a profession. The science of Medicine had year by year taken a wider and wider scope, and embracing what it now did there was none more deserving of zealous cultivation. In the selection of a profession a primary object of anxiety to every man ought to be as to what would be its influence upon

himself. Taken as a whole he did not believe that any pursuit more favoured the mental and moral development of those devoted to it than did that of Medicine. He would not attempt to draw any comparison with others, but would simply assert, on behalf of medicine, that, so far from requiring the repression of any faculties, it demanded the full exercise of every endowment of the human mind, and in doing this it favoured the growth of a vigorous and unwarped character.

Mr. Hutchinson then proceeded:—To say that Medical life made incessant demands on the exercise of the affections—that it brought men into contact with their fellows under circumstances the most likely to call out "the charities which soothe, and heal, and bless," was but to state what every one would acknowledge. In like manner it was not needful to insist that it gave the fullest possible play to the faculties of reason, reflection, observation, and memory. With regard to the imagination, however, there was an impression abroad which he took leave to consider as a great mistake. It was thought that men of science, and Physicians especially, ought to repress this the noblest of our mental endowments. If the truth were so, it would indeed be a humiliating fact. But, so far from it, he would undertake to assert, that in no avocation was a healthy and vigorous power of imagination more useful. Let it be remembered that there is broad distinction between imagination and fancy. The one deals with the unseen, but real; the other with that which is neither seen nor real. Imagination is, indeed, rightly considered, the art of bringing before the mind's eye a clear image of that which is not really under the sight. There may, of course, be errors of imagination just as there are errors of reasoning, errors of memory, and errors even of sight itself. Now, as the majority of objects with which we have to deal are not at the time actually under view, the power of forming clear, definite, and truthful images of them becomes of the utmost importance. It is, in fact, the only way in which muddleheadedness can be avoided, and its greater or less development constitutes one grand difference between individual men. To a good Surgeon, with a clear image-forming faculty, a man's body becomes transparent. Is a bone dislocated, he sees through skin and muscles right down to the seat of injury, and recognises the exact relative position of the now displaced parts. If it be objected that this is the work rather of memory and of previous training than of imagination proper, the reply must be, that all imagination is necessarily built on memory. It is, however, far more than mere memory, since it can advance forward from the facts furnished by memory to others, which are only to be arrived at by inference. One man is able to form very correct ideas of objects—countries, for instance—which he has never seen; whilst another requires that everything should be subjected to his eyes before he has any definite conception of it. The difference is in the power of imagination. An ingenious writer has remarked that he who first used the expression, *ex pede Herculem*, must have been a very stupid man, since it is surely not needful to see a whole foot in order to infer the stature of the man. A hair ought to suffice, and he adds, "To the mind of an archangel a pebble would be a sufficient datum on which to construct the universe." Tasks somewhat similar in nature are constantly submitted to the Surgeon, and he is every day under the necessity of reasoning from a small fact up to a great conclusion. If he cannot imagine accurately much more than is actually before him, his scope is limited indeed. To obtain a clear mental conception of any one of the processes of disease, requires a very sustained exercise of a trained imagination. Indeed the importance to the Surgeon of a careful cultivation of this faculty could scarcely be overrated. How, indeed, are the brilliant achievements of genius accomplished but by the efforts of an imagination, so exalted in grasp, so truthful in vigour, that it seems, to ordinary men, to reason without premises, and to find out truth by inspiration. The poet applies this faculty to the loftiest themes; the Surgeon uses it in a more homely field, but in both it is the same power, and in both it is indispensable. Not only is the Surgeon indebted to imagination for great assistance in the practice of his art, but he may also draw from its use the most cogent motives for industry and patience. It brings him into sympathy with his patients. Where the prosaic Surgeon sees only a stupid, ill-satisfied grumbler, the imaginative faculty will enable another to glance into the poor fellow's home, and to recognise the fact, that his impatience is solely due to the knowledge that every day of prolonged incapacity for daily work on his part, involves the deprivation of daily necessaries to those whom he most loves. Surely such an insight must be most highly calculated to increase our zeal and add zest to our success.

Amongst the advantages of the Medical Profession to those who practise it, ought also to be mentioned that its main scope consists in the pursuit of truth, and that in this pursuit it imposes no restraints whatever upon the conscience. There is every motive for candour and for honest zeal, truth—the simple, pure truth—being in every instance the only aim in view. In respect to the variety of employment which it affords, it is probably unequalled. The mind of the Surgeon need never be fatigued by dwelling too long on the same subject; and to most, not only is mental occupation afforded, but a very considerable portion of time is taken up in travel, and even in employment of the hands, securing in both instances great benefit to the mind. Of all professions, there is probably none which so nearly exempts from pecuniary anxieties as does that of Medicine,—there is none in which a man can with more certainty secure to himself all the advantages of riches. There is none, also, which can afford such a constant succession of small pleasures; in it a man does not toil wearisomely through three-fourths of his life in order to secure, by so doing, the means of enjoying the remainder: his enjoyments come in daily instalments, and the mind is thus stimulated and nourished by a regular supply of healthy pleasure.

Finally, amongst the advantages of our Profession, let it be mentioned that it affords full scope for heroism of character. Not even that of the soldier does more so. Our life is, indeed, a battle against physical misery, disease, and death; and in waging it there is ample room for the display of any amount of courage, any degree of negation of selfish interests of which we may find ourselves capable.

Having thus shown that the pursuit of Medical science was likely to exercise a good influence on individual minds, Mr. Hutchinson proceeded to remark upon its usefulness to others.

We might, with Mr. Ruskin, consider that there are "five great intellectual professions relating to the daily necessities of life which have existed in every civilised nation:—The soldier's profession is to *defend* it; the pastor's, to *teach* it; the Physician's, to *keep it in health;* the lawyer's, *to enforce justice* in it; the merchant's, to *provide* for it." All these are mutually needful to each other, and it would be ill-judged to draw any comparison between them. A moment's consideration will, however, show that to "keep it in health" is not the least important. Let us always avoid most earnestly all limited views of our Profession. The true scope of medicine is the study of life and of its imperfections, with the hope of increasing and sustaining the one, and of reducing the effects of the latter to a minimum. It aims at no less than an actual increase of the sum of human vitality—at securing that vitality on a firmer basis and making it capable of a wider happiness. Not that we do battle against all death, for none know so well as the physiologist that what we so denominate is in reality merely change, and consequent on Nature's most essential laws. We follow Nature, and in no respect wish to thwart her. But we do aim, under her favouring influence, and in pursuance of what we cannot doubt is her beneficent will, to prevent premature death, and to secure for each successive generation the fostering care of the one which preceded it. We aim to remove, as far as practicable, all physical bars to human happiness—to free the masterpiece of creation from the imperfections of physical disease.

Think for one moment of what orphanhood is in its actuality: contrast the happy home and the mother's smile with the workhouse nursery, and you will have some measure of the value of Medical art. Use your imagination; realise that this is no fiction, but that the misery consequent on the premature loss of parents is, at this moment, being endured by thousands and thousands over the length and breadth of our own land. Rest assured that much of this medicine might have prevented, and that in the future much of this medicine will prevent. I might illustrate this yet further were it needful, and might remind you of the unspeakable losses which science sustains by the frequent premature deaths of those who cultivate it; or, to select one particular example, call to your remembrance a recent death, by which it is scarcely too much to assert that a young nation, in the struggles of early existence, was left an orphan.

But it is not only with life and death that our Profession has to deal. In the attempt to economise human happiness there are no details too minute for its care. There are many

ills which, whilst they do not threaten life, are yet sufficient to destroy its enjoyment. Think with what care Medicine addresses herself to the task of removing, whenever possible, imperfections in the inestimable gifts of sight and hearing. How many thousands are there at this hour who owe their present possession of these faculties to her aid? To look for a moment on the more melancholy picture, how many thousands are there who are now deprived of them, and to whom, by a higher art, they might have been restored?

After some further remarks on this subject, the Lecturer proceeded:—And here it is needful that I should remind you that no good can be effected by mere benevolence. Science is the only power. Benevolence may supply the motive for the acquisition of knowledge; it may and ought to furnish the zeal by which knowledge is applied, but here its usefulness ends. There is no more common or more injurious mistake than the habit of allowing ourselves to suppose that we have done our best, when all that we are certain of is that we have earnestly meant well. It may have been our best for the time present; but our real best is only attained when we bring to bear all the knowledge that through the whole of our previous existence it had been possible for us to have secured. A well-meaning Surgeon may attend, with the utmost painstaking, a case of obscure injury to the hip-joint, and may yet leave a dislocation unreduced, simply because his knowledge was not adequate to the needs of the case. You may sit by the bedside of your own child, ill with pneumonia, but all your affection, all your earnestness of will can avail nothing to save its life, if your pathology and therapeutics be at fault. Better the most cold-hearted, if he be skilful, than the most benevolent, if his heart be not adequately supported by his head. I am not underrating good intentions, but only remonstrating against their being allowed to inflict injury by improper employment. The amount of human energy wasted, or worse than wasted, at the present time, through want of knowledge, is incalculable. The true use of benevolence is to nerve a man onward in the resolute pursuit of knowledge. A wise and far-sighted man may often be impelled by it to undertakings at first sight very remote indeed from its walks. A Surgeon will be sent to the dissecting-room; he will devote days and nights to the laboratory and to the study; he will come to treat his fellow-men, for the time being, as if they were so many machines; he will appear to be absorbed in dry, hard, matter-of-fact science, when possibly he is urged into those very pursuits by a depth of feeling of which those who criticise him know nothing. It is curious and very instructive to note that, as a rule, they accomplish most who begin at the greatest distance from their object. An enthusiast in benevolence, possessed of an ample fortune, and desirous to devote all to the advancement of human happiness, could, I am assured, do no better than—provided he had sufficient confidence in his mental powers—set himself apart to the study of physiology. His hope should be to become, not what is commonly understood as "a practical man," though we by no means speak slightingly of tact and ability in the direct application of knowledge, but his ambition ought to be rather to improve our knowledge of laws—to extend and strengthen the hidden foundations upon which all practical art is built.

Mr. Hutchinson next proceeded to offer various hints as to best methods of study, adverting more particularly to the importance of the cultivation of the faculty of memory and the art of observation. He then concluded his address as follows:—

"In conclusion, gentlemen, let me briefly sum up our somewhat desultory remarks. We have seen that the science of health is one of the noblest and most useful in which men can be engaged; that our calling is alike beneficial to others and favourable to our own growth as men. We have observed that it claims, and ought to obtain, our undivided and most earnest energies; that the benefits as yet secured by it are as nothing compared with what may be expected. We have seen, also, that in the future progress of Medicine it is to the dry light of science alone that we must look, cultivating always by its side, but never as its substitute, that earnest desire to apply our knowledge for the benefit of our fellow-men, which will ever keep clear in memory how very limited that knowledge is, and, instead of leading to presumption, induce great humility in its further pursuit.

I cannot find words to express how earnestly I desire that the session which we commence to-day may be one of earnest industry. I might cite many motives to such a course: I will, however, mention but one, and which, indeed, includes all—To devote to our vocation all the time, and all the labour, and all the vigour that we can command, is our *duty*

> "Thyself and thy belongings
> Are not thine own so proper, as to waste
> Thyself upon thy virtues, they on thee.
> Heaven doth with us, as we with torches do,—
> Not light them for ourselves; for if our virtues
> Did not go forth of us, 'twere all alike
> As if we had them not. Spirits are not finely touch'd,
> But to fine issues. Nor Nature never lends"——

Mark that word "lends," gentlemen; it is not "gives." It is a loan; not a gift: it is that which no honest man would ever dare to misappropriate—

> "Nor Nature never lends
> The smallest scruple of her excellence;
> But, like a thrifty goddess, she determines
> Herself the glory of a creditor,—
> Both thanks and use."

MIDDLESEX HOSPITAL.

The Lecturer, Dr. Priestley, said that, although he valued highly the privilege he possessed in being permitted to give the General Introductory Lecture, it was a duty which, for this year at least, he would gladly have escaped. He was, in truth, unwilling, as Bishop Butler said, "to come abroad in disorder, which I am dissatisfied to find myself in at home." The task of preparing an introductory lecture, at no time a light one, had been rendered doubly onerous for this occasion by the unusual pressure of occupations brought by the presence amongst us of the Great Exhibition. The hurry and bustle of life had whirled round us during these last months with such unusual velocity, that quiet had been unattainable; reflection or thought had been almost out of the question. He had, that evening, no recondite theory, no new hypothesis to offer them, no learned mystery to unfold, but he would fain, at the very outset of the Session, infuse some enthusiasm, however small, into the breasts of those who now for the first time commenced the study of Medicine—stir up some spark of warmth in those who returned to continue what they had previously begun; and it would be in keeping with the occasion if he attempted to say a word of caution and encouragement to those whose College studies had nearly ended. The Profession the gentlemen before him had chosen deserved all their reverence, and was worthy of their utmost efforts to cultivate; and, unless fully impressed with the dignity of their calling, they would, at the best, be mere sordid grovellers. Studying and practising Medicine only as a means of living, for the mere gain it brought, they would be little better than Bunyan's man with the muck-rake, engrossed by ignoble cares, content with raking together straws, regardless of the golden crown within their reach. Perhaps no stronger commendation could exist, rightly to esteem their Profession, than the fact, that it fulfilled in the highest degree the teaching of that true philosophy which holds that it is better than aught else to do good; better than the occupations of those ancient philosophers who, mighty in intellect though they were, disdained to be useful, and regarded it as man's highest privilege to exercise his mind in speculations and studies which produced no practical results, and served only to sharpen the wits of those who engaged in them. Discussions as to whether pain was really an evil, whether a wise man could be unhappy, whether we could be certain of anything, might teach men the art of disputation, but could do nothing to palliate the discomforts or assuage the sorrows of our fellow-men. One of our most eloquent writers had compared the vain attempts of ancient philosophers to solve insoluble enigmas, to attain unattainable frames of mind, to the working of an intellectual treadmill, always revolving, never advancing—to contrivances for much exertion, with no progress. The great founder of modern philosophy aptly designated the philosophy of Greece and Rome as neither a vineyard nor an olive ground, but an intricate wood of briers and thorns, from which those who lost themselves in it brought back many scratches and no food. In contrast to this, the task of the gentlemen before him would consist not in futile efforts to determine whether pain has an evil, but the highest powers of their intellect would be directed to the means for assuaging it, and to measures which prolong and save life. And if the influence of authority was needed to commend the healing art to their highest consideration, one might point, as Bacon did, to authority far higher than that of Socrates or Plato, of Seneca,

or of Cicero—to the example of Him who went about doing good, and who, in evidence of His divine origin, healed the sick, made the lame to walk, and the blind to see. The Profession of Medicine suffered nothing by comparison with those other professions and occupations with which it naturally grouped itself, and the advantages and disadvantages of which doubtless had been carefully canvassed by those whom he addressed before finally electing to become Medical Practitioners. Second in importance only to the Clerical Profession, inasmuch as the care of souls was of greater importance than the care of men's bodies, it had a more extended influence even in some respects than that. The Medical man could penetrate into regions inaccessible to the preacher. In India, in China, where caste and prejudice prohibited all intercourse with the missionary as such, the Medical man, in virtue of his art, made his way, and gained access to the most inaccessible. Dr. Livingstone, during his sojourn among the savage tribes of Africa, derived no small advantages from his knowledge of the healing art; and Medicine, as personified in him, became, not only the means of spreading Christianity, but the pioneer of civilisation. The question of Medical Missions was becoming daily a more important one, and one which deserved most careful attention. In our own country, even, the Medical man was not only esteemed by the educated and the wealthy, but he was listened to and respected by the poorest,—gained the ear of the most obdurate and vicious, and at the same time had opportunities of instructing classes of his fellow-men scarcely to be reached by the philanthropist or by the home missionary. If they turned to the Law, the sister Profession of Medicine, a comparison was in some respects favourable to the latter. True it was that the highest offices in the State were open to the competition of members of the bar, and that to attain a position which, as a legislator, gave one the opportunity of ruling the destinies of large sections of our fellow-countrymen, was worthy the highest ambition. And yet the Legal Profession was inferior, in some respects, as regards its effects on the man who practised it. It cultivated only parts of a man, inasmuch as, however well it might cultivate the intellect, it cultivated the senses little, and evoked not those higher moral qualities which must be constantly exercised in the rightful discharge of duty by the Medical Practitioner. Too often, indeed, the pleader at the bar, in the exercise of his vocation, must be painfully aware that, in proportion to the success which attended his efforts for his client, so were the distress and ruin inflicted on some one else. Sometimes, indeed, all his powers must be taxed, all his intellect called forth, "to make the worse appear the better reason, to perplex and dash maturest counsels." And if, again, they turned to the Profession of Arms, it needed little demonstration to prove that, noble and patriotic as it might be to fight for Queen and country in defence of hearth and home, the picture had a dark reverse. War carried with it ghastly horrors,—cruelty, devastation, death. The whole intellect and ingenuity of its votary was concentrated on measures for scattering destruction among his fellow-men, and his very successes brought woe and mourning with them. He would by no means imply, in any Pharisaical spirit, that the Medical Practitioner was a better man than his brother in the law or in the army; but he might, without danger of being misunderstood, assert that, unless he were naturally perverse, or had acquired accidentally some obliquity of moral and mental vision, the nature of his occupation was such that his mind must be elevated and his understanding enlarged. But it was not alone in the patient, free, and fearless exercise of duty, as between the doctor and his patient, that the Profession of Medicine shone forth as lofty in its aims and glorious in its results; Medicine had a great and ever-increasing importance in reference to the welfare of the commonwealth, and to the science of economics. Taken in a narrower sense than the actual state of things permitted, Medicine rendered most essential service to the State; for whatever saved life, or so brought health to sickly men and women, that they could be sent back even in units to the busy working world, tended directly to the welfare of the State, and increased the wealth and prosperity of the community. But there was a far wider sense than this in which Medical science might be so applied, as not only to preserve the health of individuals and save life by units, as in the ordinary course of Medical practice, but in which it might be so turned to account as to ward off disease from multitudes at once, and save entire races of men from untimely death. It was but quite recently that public hygiene and preventive medicine had begun to assert their proper claims on the attention of the legislator and the philanthropist. We had now our Sanitary Acts and our Officers of Health,—journals devoted to the advocacy of public hygiene, and associations for promoting social science. Much had been done in this respect, but much remained to be done. Jenner won a signal and glorious victory of this kind over disease and death. Taking by surprise, as it were, that dread enemy which was one of the greatest scourges the world ever knew, by a mere insignificant drop of vaccine lymph he was enabled to stop it in mid-career, and not only to hold it in check then, or for a limited period, but to bequeath such a legacy to his successors that yearly they snatched from death more people than that fratricidal and unexampled war among our cousins across the Atlantic has destroyed, and more, perhaps, than any war, or series of wars, in the same time, can contrive to destroy. He repeated, nevertheless, that much in the way of prevention remained to be done. They had yet pestilences and fevers stalking about that counted their victims by thousands and tens of thousands, and for which, possibly, preventive antidotes might be found. But there was, within their very grasp, the means of averting sickness and death from thousands who now swelled our annual bills of mortality. After dwelling with great force on the subject of the diseases of children, a large number of which he attributed to improper feeding, Dr. Priestley proceeded to say that the *rôle* of the Medical practitioner was commonly an unobtrusive one; his sphere of usefulness was chiefly in private; but there was a generally-felt necessity in these days of progress for a more prominent participation by scientific Medical men in those acts of the legislature which had reference to the public health. He believed a certain number of Medical members in the House of Commons, returned by mixed constituencies, might render most important service on many questions which must be there discussed; and if they were men of learning, experience, and discretion, they would have all deference shown to them as authorities in matters Sanitary and Medical. He would not urge the desirability of exclusively Medical constituencies. They might, he feared, foster an idea, that the political interests of Medical men were separate and apart from those of the general community; whereas it was certain that the welfare of both was intimately bound up together. A feeling of this kind was, he fancied, too ready to develope itself without additional incentives. The various Medical bills which had been brought before the Legislature from time to time had too often had the semblance of doing less for the good of the public than for the benefit of Medical corporations and their members; and the various Medical associations, formed for the purpose of redressing abuses and advancing the interests of members of the Medical Profession, were apt to dwell more on the hardships inflicted on the men themselves, than on the inevitable and graver consequences which must ensue to the public as the result of these. Vestrymen and boards of guardians could not screw down the pay, and over-exact in work from the parish Medical officer, without the sick poor suffering tenfold, because his energies were overtaxed, or his services were grudgingly and compulsively rendered. Secretaries at War or in the Admiralty could not heap indignities on Army and Naval Medical officers without deteriorating the *morale* of these men,—preventing the most efficient men entering the services, and losing the benefit of their skill in the time of their greatest need. All honour to the men who fought the battles of the Profession; but he repeated that the member Medical could not suffer without the whole body politic suffering likewise; and he should rejoice, as well for our common humanity as for the credit of their noble Profession, to see the major evil more frequently put to the front, and the effect of conditions which lowered the status of Medical men, shown oftener in the aspects they bore to the welfare of the mass. Dr. Priestley, having adverted to the privileges of the Medical Profession, dwelt at some length upon its responsibilities, and pointed out how those responsibilities had been increased by recent discoveries, the nature of many of which he elaborately, but, at the same time, very clearly explained. He also thoroughly exposed, in very felicitous terms, the various current quackeries and "pathies" by which people now-a-days are led astray. He pointed out that people swore by this nostrum or those globules, because they themselves, their wives, and children, had recovered from illness after taking them, but yet that nothing could be more fallacious in therapeutics than this *post hoc ergo propter hoc* argument. There was no disguising the fact, that it was

easier to grow rich by adopting some kind of charlatanry than by following legitimate physic; but he earnestly urged upon the young men now entering upon the Profession never to yield to such a temptation. He threw the responsibility of so much quackery in Medicine in a great measure on the public. The incessant demand for medicine, in draughts or globules; the craving for active help, when prudence suggested no meddling,—greatly fostered quackery, and, indeed, urged it on the struggling Medical man as a means of self-defence. He believed that penal clauses for quacks would not cure quackery; this could only be uprooted by teaching the public the legitimate scope of Medicine, and diffusing among the people sounder knowledge of the laws of Nature. Another temptation against which he warned them was the strong inducement which existed of overrating to the patient the magnitude of his disorder, for the purpose of rendering their own services the more important. It was, he said, useless to disguise the fact, that there were among themselves faults which called loudly for reformation, and which, so long as they continued, must shake public confidence in them. It was not creditable that Medical men should be so easily procured to take the side of plaintiff or defendant in an action at law; to find them, irrespective of the obvious merits of the case, and for the mere sake of a retaining fee, stretching conscience to the utmost in furtherance of the ends for which they were engaged, and merely to win the day. Dr. Priestley, in concluding his very able address, urged upon the students the importance of earnestness of purpose and a genuine love of truth,—of steady, earnest work and diligent study. Success might not come because they worked, but it would not come without work. The cultivation of the reasoning faculty was essential in practising Medicine, but careful and correct observation was even more important. Intellectual men, who reasoned well enough, were often led astray by the vagaries of table-dancing, spirit-rapping, and the like, because they observed imperfectly. Starting with the presumption, that because the exhibitor is respectable he is honest; looking through the coloured spectacles of some prejudice, some hope or fear, they take extraordinary facts on ordinary evidence, and logic only leads them further astray. Obstinate incredulity was equally pernicious; and the judgment should be so exercised that it steers clear of extremes. The mind of the Medical man should be exercised in other studies than Medicine, and sympathy for suffering should occupy a large place. He pointed out the desirability of learning to speak not only in public, but for so having language under control in ordinary conversation, as not to wound the susceptibilities of patients, and to be able to convey unpalatable truths or sad forebodings with the least possible pain. They needed some improvement in their present lecture system. The subjects of lecture, which could not well be reduced in number, were crowded into too short a space of time to do them justice. Hence it resulted that the student had too much thrust upon him at once, and learned less than he ought, of any or all of the branches of Medicine. Another consequence was, that some of the subjects were taught most imperfectly on account of the scanty time allotted to them. He instanced Midwifery and Diseases of Women and Children as being pressed into a short course of three months, a period quite inadequate to teach any section of the course as it ought to be taught. This state of things had, in a great degree, been brought about by the College of Surgeons, and other bodies, allowing one of its prescribed four years of Professional study to be spent elsewhere than in attendance at a Medical School. Personally he (Dr. Priestley) was under too deep obligations to the kind superintendence of an excellent master during apprenticeship to be in danger of having an undue bias against apprenticeships; but he had no hesitation in expressing the opinion, that time spent in apprenticeship should not be allowed to deduct anything from the four years spent in systematic study at a Medical School. It was but too notorious that certificates might easily be procured of antecedent apprenticeship which intrinsically meant anything but Professional study and discipline, and which served only the purpose of facilitating the entrance to the Profession of imperfectly educated men. A passage-at-arms on this very question had recently taken place between the General Medical Council and the Council of the College of Surgeons; and it was to be hoped that, ere long, those eminent men who controlled the affairs of the College of Surgeons would see their way to adopt the recommendations of the General Medical Council in this respect, both for the sake of that example in submission which all those who governed ought to be ready to exhibit to those under their control, and for the purpose of showing that they would not be in the position of underbidding for members other Colleges, whose demands approached nearer to the necessities of the case. He lived in hope that at no long distant period candidates for general practice should in England, as elsewhere, be able, with one diploma, legally to practise all branches of the Profession—when there should be no special diplomas in Medicine, Surgery, and Midwifery, each Examining Body taking guarantees that applicants for its licence were competent, not in one department alone, but in all. While advocating close application to Professional work, Dr. Priestley pointed out that the *mens sana* needs always to be *in sano corpore*, and therefore he advocated cricket clubs, volunteer exercises, and other means of recreation. He passed a high eulogium on the alumni of Middlesex Hospital for their general propriety of conduct. Of the Medical students of past days they should not judge harshly. The student of the present day had only moved on with the advanced times; and when he recollected the excellent fathers, the conscientious masters who, in early life, formed part of that student band, he was constrained to believe that whatever vagaries they committed were more the offspring of youthful frolic than of vice, and to echo the ejaculation of one who knew well their follies, but had witnessed, also, their self-sacrifice and tenderness—their devotion to the cause of the poor, the sick, and the helpless, "Rough diamonds ye may be, but jewels ye are notwithstanding."

ST. GEORGE'S HOSPITAL.

Mr. Prescott Hewett addressed himself to the younger students—to those about to join the ranks of the Profession. In doing this, he began by stating that, rightly understood and righly practised, the Profession of Medicine had two essential characteristics—self-help, self-sacrifice; and he considered it as fortunate for those who had no lack of energy and no lack of devotion, that they had chosen a profession in which success was mainly dependent upon themselves. And as bright examples of what might be done in the Profession of Medicine by well-guided self-help, he first instanced the career of Henry Gray, who, without friends, without interest, and with but very slender means, had in a few years won for himself a most brilliant position at St. George's Hospital; and he then in a few words related the life of a friend of his earlier youth, who, notwithstanding the greatest privations, had by his own exertions succeeded in gaining a high position. The first step taken by both these men, who were alike remarkable for their great energy and for their unflinching zeal, was the same; they both of them went at once to the dissecting-room, and there they worked unremittingly until they had made themselves first-rate anatomists. The course pursued by these two men was then contrasted with that taken by most students, who, instead of learning their anatomy practically by diligently dissecting, get it up by lectures and by cramming. The evils which were in after-life sure to follow such a course was then pointed out; and the necessity of a thorough knowledge of anatomy, which could only be gained by constant dissection, was dwelt upon. Stress was then laid more especially upon the value of Surgical anatomy, and the students, one and all, were urged to seize every oportunity of learning to operate upon the dead body. This, Mr. Prescott Hewett thought, was a part of their Professional education which was by far too much neglected by the London students; and after describing what was done in this matter by the Schools in Paris, he urged the Board of Examiners to make operating upon the dead body a part of their curriculum. Operating upon the dead body would not, however, he continued, of itself make a good operating Surgeon. It would give knowledge; it would give dexterity of hand; but it could not give coolness; it could not give presence of mind in the face of danger. But these essentials, the very back-bone of a good Surgeon, if not given by nature, were to be acquired.

The necessity of obtaining a thorough knowledge of Chemistry and of Physiology was then dwelt upon. But these sciences, as well as that of Anatomy, were to be viewed simply as means to an end,—as so many steps by which the student of Medicine was to prepare himself for the great business of his life—the study of disease. And here Mr. Prescott Hewett pointed out that the best, the only practical way

to study disease was to study it at the bedside of the patient, and in the post-mortem examinations as often as they occurred. The student was to spend as much time as possible in the wards of the Hospital, even from the very beginning of his studies, and to keep accurate notes of the cases that he was attending to. Such a plan involved, it is true, great and unremitting labour, and this was, no doubt, the reason why now-a-days so few students were found who would willingly undertake it; but, whatever the labour, whatever the trouble, they might depend upon the returns being in after years most ample; for men who went through this training thereby acquired the habit of keenly observing the various phases of disease, and were sure to be the best, the most successful Practitioners. The time spent in the wards was to be equally divided between the Surgical and the Medical wards; for to make a man a good Surgeon, it was absolutely necessary that he should be a good Physician. The result of the most carefully, the most dexterously-performed operation might be marred by the subsequent Medical treatment, examples of which were given; and failing in Medical knowledge, the best operators were but very indifferent Surgeons. In all this Sir Benjamin Brodie was held up as the type of a good Surgeon—the example to be followed; for to the most extensive and profound Surgical knowledge he joined, it was well known, great and accurate Medical knowledge. The student was then warned that, in the ardour of investigating the disease, he might possibly be led away, and forget the sufferer; but this was an error which a little thought would enable him to guard against, and he was to take it as his bounden duty to be ever kind, ever gentle to all those with whom he was brought into contact in the wards, and his visit, instead of being a sore trial to the patient, would be looked forward to with pleasure and remembered with gratitude.

Leisure hours the student must, and ought to have, and it was a question of vital importance how those leisure hours were to be spent. If spent in idleness or in vice, the whole life might thence get a colouring which it would never lose. But students about to enter the Profession were fortunate, inasmuch as a good general education was now demanded of them; and men who once had had given to them the rudiments of a sound education could never be at a loss how to spend any leisure time they might chance to have. The Medical man might, in his Professional avocations, be called upon to mix with the best and the most highly-educated society, and if, unfortunately, it should so happen that he had neglected his general education, he would soon find himself at a disadvantage, and bitter would then be his regrets that he had, when a student, allowed his leisure hours to escape without turning them to good account. A portion of the student's leisure time was, then, to be spent in keeping up his general education, and in this he could not do better than to make a point of acquiring a thorough knowledge of his own language first, and then of French and of German. And in conclusion, there was one subject to which Mr. Prescott Hewett strongly urged the students to devote, at any rate, some portion of their leisure hours. It was, he said, a subject to which, generally speaking, but little attention was paid by the Medical Profession, but it was a subject which, to Surgeons more especially, was, he was convinced, of the utmost importance. The subject he alluded to was the art of drawing, by which, if thoroughly learnt, not only was the hand trained to great dexterity, and to great steadiness, but the eye also was taught accurately to recognise differences in shape, and variations in colour. Added to which there was the great, the exquisite enjoyment always in store for the taste that was able to appreciate the beauties of nature and of art,—a taste, the due cultivation of which tended to make a man both happier and better, and inasmuch helped him to discharge the duties of his Profession with all the more cheerful heart.

ST. MARY'S HOSPITAL.

Dr. Sieveking commenced his Address by dwelling on the utility of the custom, prevailing throughout the civilised world, of setting apart certain days as holy days, or days of mark, on which to take a suitable retrospect and prospect—days on which we should gird ourselves afresh for the work we have to do, seek for the means of increasing our strength, or urge one another to greater exertions. For St. Mary's Hospital the 1st of October was such a *dies fastus*, which claimed a place for itself; it was the commencement of a new *Annus Medicus*, which, to teachers and taught, was equally fraught with solemn considerations. The Lecturer expressed a hope that the retrospect enjoined by the day upon himself and his colleagues might offer encouragement to proceed vigorously in the performance of their high responsibilities; that to the student the day might be a warning against past errors, and give hopeful assurance of daily increasing success; that to all it might be a day of renewed determination to work together to the achievement of the highest ends—a day of good fellowship, such as it beseemed Christian gentlemen to foster and cultivate when brought together under such circumstances as those which united the lecturers and students of St. Mary's Hospital.

Dr. Sieveking, after these introductory remarks, proceeded to offer to the students, and especially to the freshmen, an outline of the scope of Medical science, embracing its humanitarian, or social, and its scientific aspects, the dangers which beset the path of the student, and the prospects which lay before him.

The Lecturer first adverted to the motives which induced a young man to follow the Medical Profession, and thought that they were essentially to be found in that desire to benefit others, to offer comfort and help to the sufferer, which underlies the successful practice of every Medical man. The promptings of mere ambition would not urge any one to the study of Medicine, because it did not hold out that kind of reward of place and power which might fall to the lot of the lawyer or Churchman. The rewards belonging to Medicine were essentially intrinsic, to be found in the study and practice of the Profession; while the philanthropic motives that influenced the beginner would sustain and gratify the Practitioner throughout his active career. The Medical man was essentially the friend of the sick; and it would be impossible for him to practise with benefit to his patients or profit to himself, unless his work rested upon thorough and genuine sympathy. Dr. Sieveking showed that, even in Homer's time, the character of the Physician was well appreciated, for he said that—

> "A wise Physician, skilled our wounds to heal,
> Was more than armies to the common weal."

But the real social power of the healing art was not manifested till after the Christian era. One result of the social character of the Medical art was the intimacy that existed between patient and doctor, an intimacy honourable equally to both.

After pointing out the social or humanitarian aspects of Medicine, Dr. Sieveking passed to the consideration of its intellectual features. It is here, he observed, that the peculiar charm resides which fascinates the true student; it is in the search after truth, as guiding and ruling the universe; it is in that approach through Nature's works to Nature's God; in that endless display of new marvels, intimately linked with the previous achievements of scientific research, that the Medical man finds much solace and comfort in the trouble and turmoil of life, and without which, probably, the ranks of the Profession would not be recruited as they are. The Lecturer pointed out how all the natural sciences were ancillary to Medicine. Life he spoke of as a constant warfare, by which the individual defended his existence against the inroads and attacks which the inorganic world make upon him. It was man's pre-eminent distinction to be empowered to wage this war consciously, inasmuch as he was called upon to "subdue the earth." Dr. Sieveking went on to explain how and why the study of life in its healthy manifestations must precede all purely professional studies, illustrating his positions in various ways. He then went on to analyse the duties of the Medical man in regard to disease itself, as representing the circumstances in which the hostile influences overcame the normal powers of resistance. He dwelt upon the threefold character of these duties, as regarded prevention, cure, or alleviation. The prevention of disease, the Lecturer remarked, was an act of self-denial on the part of the Medical man, but one which (we might proudly put it on record) had never been imposed upon the Profession, but had been eagerly contended for against the opposition of those very corporations and fellow-citizens who were, at the cost of Medical men, to derive the most direct benefit from the self-sacrifice of the Profession. The scurvy, ague, and small-pox were cited, among other instances, as having been almost eliminated from nosology by the preventive efforts of Medical men. The Lecturer next touched upon the various points of interest connected

with the cure of disease, the endless variety of aspects which morbid phenomena presented, the large freedom of action which the Physician enjoyed in the use of his agents for combating them. In adverting to the power of medicine, the Doctor said that, owing to the somewhat indiscriminate way in which he had seen potent drugs and procedures employed during his student career, he had begun practice almost as a sceptic; but that the more he watched the action of medicines the more firmly he had become convinced of the definite power which they exert over disease. He warned against overweening confidence, which ended in poly-pharmacy on the one hand, and against public timidity, leading to indifferent do-nothingism, on the other. In regard to the alleviation of disease, Dr. Sieveking urged that it was as much a duty as either of the methods of proceeding previously adverted to. While there was life the Physician had a duty to perform; he could often assuage and relieve where he could not cure; he could always inspire moral consolation and comfort where mere drugs failed him.

The next topic to which the Lecturer drew attention was the influence of Medical studies upon the character. He controverted the assertion, that the sight of pain and suffering hardened the heart, and urged the great importance of self-control in the Physician, for the purpose of inspiring the patient with confidence. He dwelt upon the importance of genuine refinement in the Physician, as essential equally in Professional intercourse with the poor and lowly as with the wealthy and high-born. After alluding to the days in which marquises were proud of their pugilistic contests with jarvies, and of their accumulations of door-knockers, and when they might have found imitators among a certain class of Medical students, the Lecturer asserted that such things belonged to the past, and that the Medical student of the present day was well worthy to belong to a community in which civilisation had made greater strides during the past quarter of a century than during any previous part of our history. The Lecturer paid a well-merited compliment to the students of St. Mary's, past and present, on account of the gentlemanly and studious spirit that had prevailed among them since the opening of the School in 1854. In adverting to the intellectual dangers which beset the Medical student, the Lecturer dwelt upon the risk attending the unnecessary introduction of natural sciences into the domain of revealed religion. "We would say to the student," he observed, "avoid as much as possible the introduction of the crumbs of natural science that you may pick up in your student's career into the domain of your religious thought. There is more than enough to occupy your whole powers in the legitimate study of your Profession; and the earnest prosecution of your studies will daily open out to your necessarily limited vista ever-widening fields of Divine goodness and glory. Every day that brings more knowledge, should more and more realise in you the conviction, that we now 'see through a glass darkly;' and our constant intercourse with Nature and Nature's works in health, disease, and death should serve to give us the blessed assurance that the time will come when all our difficulties will be removed, and when we shall see 'face to face.'"

Dr. Sieveking's concluding observations were devoted to putting before the student, briefly, the prospects that lay before him. While no great rewards of place or power were likely to be his, he was not as dependent upon the favour and interest of others in the same way as members of other professions. On the whole, the Lecturer thought the rewards the student might look forward to would be commensurate with his deserts; and he urged that, although there were drawbacks, he was inclined to think that there was as much opportunity of happiness in the Medical Profession as in any calling: none was more useful, none allowed of greater independence of thought, in none were the opportunities so great for constant intellectual growth.

GROSVENOR-PLACE SCHOOL OF MEDICINE.

The Lecturer, Dr. Cholmeley, began by drawing attention to the meetings of old and young Practitioners and students taking place on the same day, and often at the same hour, in the various English Schools of Medicine, deriving encouragement from the fact of so many gatherings being held of men all engaged in furthering the object of Medical education. He then dwelt on the objects and responsibilities of the Profession, pointing out why they are higher and more weighty than those of any other secular profession, and how the duty of the Medical student to cultivate to the utmost all the talents given him is proportionately weighty. He enlarged on the spirit of self-sacrifice and self-denial in which men should choose, study, and practise the Profession, and on the kind of rewards they should look for; how it would bring them competence to support them in the social rank of gentlemen—the honour and esteem of honourable men—affection, and troops of friends; and the higher and purer rewards of an intellect enlarged, cultivated, and trained to derive inexhaustible pleasure from the study of the marvellous creation surrounding them—a sense of power to benefit and relieve their suffering fellow-men—an approving conscience.

He then went lightly through the course of studies appointed them, and spoke especially of the necessity of cultivating a habit of close, exact, and minute observation. It may not be given to any one of you to attain the foremost ranks of the Profession, and to carve out for himself a niche in the temple of science; but there is not one of you who may not be able to engrave his name on the stones of the temple, and this you can do by carefully and closely observing, and recording facts in Medicine. The more you work at this, the more will you appreciate its difficulty and value—the better will you be able to estimate the many influences at work complicating and colouring your observations—the more ready will you be to acknowledge the rarity of pure and simple Medical facts—facts not hewn and shaped to fit particular theories and "laws." Theories you must adopt, as links to chain together and classify observations; but let them sit loosely by you, not master you; keep them in due subordination as servants, and they will serve you well. Be suspicious of too servile a submission to "laws," so called; they are very convenient expressions of our knowledge *up* to a certain point, but they may be also regarded as concrete confessions of our ignorance *beyond* that point; they should lead you to be jealous to observe carefully and minutely, but not to reject any observation simply because it disagrees with any received theory or "law." Honestly, independently, minutely-observed facts are the stones of which the Temple of Science is built; hasty, inexact observations serve only for the foundations of quackery and false theorisation. After speaking of the various sciences the Medical man must study, and of the light thrown by each science upon every other, he insisted on the paramount importance of a diligent and persevering study of disease in the out-patient rooms, and by the bedside in the wards; but warned students never to forget, while earnestly studying there, what they owed to the patients themselves—the gentleness, delicacy, and courtesy they would desire for themselves, with gratitude and reverence, as to men suffering from poverty as well as disease, and as to the living books from which they were to learn all that would gain them success and distinction in after-life. Having set before the students the work they had to do, and alluded to the temptations and snares that would beset them, he urged them to make the best possible use of the three or four years before them; for on this would depend their fitness for encountering the anxieties and responsibilities of practice. If you neglect and throw away your opportunities of learning now, your career afterwards will be darkened by doubt and dismay. "It is not a light thing to see a fellow-creature looking into your face, and asking, in unutterable agony, whether you cannot give him a week, a day more of life; whether he must leave all that he has delighted in; whether he may not, at least, have a little while for considering where now he is to transfer all his thoughts, and desires, and affections." This is no light matter to the best, the most experienced, the most gifted amongst us; but to one who can only stand by, confused and paralysed by an ignorance he dare not confess, while his conscience cries aloud that he might have known how to help—oh, to him, gentlemen, this must be a time of intolerable agony and shame. But if you have well and honestly used your time of preparation, you will enter on the practice of your Profession with joy and confidence, eager to combat disease and death, wherever and whenever you meet them. Modestly confident in your strength and powers, but well acquainted with the endowments of the frame you have to treat, and daring often only to watch those powers do their work—content to guide and direct, without constantly interfering with them—knowing whence, and in what shape,

mischief may come, you will be strong enough to own that "they also serve who watch and wait," and you will not fear lest non-interference be taken for ignorance; you will be able to rejoice, with humility, over your victories; to sorrow, without shame, over your defeats. "Toiling, rejoicing, sorrowing," you will pass through that portion of eternity which we call time; jealous for the honour and purity of your Profession; anxious to enlarge its boundaries, and increase its usefulness; eager to improve constantly your own skill in its exercise; gratefully embracing every opportunity of extending its help to your fellowmen, rich or poor; humbly acknowledging your own helplessness without the blessing of the All-Powerful, All-Wise, All-Merciful. Thus study and practise Medicine, gentlemen, and it will bring you such a wealth of pleasure and profit, that you will daily thank God that you were permitted to choose it as your field of exertion in this life; and when your time of probation is ending, you will be enabled to hear, with calm hope and trust, that last solemn summons—"Give an account of thy stewardship, for thou mayest no longer be steward."

[The Reports of the other Introductory Lectures are unavoidably delayed until next week.]

ORIGINAL COMMUNICATIONS.

PNEUMOTHORAX A FREQUENT EVENT IN PULMONARY CONSUMPTION.

By SOMERVILLE SCOTT ALISON, M.D., F.R.C.P.
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

In my work, lately published, on the "Physical Examination of the Chest in Pulmonary Consumption," I have stated that perforation of the lung is a frequent occurrence in this disease, and have ventured to treat it as a fourth or terminating stage of the malady.

Since the publication of my book several cases of perforation have occurred under my observation, and even within the short period of the last four or five weeks I have met with evidences of this condition in no less than three amongst my patients at the Hospital for Consumption. I propose to give a short account of these three cases. The male sex gave all three examples.

Case 1.—On February 14, E. T., aged 37, came into the Hospital. He was in a state of great exhaustion, and was scarcely able to turn in bed. He had aphonia. Laid upon his back I discovered on the 18th undoubted signs of a large cavity on the left side. Amphoric-like bruits were heard and noted. Being desirous of knowing the condition of the lower and posterior regions of the chest, I had the patient raised for a moment, and ascertained the presence of extremely resonant percussion. Metallic tinkle was not present, and none of the moist crepitation usually heard at the base posteriorly in advanced mere cavity cases, could be perceived. This man, a coachman from Horsham, Sussex, died two days after my examination. On inspection after death the left lung, the seat of excavation, was found collapsed, and the pleural cavity of that side filled with air. No serum was discovered. The pleura costalis at that part, corresponding with the nipple and the axilla, was abnormally opaque, and rough to a very slight extent. A fissure in the pleura was found at a part corresponding with the middle of the scapula.

The perforation in this case was evidently of recent date. It occurred without any sudden aggravation of the sufferings of the patient. Great debility was the chief feature of the case. The patient himself begged, when I first saw him, that, as he was very weak, I would not try the "cure" until he was stronger. He lay upon his back.

The absence of liquid in the pleural cavity is worthy of note. In this respect it corresponds with the case of the girl Wearc referred to in my book at p. 291, and favours the opinion that effusion may be delayed some time.

Case 2.—Walter L., starch labourer, aged 22, from Shortenham, Norfolk, came into the Hospital on December 31, 1861, in a state of great debility. He was able to get out of bed, and occasionally walked a little in the ward. His pulse was very small and weak, yet he was not so much wasted as many patients who have reached only the second or softening stage of the disease. Diarrhœa was the source of much annoyance, and he frequently complained of pain in the right side of the chest. The heart was much excited, and a systolic mitral murmur was heard at first, but latterly became inaudible. Strumous glandular fistulæ in the neck discharged freely.

On the first examination, the usual signs of tuberculous cavity were discovered on the right side of the chest. The motion on the right was diminished; the percussion sound was very dull, and cavernous respiration, whispered cavernous voice, and humid crackle were heard. Fine crepitation at right lateral region to a moderate extent was present. Signs at inferior dorsal regions natural.

February 25.—Signs the same; humid crackle increased.

On March 4, finding the patient very weak and complaining, I decided to explore the chest again. For the first time I now heard, in the right mammary and right axillary regions, a fissure sound, synchronous with the inspiration. This sound resembled the noise that accompanies the gentle blowing in an oblique manner into a small key, or upon its edge. I recorded it as a fissure sound, and concluded that rupture of the pleura had taken place. The usual amphoric sound was not made out, nor could metallic tinkle in any degree be discovered; but I must remark that the poor fellow was so ill that I did not fully explore the dorsal regions, though that would have been very interesting to me. The mammary and axillary regions were resonant on percussion.

As I was leaving the ward half an hour after the examination, the patient suddenly screamed and writhed in bed; he sat up and inclined to the left side. He had previously lain upon the right side. I inquired of him what had occurred, but he could only say that he was in great distress, and he did not complain of pain in the right side. He appeared to suffer from that distress which a man experiences who has only a deficient amount of air to breathe. A momentary exploration of the chest, which was all that the sufferer could tolerate, afforded the same fissure sound I had heard half an hour before. This patient continued in distress, and died some three hours after.

Before leaving this patient I requested my clinical assistant, Mr. Tibbets, to listen for the fissure sound. He did so, and said it was a sound such as he had not before heard. It was certainly not the usual amphoric sound which resembles the ringing, diffused, and prolonged noise made by a bottle set into vibration by blowing upon the edge of its aperture. Neither this fissure sound nor any other of the usual recognised signs of perforation was previously made out, although the patient had been frequently examined by myself and by experienced Medical visitors of the Hospital.

On examination of the body of this patient the day after death, much tuberculous disease, with excavation of the lungs, was found. The right pleural cavity was occupied by a considerable quantity of air, and by some ten ounces of opaque serous liquid. The lung, of course, was collapsed. The pleura was moderately covered with lymph. Mr. Tibbets did not succeed in finding the aperture. The pericardium contained more than usual serum. I was unavoidably absent from the autopsy.

In this case there is much reason to my mind to believe that perforation of the pleura had existed several days at least. The presence of ten ounces of liquid and the covering of lymph must have been the work of time. Yet it is worthy of note that no auscultatory sign suggested this state of things till some three hours before death, though, be it observed, the patient had been frequently examined.

This case supports the inference dwelt upon in my book that perforation may occur without its accepted characteristic signs being developed in a degree generally held necessary to declare this condition. It teaches what upon consideration seems reasonable enough, that perforation may exist and yet for some time, say days or even a week or two, give rise to no such undue clearness of percussion, to no such abnormal signs as amphoric respiration and tinkling as are deemed necessary to suggest to the mind of the Physician of the present day the occurrence of this remarkably perilous event. It seems reasonable to admit that perforation may, in some cases, from the anatomical conditions of the pleura, be so small, so minute, as to permit only a very small amount of air to pass into the pleural cavity. Such would seem to have been the case in this example of pneumothorax.

The sudden aggravation of symptoms and suffering usually

referred to the first occurrence of perforation was in this case postponed to a period only three hours anterior to death. This may be accounted for on the supposition, not an unreasonable one, that the collapse of the lung was gradual and moderate at first and for some time, and that at the conclusion, possibly aided by exertion attendant upon my examination, more air escaped into the pleural cavity and further and fatal collapse of the lung succeeded. It appears to me worthy of note that the warm and bland atmosphere of the Hospital, which is particularly favourable in such cases, may go a long way to prevent for a time the occurrence of that severe irritative action which generally follows the introduction of air into the serous membranes of the body. Perforation is disarmed of much of its immediate danger if the air admitted into the pleural cavity be warm and unirritating.

Case 3.—The third case is very full of interest, though the patient being still alive, the evidence of pneumothorax is more imperfect in some respects than in the preceding cases. Yet though post-mortem evidence is wanting, the testimony obtained during life is far more complete than in the others, for in this case we have very metallic ringing tinkle, very metallic ringing vocal and tussive sounds largely diffused, prolonged and partaking in a very marked degree of the amphoric character, and also tympanitic percussion sound suddenly succeeding to absolute dulness up to the clavicle.

James W., a shop lad, aged 16, came into the Hospital on January 17. He reported that he had been ill three years, and had been treated for disease of the lungs and for effusion in the chest. His general condition was not very bad; he was not thin; he looked tolerably comfortable, and was able to walk about the galleries with considerable enjoyment. Some dyspnœa was a prominent symptom. The inspection of the chest offered several points full of interest and instruction.

On the 17th the movements of the left side were very slight. The heart's impulse was most felt at the second and third *right* interspaces,—points where the sounds were heard in greatest intensity. The percussion sound on the left side was all but absolutely dull, except at and immediately under the clavicle. On the right side the percussion sound was resonant, except immediately under the clavicle, where it was very dull and of very short duration.

The respiration sounds on the left were throughout extremely deficient, and not all vesicular. A few rather moist crackles accompanied the respiration sounds under the clavicle and also posteriorly at the very base. Whispering pectoriloquy was heard at the left scapular region. On the right side the sounds were cavernous-like, but they were fuller and more prolonged than on the left.

24th.—The signs are the same.

31st.—Distinct cavernous pectoriloquy on the right; the other signs remain the same.

February 16.—Distinct cavernous pectoriloquy and humid crepitation on the right side. Other signs as before.

On March 14 scarcely any respiration sounds were heard on the left side; a little fine crepitation in the left mammary region, and metallic tinkling of a very distinct character were heard immediately below the angle of the left scapula, and some distance above and below. Three, and sometimes four, tinkles accompanied each inspiration; the note was metallic, prolonged, and seemingly diffused over a large area internally. The percussion note at the scapula and below clavicle was somewhat resonant. I now concluded that perforation was probably present. No material change had taken place in the general health of the patient. He had rather improved; but, not becoming much better, he was somewhat low in spirits, and seemed desirous of going home to Liverpool.

At my first examination I concluded that the primary disease had been pulmonary consumption, that intercurrent pleurisy had occurred on the left side, and that effusion to a large extent had taken place. This, too, corresponded with the opinion of the Medical gentlemen who had previously seen the patient, as reported by himself. There were obviously excavations on both sides; the cavity on the left side permitted less air movement than the right one. The heart had been displaced by two causes, viz., the effusion on the left and the traction on the right side.

But besides arriving at these conclusions and duly recording them, it occurred to me that possibly perforation on the left had taken place, and had given rise to the pleurisy and the effusion. This, of course, was only a conjecture, and merely served to make me diligent in seeking for perforation sounds. The dulness on percussion did not seem to me to justify the rejection of this idea, for great effusion might cause the displacement of air, *i.e.*, its return back through the lung, and this would produce dulness as well as the extinction of tinkling and amphoric sounds if they had ever been present.

17th.—Learning that the boy was to leave the Hospital this day, I went down again yesterday to examine him, and to request Mr. Edwards, the experienced Resident Medical Officer, to listen for the sounds. The percussion sound on the left was now resonant all above the level of the angle of the scapula. Distinct metallic tinkling with diffused porcelain bowl-like ringing was heard, three and four tinkles to each inspiration. This was heard in front near the nipple, but most markedly immediately below the inferior angle of the left scapula. The voice and the cough were distinctly and remarkably amphoric. The respiratory sounds in front under the nipple were *nil*, the same in the lateral regions; but at the inferior dorsal region, close to the spine, some very vague and very obscure respiration could be heard, possibly derived from the opposite side of the chest or from a portion of lung bound down by abnormal adhesions, and with yet partially pervious air tubes. The dimensions of the chest on this, as upon other occasions, were these,—14½ on the right and 14 on the left. The decubitus was all along upon the left side.

Mr. Edwards expressed himself satisfied of the very metallic-like tinkling and of the amphoric character of the respiration cough and voice sounds, as well as of the tympanitic-like character of the percussion note above the angle of the scapula. The percussion note below this remained absolutely dull.

There can be little or no doubt that in this case perforation exists at this moment. What other condition could give rise to the replacement of the dull percussion by the tympanitic sound above? What else but the pleural cavity occupied by air could give rise to the continuous metallic tinkling, highly amphoric, highly diffused, and highly prolonged? The same may be asked of the prolonged amphoric voice and cough heard well to the base. The dull percussion below, of course, is due to the presence of the liquid which, instead of surrounding the lung from its upper regions, now occupies the lower parts of the pleural cavity only.

It is another question how far my conjecture of early perforation being the cause of the effusion is well founded. To admit this as the cause of the effusion is scarcely admissible by current and admitted Medical science; yet the chief obstacle to this admission—viz., the absence of the accepted signs of perforation until very lately—is much weakened when we remember the fact that these signs—viz., tinkling and amphoric bruits—may disappear for a time, and that perforation may be present, as in the case of W. L., with only one auscultatory sign, and that one, I believe, not described before as suggestive of perforation, and with not a single one of the signs usually recognised as necessary evidence of this condition. Air in the cavity may have been got rid of by increasing effusion, and again more air may have been admitted by decreasing effusion; and it is worthy of note that latterly the patient was under the influence of iodide of iron and blisters.

But, let perforation in this case at an early period be denied or admitted, there appears nothing to negative its existence at the present moment. Of course, the future history of the case will supply valuable evidence.

These three cases of pulmonary consumption appear to me well deserving of the attention of the Profession. In the first two, post-mortem examinations absolutely proved the existence of pneumothorax. In the third, the signs are so fully developed as to leave little to desire in the way of testimony. Revelations may be made after death, it is true; but it is to be trusted these will be long delayed.

If we bear in mind that these three patients are part of some fifty who have come under my care in the Hospital during the last three months,—if, further, the fact be allowed due weight that not a few patients come into the charity labouring less under pulmonary consumption than under other diseases of the chest, and some with just a suspicion of disease in that region,—it will be admitted by the unprejudiced that it is not improbable perforation of the pleura is not an uncommon event in the course of this disease, and that there is a good show of reason for the arrangement I have adopted in my recent publication of making this condition a separate, a fourth, and a terminating, though not necessarily a rapidly-terminating, stage o this distressing malady.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

CASES OF INTRAOCULAR HÆMORRHAGE.

(Under the care of Mr. HULKE.)

Mr. Hulke remarks that hæmorrhage, within the eyeball, is of much more frequent occurrence than was formerly supposed. The extravasated blood is visible to the unaided observer only when it is in large quantity, and not very distant from the back of the lens,—conditions which not rarely obtain when the extravasation is produced by a blow on the eye; whilst smaller hæmorrhages in the retina and choroid escape detection in the living eye without the ophthalmoscope.

Case 1.—*Hæmorrhage from the Corpus Ciliare, caused by a Blow.*

A man, aged 30, was hit by a stone on the right eye, which immediately deprived him of the power of distinguishing objects; the retina, however, continued sensitive to light. For several days the eyeball was very red, and the lids were much swollen. A very strict antiphlogistic treatment was practised. Five weeks after the accident, when Mr. Hulke saw him, these external traces had disappeared. The pupil was motionless and widely dilated, and, in a favourable light, a slight reddish glimmer was perceptible through the lower part of the lens. The sight had much improved, so that No. 10 test-type was read slowly and with pains. By an examination with oblique illumination, and with the ophthalmoscope, a large blood-clot was recognised lying upon the most dependent part of the ciliary body; further back, towards the equator of the globe, opaque films were floating in the vitreous humour, which was everywhere slightly hazy. The optic nerve and retina presented no remarkable appearances. Mr. Hulke heard, subsequently, that considerable improvement of vision took place.

Case 2.—*Retinal Hæmorrhage from a Blow on the Eye.*

Elis. C., aged 30, was hit on the left eye with a potato. The blow stunned her, and she fell; on recovering her consciousness, she found she could no longer distinguish objects. When the ecchymosis and swelling of the lids had disappeared, with the exception of a dilated pupil, no trace of the injury was visible externally.

Ophthalmoscopic Signs.—A large patch of extravasated blood in the retina, at the inner side of the optic nerve-entrance; hyperæmia of the latter, and undue fulness of the retinal veins. The extravasated blood was absorbed, but no improvement of vision took place; there was only quantitative perception of light, limited to certain portions of the retina.

In the last case the loss of sight would formerly have been attributed to "concussion" of the retina; but Mr. Hulke has long observed that in cases of this kind structural lesions are generally demonstrable.

Of much more frequent occurrence than the traumatic, are—1, the hæmorrhages arising from a morbid weakness of the capillary vessels, such as that produced by fatty degeneration, and by laxity of texture; 2, those attending an inflammatory or mechanical stasis; and 3, those brought about by unhealthy states of the blood.

Case 3.—*Retinal Apoplexy, probably due to Fatty Changes in the Coats of the Vessels.*

Sarah B., aged 62, a thin, bronzed, old country-woman, found one morning on waking that she could not see anything with her left eye, the sight of which was not impaired when she went to bed. Five weeks after this she came to the Royal London Ophthalmic Hospital. The eye retained only a quantitative perception of light, and there was nothing visible externally to account for this loss of vision.

Ophthalmoscopic Signs.—An extensive extravasation of blood in the optic nerve-entrance and neighbouring retina, a few groups of striæ in the lower margin of the lens, and a very faint diffused haze of its nucleus. July 26.—Much of the extravasated blood is gone, and, notwithstanding the lenticular opacity is greater, she recognises the hands of the clock at nearly twenty-five yards' distance. In the following December a second extravasation took place, and vision was again reduced to a quantitative perception of light. Owing to increasing opacity of the lens, the further changes in the fundus could not be observed.

Case 4.—*Retinal Apoplexy, probably due to Fatty Changes in the Vessels.*

Caroline C., aged 47, a very stout cook, on waking in the morning found her right eye quite blind; the evening before there was nothing wrong with it. Three weeks after this she became an out-patient at the Royal London Ophthalmic Hospital. The pupil of this eye was dilated and motionless, except in concert with that of the other eye. The retina retained a sensitive perception of light.

Ophthalmoscopic Signs.—Three patches of blood extravasated in the retina, in the region of the "yellow spot," with slight blurring of the details of the optic nerve-entrance. Three months afterwards all trace of the blood was gone; the optic nerve entrance had a pearly whiteness; and vision was not restored. Sixteen months before the occurrence of the retinal apoplexy, this person had had a fit; she was unconscious nearly three hours, and hemiplegic.

Case 5.—*Retinal Apoplexy, probably due to Fatty Changes in the Coats of the Vessels.*

Thomas R., aged 57, applied at the Royal London Ophthalmic Hospital, September 6, 1860. The sight of his right eye had failed without pain, redness, or other external signs of mischief. He recognised large objects, as the fingers, at short distances, but fixed the object with an excentric part of the retina. He could not read the largest type.

Ophthalmoscopic Signs.—The optic nerve, with the surrounding retina, and the macula lutea, were closely dotted with capillary apoplexies of different ages.

Case 6.—*Retinal Apoplexy, probably due to Fatty Changes in the Coats of the Vessels.*

Amy G., aged 59, a widow, in very broken health, came to the Royal London Ophthalmic Hospital, October 25, 1859. With the left eye she could only distinguish differences of light and shade; the sight of the right eye was unaffected. She said: "A week ago, whilst stooping to clean a stove, all of a moment something waving came over my eye, and things looked dark."

Ophthalmoscopic Signs.— A large patch of extravasated blood encircling the upper and outer edge of the optic nerve-entrance, and a second smaller extravasation at a short distance upwards and outwards from the nerve.

Case 7.—*Retinal Apoplexy, probably due to Fatty Changes in the Vessels.*

Mary M., aged 58, very rheumatic, and broken in health, became an out-patient at the Royal London Ophthalmic Hospital on November 19, 1858. With her right eye she could distinguish fingers held at a few inches distance, but was quite unable to decipher the largest type.

Ophthalmoscopic Signs.—A patch of extravasated blood hiding the optic nerve-entrance, and several smaller extravasations nearer the equator of the eyeball.

Case 8.—*Extravasation of Blood into the Vitreous Humour.*

A. H., aged 21, whilst engaged at work, noticed a mistiness of his right eye, which increased in density till he could only distinguish light from dark. Six months after this he came under Mr. Hulke's care at the Royal London Ophthalmic Hospital. The pupil was sluggish; its full dilatation, with atropine, disclosed a bright object in the vitreous humour, at a short distance from the back of the lens.

Ophthalmoscopic Signs.—A diffuse haziness of the vitreous humour concealing the retina and choroid. A greyish wavy membrane in the upper part of the vitreous humour between the equator and the lens; below this, numerous brown floculi; and lower still, in the most dependent part of the fundus, a reddish mass, which, there could be no doubt, was an old blood-clot. The sensitiveness of the retina to light

that was everywhere present showed that the floating membrane was not a portion of the nervous coat upheaved by an effusion from the chorio-capillaris, and it was probably a web of fibrillated fibrine, or hyaloid membrane, torn by the escaping blood.

Case 9.—*Hæmorrhage in the Ciliary Region, probably from Textural Weakness of the Walls of the Vessels.*

Aaron M., aged 25, whilst digging potatoes, was startled by a dark cloud which seemed to come over his left eye from the right or inner side. Nearly three months afterwards he was admitted into the Royal London Ophthalmic Hospital. At this time the external appearance of the eye was healthy; the retina was everywhere sensitive to light, but objects lying in the left of the visual field were alone visible.

Ophthalmoscopic Signs —A general haze of the vitreous humour, with an old and partially-decolorised blood-clot lying at the lower and outer part, near the back of the lens.

Case 10.—*Retinal Hæmorrhage, probably from Textural Laxity of the Capillaries.*

A coachman, aged 23, whilst stooping, suddenly saw "a small black object, which in a moment acquired the size of a halfpenny, and then seemed to burst into a pillar of fire, giving off long red streaks." After two days these appearances were replaced by a dark band, which he described as about two inches long, by half an inch broad, and having a reddish tinge. A fortnight afterwards (June, 1856), when he was sent up from the country to the Royal London Ophthalmic Hospital, this band had disappeared; he could recognise large objects, but as if through a film, which he compared to a thin coat of oil floating on water.

Ophthalmoscopic Signs.—Several spots of capillary retinal apoplexy; those in the most dependent part, at the equator of the globe, are confluent.

All these patients wanted that freshness commonly seen in persons leading an out-door country life. Their work was not excessive, and they were well fed; but their complexions were pasty, and their muscles were soft. They were free from any evidence of visceral disease, but were subject to frequent epistaxis.

Case 11.—*Retinitis Simplex—Capillary Apoplexy.*

Charles G., aged 45, a free liver, was seized with violent pain darting from the occiput to the forehead, for which he was energetically treated by leeching and blistering. Three weeks after attack, his sight failing, he came to the Royal London Ophthalmic Hospital. With the right eye he could slowly spell No. 16, and with the left No. 19 test-type. The pupils were large and inactive.

Ophthalmoscopic Signs.—Capillary congestion and cloudiness of the optic nerve and adjacent retina. Capillary apoplexy, turgescence, and simulated interruption of the retinal veins, and apparent smallness and want of conspicuity of the arteries. Evidence of kidney disease and syphilis were absent.

Case 12.—*Per-acute Glaucoma; very numerous Capillary Apoplexies of the Retina.*

A coast-guardsman, aged 39, was suddenly seized with excruciating paroxysmal pain in the right eye, attended with great loss of sight. Six days after this attack, when he came to the Royal London Ophthalmic Hospital, there was great redness and œdema of the conjunctiva; excessive hardness of the globe, indicating a very high degree of intra-ocular pressure; a widely dilated pupil; and only quantitative perception of light.

Ophthalmoscopic Signs.—Slight haze of the ocular media; deep excavation of the optic nerve; turgescence of the retinal veins, which were bent abruptly at the edge of the foramen opticum; and capillary apoplexies so numerous that the retina was closely dotted over with them.

HOSPITAL FOR SICK CHILDREN.

CASES OF EXCISION OF THE OS CALCIS.

(Under the care of Mr. ATHOL JOHNSON and Mr. HOLMES.)

The remarks appended to these cases were delivered in a clinical lecture at the Hospital by Mr. Holmes.

The operation for the removal of the entire os calcis in the strumous affections of that bone, so common, especially in childhood, has not yet come into such general use and reputation as its success at this Hospital would seem to justify. It is an old observation that strumous disease in the tarsus very commonly commences in the joints between the calcaneum and astragalus; and it is by no means uncommon in such cases for the disease to extend at first only downwards, *i.e.*, into the os calcis,—the astragalus and all other bones of the foot being unaffected. If such cases are treated, as they very often are, on the expectant plan, the disease, after having probably destroyed the entire os calcis, will spread into the astragalus, and thence to the other bones of the tarsus or to the ankle, rendering the amputation of the foot ultimately inevitable. But if the disease be vigorously attacked at once, and the affected bone entirely removed, the child will, in all probability, recover with a member which after a year or two will present little appreciable difference, either in appearance or gait, from the opposite foot, and which for all practical purposes will be quite as useful; with which he can walk, run, and even, in very successful cases, dance and hop quite nimbly. Again, besides the cure of the local disease which it promises, the operation has a most beneficial influence on the child's general health, by removing a constant source of exhausting discharge. Hence, the Surgeons of the above Hospital have been always much in favour of the early and complete removal of diseased bone in the tarsus, and have been led to entertain more sanguine hopes of complete success when the disease is confined to the heel, than when confined to any other part of the foot. The following four cases are intended to illustrate this point. They are all of which the notes are preserved, though several other operations of the same kind have been practised at this Hospital, and, as far as the cases were kept under observation, appeared successful.

In two of the following cases opportunity was afforded for testing the ultimate result, viz., in the second and third, and the fourth is still under observation. The girl who was the subject of the second case used to attend at the Hospital for some years afterwards on account of other strumous symptoms; and, notwithstanding the continuance of the general strumous disease, the wound of the operation remained sound; the foot was perfectly useful: the patient, who was a lively, merry girl, could run, leap, and dance, and appeared to use one foot as freely as the other.

One question as to the method of operating may possess some interest at the present time, viz., whether the bone ought to be removed entire, together with the periosteum and surrounding soft parts, as of course is the case in an ordinary excision, such as Nos. 3 and 4; or whether the operation sometimes called "subperiosteal resection" should be preferred, in which the diseased bone is gouged or scraped away, and the periosteum is believed to be left behind. The operation No. 2 was performed in this manner. No special examination of the excised portions was made to ascertain whether the periosteum adhered to them or no, but the same remark would apply to most instances of subperiosteal resection; so that this operation may fairly be classed as subperiosteal. If so, no advantage appeared to have followed from the assumed sparing of the periosteum. The heel was not more full nor more solid, nor the foot more useful, in that case than in the next, where the periosteum was extirpated with the bone. If this is usually the case, it is certainly more desirable to perform that operation which affords most certainty of getting rid of the entire disease. Mr. Holmes observed that, having had frequent opportunities of examining the foot in the girl Elizabeth B., he did not think that there was any reproduction of the excised bone; at least, if there had been, it was so trifling that it produced no effect on the shape or usefulness of the foot. Hence he was led to prefer the complete and formal extirpation of the bone to its removal piecemeal, in any case of disease which was sufficiently extensive to warrant it. The method of operating by a horizontal incision on the outer side, joined by a vertical one, extending from the anterior part of the former to the lower edge of the grooved inner surface of the os calcis, is far preferable to the proceeding generally recommended, in which a flap is turned up from the heel, as in Syme's amputation, on account of the unnecessary damage inflicted on the vessels and nerves of the sole in the latter method; while in the former, with very little care, the posterior tibial vessels are avoided and very little blood need be lost. In case 3 it was noticed that no vessels required ligature; and in case 4 only one small artery was tied at the commencement of the operation, more for convenience than necessity. The dissection is not very laborious: in one case,

in which the time was noted, it occupied ten minutes. Of course, however, in the adult it would be more bloody and more tedious. If the disease in the bones extended further than was at first supposed, flaps could be easily shaped for amputation at the ankle joint by a proceeding somewhat similar to that recommended by Dr. Mackenzie.

Case 1.—*Disease of Nearly Two Years' Standing—Recovery from Operation—After-progress not known.*

Louis O., aged 4, admitted September 12, 1855, under the care of Mr. Athol Johnson. Was a healthy child till twenty-one months ago, when he fell off a high chair, spraining his left foot. This was followed by swelling, and six months afterwards an abscess burst on the inner side over the os calcis. He was taken to a Hospital, where an abscess was opened on the outer side; and then, according to the mother's account, amputation of the foot was proposed. The openings on the inner side healed up; but two openings remained on the outer side below the malleolus. There was occasional pain, and the limb was wasted from disease. The foot was somewhat distorted from his habit of walking on the toes; but the ankle joint moved freely and without pain.

On September 21 the external surface of the bone was freely exposed by incision, and found rough and denuded of periosteum to a great extent. The soft parts were very hard and thick. The whole bone was removed by the forceps, both the articulations being seen and found healthy. The opening was kept patulous for some time by means of lint introduced. When this was removed the matter began to present at the inside of the heel; but by again dilating the wound with lint this subsided. The wound continued to contract, and appeared almost well, when an abscess made its appearance near the tendo-Achillis, and burst. The part then improved again very much, and the original wound almost healed, when on pressure from below nearly a teaspoonful of pus was forced out, showing that the granulations had not yet quite filled up the large hollow left by removal of the bone. This filled up gradually, and he was discharged, December 24, almost well. The after-progress of the case is not known.

Case 2.—*Subperiosteal Resection—Permanent Recovery.*

Elizabeth B., aged 9, was admitted on June 11, 1856, under Mr. Athol Johnson's care. There were three or four ulcers about the left heel, which were said to have existed about half a-year, and to have been preceded by pain at the bottom of the heel, extending afterwards to the ankle. The sinuses were laid open; but this was followed by erysipelas, and by a large ulcer on either side of the heel, with sloughy surface.

On June 23 chloroform was administered, and incisions were made, exposing the outer surface of the os calcis, which was gritty and carious in its whole extent; the periosteum was thickened and separated from the bone. Portions of the bone were gouged away; but the whole mass seemed affected, and, finally, the entire os calcis was extracted piecemeal; the joints between it and the cuboid on the one hand, and the astragalus on the other, being found healthy, and those bones unaffected.

The operation was followed by considerable fever and a slight attack of erysipelas, and on July 4 the eruption of measles made its appearance. This disease ran a favourable course. On July 9 an abscess formed, and was opened on the inner side of the ankle. She experienced considerable relief from swinging the limb; but the wounds were not healed when she was discharged on September 15, nearly three months after the operation. The ultimate result of this case has been above alluded to.

Case 3.—*Exploratory Operation followed by Total Extirpation—Recovery with Useful Foot.*

David S., aged 4½, admitted October 25, 1861, under the care of Mr. Holmes, on account of disease of the right os calcis, which had existed about a year. There were two sinuses on the outer side of the foot,—one close to the heel, the other in front of and above this,—not far from the outer malleolus. From the former sinus the probe passed directly down to a large surface of exposed bone; the other sinus was almost closed. It seemed to lead towards the anterior part of the os calcis, but no bone could be felt in it. The child was put under the influence of chloroform, and the principal sinus was enlarged in such a manner that the wound would serve afterwards in the excision of the bone, if that measure should seem necessary. It was found that a portion of bone was loose in a cavity, and the opening of this cavity was enlarged with cutting pliers and a small trephine in order to remove it; but it was soon discovered that the necrosed portion was so extensive, and the walls of the cavity containing it so evidently diseased, that complete excision was decided on.

On November 2 the os calcis was dissected out. A horizontal incision was made on the level of the upper part of the bone, starting from the inner border of the tendo-Achillis, which was therefore divided and heard to snap in commencing the incision, and terminating at the situation of the cubo-calcanean joint, midway between the malleolus and the end of the fifth metatarsal bone. This was joined by a vertical incision across the sole of the foot, from near the anterior end of the former to the commencement (or lower border) of the large groove which is formed by the internal surface of the os calcis. Both incisions extended down to the bone in their whole course. The soft parts having been thrown back from the whole outer surface of the bone, and round the heel, the cubo-calcanean joint, which was healthy, was opened; the upper surface of the bone was then separated from the astragalus with great ease, as the joints were quite disintegrated, and then the inner surface was cleaned with some care, in order to avoid the posterior tibial artery. The lower surface of the astragalus was seen to be covered with a thick substance, like granulations; but no bone was exposed. The flaps were put lightly together with a few points of suture. No vessels required ligature, and the dissection was by no means laborious.

The bone was rotten throughout, and in the traction necessary to loosen it from its connexions, the upper wall was broken down, leaving a mere shell of softened bone, to which the periosteum was closely adherent.

Nothing occurred in this case calling for any further remark. The outer or horizontal part of the wound was kept freely open, rapid union being desired in the part extending into the sole. The cavity gradually filled up with considerable suppuration, and the boy was discharged, February 3, 1862, with the foot still on a splint, as a matter of precaution. At that time the wound had cicatrised, except a very small superficial portion.

He was last seen on September 20, 1862. The foot was then perfectly sound, and had been so for many months. The cicatrix in the sole was linear, and perfectly free from irritation. He wore a boot with a rather thicker heel on that side than the other, and his gait was so nearly natural that no peculiarity would be noticed without attentive observation. He could extend the foot by the action of the gastrocnemius quite easily, and the tendon could easily be felt working under the skin, having, no doubt, taken an attachment to the back of the astragalus. From his early age it was impossible to get him to make comparative trials with the two feet; but there seemed little difference in power between the gastrocnemii on the two sides. No bone could be felt in the situation of the excised calcaneum, and the heel was, of course, flat and raised.

Case 4.—*Disease of Two Years' Standing, affecting also the Astragalus slightly—Recovery from Operation—Case not yet complete.*

Alfred C., aged 5, admitted on July 4, 1862, under the care of Mr. Holmes, on account of disease of the os calcis, dating back for two years, and which had not been relieved by careful treatment during several months previous to his admission. The general health was good, but the foot perfectly useless. There was a sinus on the outer side of the heel, and a large part of the os calcis was felt exposed.

5th.—The same operation was performed as in the previous case, and the same state of parts was found; the calcaneum was reduced to a mere shell of softened and ulcerated bone, and its central part presented a large cavity, which had burst through the wall of the bone at the outside, corresponding to the sinus in the soft parts. The joints with the astragalus were quite destroyed, and the lower surface of this bone was superficially ulcerated. This was removed with the chisel till healthy and sound bone was reached. The foot was put in a splint. Irrigation was employed to the wound for the first twenty-four hours, and then, as there was a good deal of redness and swelling, ice, as recommended by Prof. Esmarch, was used, until the wound began to suppurate. The greater part of the incision across the sole of the foot, and a good deal of the horizontal incision, united by first intention: consequently there was not a very free outlet for the large amount

of matter which collected in the cavity; but the introduction of a drainage-tube remedied this inconvenience. The tube, however, was taken out a fortnight after its introduction, and this was followed by an immediate return of the swelling and redness from confined matter, rendering an incision necessary on the inner side of the heel. After this the wound closed rapidly, so that he left his bed on August 13, and he left the Hospital on September 7, with the foot in a gum and chalk bandage. Even at that early period he could walk a little without crutches. When last seen, however, about ten days after his discharge, a small portion of the cicatrix was again ulcerating, but this ulceration seemed merely superficial, and depended in all probability on some accidental cause.

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Medical Times and Gazette.

SATURDAY, OCTOBER 4.

THE TIME FOR APPRENTICESHIP.

"You cannot put more than a pint into a pint-pot." A very vulgar adage, truly; but one that defies contradiction! You may pour and pour for all time, but if you want your pot to hold more than its pint, you must increase its capacity.

The same thing holds true with regard to that earthen vessel—that tenement of clay, the receptacle and seat of the human intellect. You may pour in knowledge, and go on *ad infinitum*, but the whole result will depend, not upon what you pour in, but upon the *capacity* of the recipient.

So far as the first practical handicraft of Medicine, or of any other calling, is concerned, most persons can get on equally well up to a certain point. Any neat-handed woman can be taught to decipher the hieroglyphics of a common prescription, and to dispense common medicines accurately. The dispensers in most Hospitals and Dispensaries are persons of anything but scientific acquirements, and learn their business in a very short time. Pupils and nurses, and any persons of common sense, soon learn to distinguish common maladies and to treat them. There is many a stomach-ache and bad cold which Mrs. Gamp could treat as well as the most learned Physician. But the acquisition of this kind of knowledge soon comes to a dead pause. The untrained Practitioner is no better after ten years than at the end of one. When diseases, which are alike, have to be distinguished from each other, or obscure symptoms have to be hunted out and unravelled, our untrained Practitioner finds that this is a work for which he has no taste and no capacity. The measure of his usefulness and favour is soon reached. He cannot see the use of making minute distinctions. He cannot take the pains to make them; and he does not know in what possible respect one case may differ from another, which has symptoms like it. All stomach-aches are alike in his eyes; he knows that castor oil and laudanum are a good dose; and if the case is the right one the patient soon gets well, and is highly satisfied with the practical good sense of the prescriber. But suppose the nostrum fail! Suppose there be doubts, whether there be ileus or invagination, or lead colic, or concealed hernia, our practical friend is at sea without chart or compass. He does not know even by name the possible conditions of the case he is treating, and if he did he could not distinguish them. His pint-pot will just hold the fact that castor oil and laudanum are good for a stomach-ache; but he has no capacity for anything more. He might see a hundred cases of obstruction or a thousand, but no increase of experience would add to the knowledge of a man who knows neither the anatomy and structure of the bowels, nor the morbid changes they are liable to.

Now, this *capacity*,—this power of detecting differences in things which look alike, is to be got by training; and especially by a systematic training in that use of the eyes, ears, and fingers which we have urged upon Medical students. But whereas empirical knowledge can be picked up at any time, training cannot. Systematic habits of study must not be interrupted. A youth who, on leaving school, passes two years in enlarging his capacity,—in sharpening, as it were, his instruments, will soon seize, hold, and digest all the rough empirical facts of rudimentary practice. On the other hand, the youth who, at the same age, has been turned into a "surgery" to dispense medicines whose names he knows not, to make chemical compounds of which he has never learned the qualities, and to see and treat diseases by rote, or possibly to read the books on his master's shelves, and vainly endeavours to learn by reading what he ought only to learn by seeing,—this youth *cannot* take up again any studies which imply rigorous mental training. He has got a good deal of useful knowledge, certainly—knowledge which every man must get who hopes even to make a livelihood by his Profession; but it is a knowledge of the lowest order, such as he can pick up at any time; and in order to gain the knowledge of a nurse, he damages for ever his position as a gentleman and a philosopher.

A "gentleman and a philosopher." We repeat the words emphatically; and let us see what they mean.

We need not be at the trouble of proving that large numbers of our Professional brethren have not the social *status*—the place on the roll of English gentlemen, which they deserve. Our editorial letter-bag is full of dismal complaints. "It is deeply to be regretted that Medicine is placed far below the Church and the Bar in the scale of society." This is the stock complaint that proceeds from a thousand pens. But why? Is it because we are poorer? No! for the parsons are poor enough. But it is because of the want of higher education. Educated men know each other, as if by instinct. Not a word need be said in Greek, or Latin, or French, nor one word about mathematics; yet a man who has been trained in these studies has a certain flavour—a stamp about him, which passes current without question.

Need we again be at the pains to say how greatly we all need more of the habits of the philosopher?—accurate observation, cautious weighing, honest scepticism, and sober inference?

Then, in the name of common sense, let us educate our successors in a way to make them better than ourselves. Let us, with wise liberality, give them enlarged capacity before we proceed to fill them.

On leaving school, let them go on with French, German, Drawing, Mathematics, and Natural Philosophy, as parts of general training; and begin Practical Anatomy and Practical Chemistry (not Book Anatomy nor Book Chemistry) as the very elements of professional study.

If, together with these studies, they can attend in the wards of an Hospital, or in the out-patient room, or private surgery, so much the better. But if our successors are to keep up with the times, with the wants of the public, and with the advance of Medical science, they must begin with a solid foundation. No heap of stuff "picked up," and thrown

together, but good, solid, jointed, well-laid masonry is needed as foundation for the edifice that is to be raised.

This subject is so important, and the whole question of *curricula* demands such ventilation, that we shall return to it in an early number.

GUY'S HOSPITAL AND ITS SCHOOL.

(*From a Correspondent.*)

In placing before our readers some account of the Medical schools of the metropolis we have endeavoured to discover what are their distinguishing features, for in outward aspect they so much resemble one another, that a mere publication of their prospectuses affords little that is characteristic, and yet we believe that there is a characteristic sentiment pervading every school.

In commencing with Guy's and its School we have endeavoured to gather from those interested in the Institution what they consider to be its most striking peculiarities, what is its guiding spirit, and what has been the aim of its teachers, in order to make it an efficient seat of learning for the Medical student.

Guy's Hospital has ever had a world-wide fame, owing to the munificence of its founder, it being probably an unprecedented fact at the time of its erection for any individual to have expended his fortune during his lifetime for a simple benevolent object, Guy's charity forming one of the few antecedents with which Mr. Peabody's can vie. That such an Institution united with St. Thomas's should form the foundation for a great Medical school is not to be wondered at, seeing that when the Borough schools flourished there were but two or three other similar places of learning in London, and none in the Provinces; but why, when five-and-thirty years ago the dismemberment took place between these two Hospitals, Guy's should have been more highly favoured than the sister Institution, is more difficult of explanation. At the time of the union, the lectures were given conjointly at both Institutions, the Surgical for the most part at St. Thomas's, and the Medical at Guy's, and this may account for the fact of Guy's having been ever since a great *Medical* school, using this term in contradistinction to *Surgical*. We do not deny its high Surgical fame, especially under the auspices of Sir A. Cooper, and since his reign under Aston Key and his successors, but great Surgical names have appeared at St. Bartholomew's, St. George's, the London, and elsewhere; but what we mean is that, whilst at these Institutions the splendour of the Surgeon's name outshone all others, at Guy's the Physicians were seeking to ensure an equal reputation, and thus, at the time of its separate existence as a School, Bright, Addison, and Babington were striving their utmost not to be eclipsed by their more brilliant colleagues. We have thus always heard Guy's spoken of by London University examiners and others as a great *Medical* school, where the Physician has clearly seen that the future career of the student has depended as much upon *him* and *his* teaching as upon the more brilliant and attractive practice of the Surgeon. To accomplish this end, however, has been no inconsiderable task; for the practice of Surgery, with its operations, is so much more striking to the eye and attractive to the young, that no small effort is necessary to make the Medical teaching keep pace with the pupil's Surgical career.

The great object has been at Guy's to afford the student a sound Medical and Surgical education; or in saying that the object has been a practical one, we think we shall be expressing the sentiment of every one connected with the institution, and herein lies an explanation of the whole system adopted at Guy's: an illustration of which was exhibited a few years ago, when the names of the lecturers were omitted in their annual advertisements, the feeling being that every Professor was equally important in his own vocation as his colleagues, and that the attractions offered by any one individual of a little more brilliant name than his fellows was conducive of no good result to the student. For the same reason the prizes were for many years discontinued, the feeling being that pupils should have a higher aim than the mere pursuit of trifles. For a like reason Clinical Lectures were given in the Hospital at the commencement of the present century; and thirty years ago, soon after the opening of the school, the *Clinical Society* was founded with the object of uniting the students together for the purpose of recording cases in the wards. At the present time the Examining Boards require only that students shall have attended Hospital Practice, or, in other words, walked the Hospital, the mode of testing the fact not being suggested. At Guy's now, for some years, all students have been required to be reporters or clinical clerks (of an inferior degree) to the Physician and Surgeon, and this is the test of attendance on Hospital Practice: the cases being written out in books provided for the purpose in the clinical rooms.

The aim of the authorities of the Hospital has been not so much to seek for a brilliant lecturer as to make the institution an efficient school for the student. Thus, besides the general wards containing about 500 beds, there are two of 50 beds appropriated to syphilitic cases; an eye infirmary, in connection with which is a room where, under the superintendence of the Surgeon, the students have an opportunity of learning the use of the ophthalmoscope. The Physician-Accoucheurs have also two wards set apart for uterine diseases, and here the clerk has a special opportunity for assisting in operations which may be useful to him in after-life. The Lying-in Charity is one of the most extensive in the Kingdom. The students attend the poor women at their own homes, and are superintended by the senior pupils, who give their assistance in difficult cases. The latter are appointed from the most meritorious students, live with the dressers, and thus have an opportunity of acquiring a knowledge of the usual midwifery operations. The children are afterwards brought to the Hospital, when the students have an opportunity of practising vaccination under the superintendence of the Assistant-Physician Accoucheur. The ward set apart for thirty cases of children's diseases is now closed, the cribs being scattered through the different Medical and Surgical wards.

The attempt at a more practical education was made at Guy's School at its first foundation, by the setting apart of two wards for the special object of clinical teaching—a practice which has prevailed to the present time; a separate building, however, now taking the place of the selected wards. Of this the Physicians take charge in turn, and give weekly lectures on the cases therein; the Assistant-Physicians taking their turn in the summer months. On the Surgical side of the house, owing to the difficulty of associating together in one ward a variety of cases, the clinical lectures are founded on selected instances, scattered through the Hospital.

Associated with the Clinical teaching, there has always been a daily demonstration of Morbid Anatomy or Pathology. Ever since Guy's has boasted a School, this has been regarded as a most essential department of education, even though not recognised by the Examining Boards. Not only are cases of interest inspected after death, but at a fixed hour of the day any dead body which may be in the house is opened for purposes of demonstration; and as the object is to teach students *every* part of their profession, a clerk is appointed every month to undertake the necessary manipulations in the examination. This has afforded means of collecting most valuable specimens for the Museum; and thus it can be said, without any vain boast, that the pathological collection at Guy's is not surpassed by any in Europe.

The mention of the Museum reminds us of the famous collection of wax models of cutaneous diseases therein contained, as especially designed by Addison with the same object as before mentioned, to perfect the student in every

branch of his art,—the knowledge of skin diseases being considered by Addison to be too much overlooked. This Physician and his successors have therefore made a demonstration of skin diseases a special course. We might mention also that there is a separate Course of Lectures on the Eye, on the Teeth, as well as on Comparative Anatomy and Natural Philosophy.

As teaching could not be conducted without a Museum, and artists to illustrate disease, the expenses connected with a Medical School must be necessarily great; and we are informed that at Guy's at least £1500 is annually expended in maintaining the efficiency of the School; the belief being that the necessaries for teaching require a large outlay of capital, and therefore that a considerable number of pupils is required to afford a remunerative return: a small school on this supposition would be impossible. The Medical staff feel much aggrieved to hear that their School is enriched by the Hospital, for they, on the other hand, consider that the Hospital is greatly benefited by the existence of the School. It may be mentioned also that it is considered a duty to publish an annual volume of "Reports," although this is always accomplished at some cost to the School fund.

The above account is sufficient to show the prevailing idea which animates the School at Guy's—the endeavour to afford, at a necessarily great cost, a thorough education for the Medical student, and where he may obtain a practical acquaintance with his Profession; for it only requires a short visit to the Borough to ascertain that *practical* is the word the Professors most indulge in, and that they hail with more delight the tidings of one of their pupils filling a public post with efficiency than if he were covered with College medals.

Although each Professor may, no doubt, feel vain of his own powers, yet there is an honest endeavour to sink any individual fame in the general good, and thus, placing all departments on an equal footing, they strive only for the welfare of the student. At Guy's they consider this combining together, or *esprit de corps*, of the utmost value, and they attribute its existence to the fact of most of the Professors having been educated at their own Institution. It appears that the Governors have not been deaf to the argument which has been used elsewhere in favour of the election of the best men which the country can produce for Hospital appointments, since they have twice acted upon it; but they have at the same time seen that it is an argument of not much practical value, since the difficulty of finding skilled men always ready to fill an important post is greater than may be supposed, and nowhere is this known better than in those Institutions where the principle of election is held, and where, it must be confessed, it has failed. In the older Institutions, as at Guy's, they consider that they must educate the man for the office, and that in a large School there can never be any lack of promising pupils. The age of nepotism is past, and thus all the appointments of late years have been conferred on merit alone. The Guy's men, justly or unjustly, generally consider that their staff, springing from their own *alma mater*, is one great cause of the prosperity of their School, and that this also is the reason why they have succeeded better than their neighbour, at whose Institution, during the last thirty years, there has scarcely been any man of eminence in London who has not been a lecturer; but with his lectures all his interest in the School has ceased. There is only one feature in Guy's in which any of its teachers will allow that it is behind its neighbours, and that is the collegiate system; but it appears that this has been a subject of deliberation for many years, and very near accomplishment at the time of the death of the late treasurer, Mr. Harrison. Opinions, however, are most diversified with respect to its utility. The superintendence of the young men's education and morals is declared to be more apparent than real; and on an appeal to the students themselves it is said that the most intelligent and hardworking men would prefer their liberty in their own private lodgings. The collegiate system does not appear to be in much favour in the Borough.

We have thus endeavoured, in this sketch of Guy's, to have avoided tiring the reader with mere details, which can be gained by a perusal of the prospectus, but rather to discover the spirit or the inward soul of the institution, and finding what its actuating principle is, and what the fruit of its operations. By attempting the same in similar institutions, comparing them together or taking stock (as it were), we shall discover the good results of an honourable rivalry, and make more manifest the progress of our Profession.

(To be continued.)

THE WEEK.

THE CASE OF CATHERINE WILSON.

The question of what amount of evidence is to be held sufficient to warrant conviction in a case of alleged poisoning is one of the gravest import. The *Times* has pointedly called the attention of the Medical and legal professions to a statement made by Dr. Taylor, the principal scientific witness in the case of Catherine Wilson, "that numerous cases of death, attributed to cholera, are in fact occasioned by poison," and that eight such instances have occurred within his experience. We would not for one instant throw a shade of doubt on any statement made by the Professor of Chemistry in Guy's Hospital, but as the representatives of a profession whom such a statement tends to damage, we should be glad to learn the exact particulars of the eight cases, and the proof of poisoning, chemical and pathological, in each. We hold that no Medical man is warranted in alarming the public by such an assertion, unless the evidence he can adduce in its support be of the most irrefragable description; not a mere tissue of surmise and suspicion, but true scientific evidence furnished by the laboratory and dead-house. A revolution in opinion with regard to the powers of modern science to detect the arts of the poisoner seems to be taking place. A few years ago it was the boast of the toxicologist that his science had arrived at a point which, at least in most, if not in all cases, was sufficient to protect the public against the machinations of crime. But recent cases have shown toxicology in a new light. Instead of being an exact science, founded on the indisputable facts of the test tube, the balance the scalpel, and the microscope, it is becoming, like some other branches of Medicine, a conjectural art, and now demands as much from imagination and faith as from the faculties of perception and observation. In every case it is felt necessary to invent a theory. A Medical witness should never allow himself to be at a loss. If his analysis prove negative, or his post-mortem examination inconclusive, there are a variety of poisons to select from. Chloroform answers in one case, colchicum in another. Anything is better than to lose a verdict or to acknowledge yourself baffled.

Let us not be misunderstood. No one who has read the evidence in the former trial of Catherine Wilson, the evidence in the trial which has just taken place, and the facts detailed by the judge in passing sentence, can entertain any real doubt as to her being one of the most atrocious criminals that have disgraced modern society. She will ever rank with a Palmer or a Borgia. The weight of moral evidence which her history furnishes, amounts as nearly to certainty as the nature of such a sequence of facts admits. Yet we are bound to express an opinion that, regarding solely the case for which she is to suffer, the circumstantial evidence was not conclusive, and the scientific evidence was nugatory. The truth is, that both judge and jury were acquainted with the prisoner's antecedents, which, for weeks past, have been before the public in the police reports. Although the judge in summing up begged the jury to dismiss from their minds the idle rumours which might have reached them out-of-doors, there can be

no doubt that they had as vividly before them the history of the woman against whom they returned a verdict of "Guilty," as the judge had when he summed up in a charge which might have been the address of the prosecuting barrister. We fully acknowledge the moral justice of the verdict, although we cannot but assert that legally it furnishes a most dangerous precedent.

The following are the facts of the case:—The deceased, Maria Soames, was a widow living at 27, Alfred-street, Bedford-square. She died on the 18th October, 1856. The prisoner lodged in her house, and was on terms of intimacy with her. On the 15th of October, three days before her death, the deceased visited her brother, and obtained from him a loan of £9. Deceased was a healthy woman, although occasionally subject to bilious attacks. On the afternoon of the 15th, deceased returned from her brother's apparently in good health. On that night she was taken ill with purging and vomiting, violent pain in the chest and bowels, and great thirst. This continued the following day, during which time the prisoner and deceased's two daughters nursed her, the former administering to her brandy and egg. On Friday morning, the 17th, the patient was still very ill, and continued to complain of sickness and pain in the chest; she vomited every ten minutes or quarter of an hour, and appeared to be getting weaker. A Medical man, Dr. G. Whidborne, was called in, who prescribed a chalk mixture with opium; he saw her several times, and increased—but to what extent we are not told—the strength of the opiate. The symptoms continued unabated during the Friday night. About four o'clock on the Saturday morning, deceased said she felt better; the prisoner then gave her another dose of medicine. Deceased was very ill and in great pain immediately, and said she would not take any more of the medicine. The prisoner said she must, and that it would do her good. One of the daughters then went to fetch the Doctor. When she returned she found her mother much worse and in violent agony, and she died about half an hour after. After deceased's death, at the instance of her brother and Dr. Whidborne, an inquest was held, and a post-mortem examination made. Dr. Whidborne conducted the post-mortem examination, but it is clear that his recollection of the appearances he found is not vivid. At the trial he said that, to the best of his recollection, the mucous membrane of the stomach and bowels was found inflamed, and he attributed death to that inflammation. On a previous occasion, when examined before the magistrate, he said that, as far as he remembered, death was due to inflammation of the peritoneum and small intestines, and that there was no particular appearance found in the stomach. He now withdrew that evidence and replaced it by the former. After the lapse of six years we can quite understand that Dr. Whidborne's memory might fail him; we only advert to the fact to show that the account of the post-mortem appearances is, as evidence, entirely worthless. It now appears that the contents of the stomach were analysed at University College, but we do not know by whom. Nothing, however, was found. The Coroner's jury returned a verdict of "Death from Natural Causes," and no more at the time was thought of the matter.

The circumstances which especially tell against the prisoner are the following: she had herself prepared the brandy and egg which she gave deceased on the Thursday; she brought it ready mixed into the deceased's room, and administered it herself. She kept the medicine supplied by Dr. Whidborne in her own room, under lock and key, and also gave every dose herself. After the death she informed several persons that deceased had committed suicide by poison, and, it would appear, forged a letter to the deceased, which she wished to be believed came from a man who, she said, had been paying his addresses to the deceased. Both the prisoner and her victim were in want of money at the time of the death of the latter. The £9 received by the deceased was not found after her death, and was never accounted for. These things certainly warranted the gravest suspicion, but, in the absence of scientific proof, would never have led to conviction. We turn, therefore, again to the evidence of Dr. Whidborne and to that of Dr. Taylor. Dr. Whidborne's evidence was to the effect that he found the deceased suffering from symptoms of English cholera, which she attributed to eating pork-pie. "The symptoms were the ordinary ones of choleraic diarrhœa." He had never known of a case where persons, attacked with choleraic diarrhœa or English cholera, have died within forty-eight or fifty hours. He was surprised at the sudden death. "It had been buzzed abroad that the deceased had either taken poison herself, or that the man who had been referred to had given it to her, and from the suddenness of the death my suspicions were a little aroused. If it had not been for these rumours I should never have suspected that poison had been administered to the deceased." "It is possible, when I was examined before the Coroner, that I said I was of opinion that the deceased was suffering from distress of mind, and also that I did not find anything the matter with the mucous membrane of the stomach. I cannot remember whether I stated at the time that my opinion was that the death arose from inflammation of the peritoneum and bowels. Upon consideration, I altered my opinion that the death was the result of inflammation of the peritoneum and bowels, and came to the conclusion that inflammation of the bowels was the only cause." Dr. Whidborne also detailed a conversation he had had with the prisoner in a previous case, in which she acknowledged to him that she knew colchicum was a dangerous medicine, and should only be administered under the direction of a Medical man.

We reprint Dr. Taylor's evidence entire:—

"Dr. Alfred Swayne Taylor, the eminent Professor of Medical Jurisprudence at Guy's Hospital, was then examined. He said,—I have for a great many years paid much attention to the subject of poisons, and I am of opinion that after a body had been buried five years it would be impossible to find any trace of vegetable poison. I also believe that if such a poison were administered in a fluid state it would not be discoverable five days after death. Vomiting and purging are symptoms of English cholera. I never heard or read of death occurring from English cholera in forty-eight or fifty hours. In the case of eating improper food it would lead to gastritis in a few days, which might end fatally, or the noxious matter would be thrown off by purging or vomiting, and the patient would recover. Violent pain on the chest is not a symptom of English cholera. The effect of the medicine administered by Dr. Whidborne, if it had been a natural disease, would have been to allay the symptoms and to relieve the patient, and it could not have caused an increase in the violence of those symptoms. From the evidence in this case I cannot attribute the death of the deceased to natural causes. I never knew of a death from natural disease taking place that was accompanied by such circumstances as have been deposed to in this case. Colchicum, if given either in repeated doses or in one large dose, would produce a burning sensation in the throat, severe griping pain in the stomach, nausea, with violent retching and vomiting, thirst, and purging. In most cases of irritant poison great anxiety is expressed on the countenance. Nothing would relieve the symptoms I have mentioned, but they would progress until death occurred. The only effectual relief would be to eliminate the poison from the stomach, but after the poison was once absorbed into the system it would be very difficult, if not impossible, to remove it. In the case of a natural disease of this character I should certainly not expect the symptoms to progress, but there would be a tendency to recovery when proper remedies were administered. I think it is possible that colchicum might be administered in brandy and egg, or an aromatic confection such as has been spoken of in this case, without being tasted by the person to whom it was given. Distortion of the features and clenching of the hands are not usual symptoms after death in cases of English cholera.

"Cross-examined: I made a post-mortem examination of the remains of the deceased after they were exhumed in July last. I found no trace of any poison whatever. The choleraic disease of 1854-5 was a peculiar malady, and combined the symptoms of Asiatic and English cholera, but the latter disease was certainly rendered much more malignant. No Medical man, however, would have any difficulty in distinguishing between the two. Vomiting, purging, retching, and pain in the bowels, are all symptoms accompanying English cholera. In my experience I have frequently discovered that cases of death which have been registered as having been occasioned by cholera, were in reality deaths from poison. I have known this to be so in eight cases where the bodies have been exhumed. In a case where a vegetable irritant poison has been administered, the pain generally continues until the last moment, and when once the poison is absorbed by the blood it is impossible to expel it. Some vegetable poisons would, after this, leave a trace in the blood, but that is not so with colchicum, which never has been discovered after a certain period has elapsed. I have been called upon to attend patients who have taken almost every description of poison, but I have never been concerned in any case where colchicum has been taken. Bad or unwholesome food would produce nearly the same symptoms in the patient as an irritant paison. The effect of the administration of colchicum might make its appearance in a very few minutes, or not longer than an hour, after the patient had taken it. From the facts I have heard in this case as to the violent retching, and vomiting, and purging, I do not believe that it would have been possible to discover any colchicum even if the body had been examined immediately after the death happened.

"Re-examined: If the death had arisen from eating diseased food, I should have expected to find some of that food in the stomach, and also symptoms of severe gastritis.

"By the Jury: The poison would act more speedily if administered in fluid food."

Now, if we analyse these depositions, and divest them of all theory and surmise, it is clear that they prove nothing. No poison was found in the possession of the prisoner, and none in the body of the deceased. The deceased, after eating a kind of food which is commonly productive of choleraic diarrhœa, was seized with what appeared to be that complaint. It ran on for between two and three days, and she then died. In opposition to the statements of Drs. Taylor and Whidborne we may safely affirm that cases of sporadic cholera do occur, which prove fatal in as short a time. From the details of the post-mortem it is impossible to say whether the body showed signs of peritonitis, enteritis, or gastritis—all or one. The theory of colchicum poisoning, or of any vegetable poisoning, is entirely gratuitous, there being not a shadow of direct evidence to point to it. We may leave the assertion, that a patient suffering from English cholera, after eating pork-pie, never has pain in the chest, to be tested by the experience of our readers. It is but right that the public should be made aware how thoroughly inconclusive to scientific men such evidence is. We entirely concur in the justice of the punishment which awaits Catherine Wilson, but we do not concur in the right of scientific witnesses to advance hypotheses as facts, even though it be to secure the conviction of the worst criminal.

INFANTICIDE.

Two cases, one of concealment of birth, the other of infanticide, have been tried within the last few days. The former was the case of an actress, whose infant was found in a water-closet in such a state of decomposition that it was impossible to express an opinion as to live birth. She had consulted Dr. Bainbridge during the period of her pregnancy, and as he was not called as a witness by the prosecution it was concluded that the prisoner had informed him of her condition. The charge therefore fell to the ground, and the jury returned a verdict of acquittal. The other case was that of the servant of Madame Otto Goldschmidt, and furnishes a telling illustration of the repugnance evinced by juries to convict of the major crime. The evidence of Dr. Willis, of Barnes, was, we think, entirely conclusive, not merely as to the fact of the child having breathed, but of its having been born alive in the legal sense of the term. The body was that of a fine, full-grown, male child. Dr. Willis said—

"He made an examination of the body of the child, and found a bloody serum under the scalp and clots of blood on both the parietal bones. The substance of the brain was healthy and uninjured. On examining the child he found the lungs of a pale rosy colour, fully expanded, and overlapping the pericardium on both sides, and from the examination his judgment was that the child had been born alive, and had breathed freely. On making an incision from the chest up to the throat he found an internal severance where there ought to be none, and this induced him to examine the mouth of the child, and on looking into the back of the mouth he found that the soft arches of the palate were torn, and that the mucous membrane was detached from its connection with the right jaw. He then laid the mouth open, and found all the parts, including the trachea, the jugular vein, the carotid artery, and all the muscles of the neck, bisected. All these were not in a natural, but in an abnormal state. The appearances he discovered could only be produced by thrusting something, such as a jagged stick, down the throat with great violence. In his judgment the cause of death was the injury done to the throat. The body was that of a very healthy child. In his cross-examination by Mr. Sleigh, the witness admitted that it was a common occurrence for a child to breathe during the process of parturition, and before it came into the world and was detached from the body of the mother. He had known instances of a child to cry out during the process of birth. On re-examination by Mr. Lilley the witness repeated that from the rosy appearance of the lungs the child had breathed freely, and had been born alive, but had died from the injuries to the throat."

Notwithstanding this evidence, the jury acquitted the prisoner of murder, and found her guilty of concealing the birth. She was sentenced to fifteen months' imprisonment with hard labour.

REVIEWS.

On Some of the More Important Diseases of the Army, with Contributions to Pathology. By John Davy, M.D., F.R.S., London and Edinburgh, Inspector-General of Army Hospitals, H.P. Williams and Norgate. 1862.

We have now for many years been familiar with Dr. John Davy's writings upon anatomical and physiological subjects; his "Researches" in those branches of knowledge being a book constantly referred to in our own, and even more constantly in foreign manuals. His work, however, upon the "Diseases of the Army," which has appeared within the last few weeks, is the first publication bearing directly upon Clinical Medicine which we have had from his pen. From this work it may be gathered that the brother of Sir Humphry Davy had left the studies for which he may be supposed to have a special call,—and with which, indeed, his own name, as well as his brother's, is connected,—for Clinical and Pathological investigations in Ceylon, so long ago as 1817. Though this is so, it was nevertheless as a Physiologist and Anatomist, by such papers as those in the *Philosophical Transactions* for 1850, "On the Temperature of Man within the Tropics," or those on the Blood in his "Anatomical and Physiological Researches," that the name of one, who must now be a septuagenarian, was known to the world. A paper, indeed, published so recently as 1859, in the *Transactions* of the Royal Society of Edinburgh, vol. xxii. part 1, "On the Coagulation of the Blood," which has not, we are sorry to say, obtained either the attention which it deserves, or that which the hypothesis it must be held to have overthrown, has excited, might have seemed to show that experimentation was, still and now, our author's employment, as it was half a century ago in the laboratory of the Royal Institution. But the work now before us shows us that Chemistry, Anatomy, and Physiology did not in reality fill up the entirety of these fifty years, and that they were but its episodes or entertainments. The diseases of soldiers, either serving in hot climates abroad, or invalided home to the chilly latitudes of Chatham, have formed the

staple subject of the scientific life of a man whose long possession (we do not say, enjoyment,) of the post of Inspector-General, must have devolved upon him an immensity of other work, of what he himself speaks of in the words of Avenbrugger, as the *alia tædia ac labores*, of reports, returns and statistics.

Dr. Davy tells us in his preface that it was his intention to have entitled his work simply "Contributions to Pathology," but that upon the advice of a friendly critic he gave it the more comprehensive designation which stands at the head of this review. We think he has done wisely in acting upon this hint; for, besides pathology, we find in his work much that is valuable upon the etiology and therapeutics of disease; to say nothing of the hygiene and prophylaxis which we have, as indeed we had a right to expect, from one so well qualified by his varied opportunities to speak about them. Indeed, we are disposed to think that Dr. Davy has somewhat unfairly narrowed his own claims to our attention by his specialising the diseases of which he writes as "Discases of the Army." It is true that the cases recorded are mostly cases of soldiers, of *men*, that is, and of men comparatively *young*; and that so far as this goes, the basis for induction which these cases afford is narrower than one which an equal number of Civil Hospital records would furnish. And the soldier, too, is put at a disadvantage as compared with the civilian, not merely by the nature of his duties even in time of peace, but also by the absurdities of his dress, by the badness of his dietary, and by the anti-hygiene of his lodging; so that his fevers, his dysentery, and to no small extent, his consumption also, are "Diseases of the Army;" and Dr. Davy's title may not seem to be needlessly self-disparaging. Much, however, of this volume will be found of service to every Practitioner of Medicine; the disquisitions on the Latency of Phthisis, on Deaths from Alcoholic Poisoning, and on the coagulation of the Blood during Life within the Vessels, will be as useful to the civilian who may never leave the United Kingdom, as to his Professional brother abroad, either in or out of Her Majesty's service.

In the sixteen chapters which, together with an introduction, make up the four hundred and odd pages of the book, we find the following subjects treated of:—Fevers, Dysentery, Cholera, Liver diseases, Phthisis, Pneumothorax, Empyema, Hydrothorax, Pericarditis, Coagulation of the blood in the vessels during life and the softening of the fibrin, Pneumonia, Peritonitis, Cellular inflammation, Aneurism, Deaths from alcoholic poisoning, Sudden deaths from violence, Calculi and Entozoa, and lastly, Peculiarities of organs as to form and position. Each of these somewhat multifarious subjects has a considerable number of cases detailed in illustration of it; the account of the cases is printed in small type, and to each history of symptoms, treatment, and result, we have affixed or prefixed the more noteworthy points it contains, and the more important inferences to which it may be supposed to lead. We suppose that an Inspector is not to be held responsible for the details of treatment; the details of the post-mortem examinations, however, carried out with a minute accuracy, and extending very frequently even to such structures as the thoracic duct, may, perhaps, owe something of their exactness to his superintendence, if not to his manipulation. The summings-up of the cases are written in such a style as we should expect from one so nearly related to the author of the "Consolations in Travel." Using ourselves quite another language than that employed by either of these authors, we may speak of them as pre-eminently "easy reading." No one man can be expected to give an unqualified adherence to all the opinions of any other man upon any extensive variety of subjects; and Dr. Davy's views are enunciated so intelligibly as to deprive his readers of that alternative betwixt assent and dissent which less clear writing leaves at the option of persons who are in the habit of thinking for themselves. The opportunity of exercising this privilege we will now proceed to give our readers by laying before them extracts from Dr. Davy's work.

Upon the Etiology of Malaria, Dr. Davy writes at considerable length. The following short extract will serve as a fair sample of the rest of the disquisition:—

"The most striking fact, perhaps, in relation to the mysterious origin of malaria, and which is unquestionable, is the irregularity of its occurrence, and this even in situations where it occasionally operates with extraordinary intensity and violence, and in regions remarkable for equability of climate, as in Sierra Leone, the West Indies, the interior of Ceylon, and the islands of the Mediterranean, and especially the Ionian Islands. I have known a tract of country in the interior of Ceylon free from fever for three or four years, and peculiarly healthy, and suddenly, without any apparent cause, becoming the reverse, the weather being as before, and all the circumstances of life of the inhabitants as before, so far as they were appreciable. For a few months destructive remittent fever has scourged the population, converting a flourishing district almost into a desert; and then, still without any apparent change of climate or other circumstance, its ravages have ceased, and the country has recovered its usual healthiness. Facts of the same kind have been witnessed in Malta, in all the Ionian Islands,—especially in Santa Maura, Zante, and Cephalonia,—in all the West India Islands, and in British Guiana."—P. 50.

A British Army Doctor speaks with some little authority upon these subjects, and we will quote next an instructive record of certain Ceylon experiences given some few pages further on, as they bear not a little upon the Etiology and Prophylaxis of malarious fevers:—

"In Ceylon, during the period of the rebellion which broke out in October, 1817, and was not subdued till October of the following year, our troops were tolerably exempt from fever so long as they were chiefly employed by day, and no longer; so soon as they were employed more by night than by day, particularly in convoys and the relieving of posts, fever became very prevalent and terribly destructive.(a) The natives of that island, no doubt warned by experience, carefully avoid the night air, and in the interior commonly have a fire in the sleeping-rooms. The temple of Kattragam, in Ceylon, is situated in one of the most unwholesome districts of that island, and which there is reason to believe has been converted into a desert by the destructive effects of fever. It is a place of pilgrimage, and a large number of pilgrims are reported to be swept off annually by the disease. Yet the officiating priest, a Brahmin, had resided there many years during the worst season, and with impunity. When I visited the temple, I found him in good health, active, and energetic, though of the sparest form. The only precaution I could learn which he took to guard against fever was sleeping in an inner room, without windows, having a fire in the middle of it on the floor, behind which, on leopards' skins, he lay at night, so that the outer air, before it could reach him, must have passed through or over the fire." P. 55, 57.

Of Dysentery, "the scourge of armies," we have a right to look for a full history in a work with such a title as Dr. Davy's. We should do his account of the disease injustice by any other plan than that of transferring it at length to these columns; of its therapeutics we will just say that he speaks of opium, ipecacuanha, and iced water as medicines to be swallowed, and of the latter agent often repeated as an enema, as well as of nitrate of silver and sulphate of zinc to be administered in the same way, coupled with anodynes, in terms of less qualified commendation than he usually employs when speaking of remedial agents. The following very characteristic history, however, of one of those arrangements of the Circumlocution Office, now so familiar to the British public, should be communicated *in extenso* to the public which has paid so high a price for the knowledge it conveys:—

"Fort Clarence was one of the line of works constructed during the war at a vast expense, under the dread of a French invasion. Its detailed history would be instructive, especially as showing the wretched and costly effect of a misplaced and false economy in converting it into a Lunatic Asylum. Its selection was founded on the principle of saving the expenditure that would have been needed to build a proper Asylum. Even in the vain attempt to warm its subterraneous rooms and passages thousands of pounds were wasted. After

(a) "At one station in the outlying district of Welasse, every white soldier sent there was attacked with fever, with the exception of the officer commanding and the Medical officer in charge, who were least exposed to the night air; the mortality was terrible; out of about 254 men, as many as 209 died, 45 only escaping alive. (See Stat. Report on Sickness among Troops in Ceylon, p. 11, where details will be found.) The only special precaution taken by the two officers was to wash from head to foot daily with soap and water; this I learnt from the Assistant-Surgeon, and he laid stress on it: and they avoided exposure to the night air. I recollect another instance during the same rebellion almost on a par with the preceding. A party of about seventy strong was formed of picked men from the light companies of two or three regiments, at head-quarters in Kandy, for the purpose of relieving a post in danger of falling into the hands of the enemy. They had to fight their way there and back, sleeping one night in the open air. After their return, every man was taken into Hospital with fever, with the exception of the commanding officer, and very many of them died."

repeated reports of Medical officers on its unfitness it was closed in 1844, and its inmates were transferred to Shorncliffe, afterwards to Yarmouth, and eventually—viz., in 1854—the establishment was broken up; the officers were removed to Cotton Hill Institution, Staffordshire, the privates to Bow Asylum, Middlesex. The mortality in the Asylum, in connexion with its principal cause, tubercular disease of the lungs in the three different classes of patients,—viz., officers, privates, and women, is strikingly corroborative, keeping in mind their different accommodation. Of the officers, they residing in a house of ordinary construction, the mortality from 1819 to 1834 was at the rate of 19 per cent.; of the women, the wives of soldiers nearly similarly quartered, it was 18 per cent.; whilst of the privates quartered in the casemates it was 39 per cent."—Note to p. 165.

Further on, at page 210, we find some valuable remarks upon the effect which the depressing monotony of the soldier's peace-life, and of his dietary, both at home and abroad, has had in swelling the per-centage of deaths from phthisis in the army. After confirming from his own extensive experience the report of the Commissioners upon the working of the British barrack, with its curtailed cubic space and its contravention of the laws of decency as well as those of sanitary science, Dr. Davy concludes as follows:—

"In the dress of the soldier, till very recently, effect on the eye seems more to have been regarded than either comfort to the wearer, or his health. The tight buttoned-up coatee, so long in use when on parade and duty, and especially on march, was better contrived to interfere with healthy respiration than to allow the lungs their free action. This portion of the dress was open to other objections; nor were other articles, such as the stock, the cap, etc., of a kind to be exempt.

"Now, if tuberculosis, if pulmonary consumption, be an asthenic disease, as, I believe, is now generally admitted, whatever cause tends to impede the due aëration of the blood, either directly, as by compression of the chest, or indirectly, as by stinting the supply of air, or by circumstances vitiating its quality; whatever tends to weaken the bodily frame, as by not affording a sufficiency of wholesome food, and in that wholesome variety required; whatever further has a tendency to depress the spirits and create mental weariness,—cannot but be operative in predisposing to and favouring the growth of tubercle. But, in the instance of the soldier, we see that all these causes have, more or less, acted together. Can we, then, be surprised that pulmonary consumption should have been so prevalent and fatal as it has hitherto proved in the British army?"—Pp. 212, 213.

We are inclined to suspect that the musketry drill in the days of Brown Bess was by no means so severe an exercise as is the rifle drill in these times of Long Enfields, and that over-exertion has now-a-days a good deal to do with the development of tubercles in the *half-set body* of the recruit. Professor Aitken has shown that this cause is an active and important one in modern Chatham, though, from the change of weapons, we may suppose it, like the "Practical Medical School," to have counted for much less in the days of Dr. Davy. The following extract from a very pleasing, though non-professional, book illustrates the working of over-exertion in the production of phthisis:—

"Among the modes here," says Mrs. Trench, speaking of Vienna in 1800, "I chiefly dislike the use of running footmen. It is so cruel, and so unnecessary. These unhappy people always precede the carriage of their masters in town, and sometimes even to the suburbs. They seldom live above three or four years, and generally die of consumption. Fatigue and disease are painted in their pallid and drawn features; but, like victims, they are crowned with flowers and adorned with tinsel."—*Remains of the Late Mrs. R. Trench*, page 72. London: 1862.

We cannot take leave of Dr. Davy's book without drawing attention to a most remarkable instance of a post-mortem temperature as high as 113°, which he records as having occurred in a case of cellulitis with multiple abscesses. The explanation which Dr. Davy suggests for this phenomenon is not that which Professors Savory and Draper would, or Dr. Alison did, give; his facts, nevertheless, will be used in support of their theories of a power belonging to the tissues of drawing the blood through the capillaries even after somatic death, and of the persistence in them of a vegetative life of nutrition and secretion even after the entire cessation of nerve-life and muscular force.

We have already said that Dr. Davy's book is what is trivially called "easy reading." The extracts we have made from it will show our readers that it deserves higher praise than this. Every single page bears marks of original investigation and independent unbiassed thinking; and some entire chapters may be instanced as likely hereafter to be referred to as the fullest repertories of the facts they deal with. We may instance, in proof of our assertion, Chapters 13 and 14.—"Upon Deaths from Alcoholic Intoxication," and "Cases of Suicide and of Deaths from Accidents." References to the writings of other men who have travelled over the same ground before him do not abound in Dr. Davy's book, and such references as are made are rather to works which have appeared within the last few years than to the Annesleys and Johnsons. Perhaps an Inspector-General finds little time for literature till he has to affix the letters "H.P." to his other titles. Be this as it may, we find (page 60) a reference to literature as recent as the British Association Report for 1861 within three pages (page 63), of an allusion to the fact of albuminuria being present in many fevers expressed in the somewhat archaic terminology which called albuminuria "the *serous* condition of the urine." It is in this work alone, we make bold to say, that such nomenclature as that of "aspera arteria," for "trachea," is to be found side by side with the neologian terms "embolus" and "thrombosis." But it is to be remembered that this selfsame book (page 113) shows us that its author was old enough to write a Report upon Cholera in August, 1819, and yet not too old to republish it, with much besides, in July, 1862, and it will then be allowed that the connexion set up between the two terminologies is less wonderful than that thus established between the two eras.

FOREIGN CORRESPONDENCE.

AUSTRIA.

Vienna, September 15.

ON THE NERVES OF THE HEART.

Dr. Von Bezold, one of the most distinguished pupils of Professor Dubois Reymond, and who has already made many important researches in the physiology of the nervous system, has recently investigated the relations of the heart to the brain and the spinal cord. Since Professor Weber had made known the influence of the pneumogastric nerve upon the movements of the heart, it was generally admitted that a connexion of this organ with the cerebro-spinal system was only established by means of the vagus. Dr. Von Bezold has, however, found that there are nervous fibres in the cervical part of the sympathetic nerve, the irritation of which produces an acceleration of the pulse, and an increase of the pressure of the blood in the arterial system. The section of these motor fibres is followed by a temporary or permanent retardation of the heart's movements, and by a diminution of the pressure of the blood. Finally, he has shown that the action of the cervical part of the sympathetic upon the heart may be entirely prevented by strong irritation of the pneumogastric nerve. In the course of these investigations it appeared that there are motor nerves by which a much more intimate connexion of the heart with the cerebro-spinal system is established than by the vagus. If rabbits are completely paralysed by small doses of woorara, and the vagi and the cervical part of the sympathetic are then cut, we may by irritation of the medulla oblongata produce a very considerable increase in the velocity of the pulse, and augmentation in the pressure of arterial blood. These effects are observed almost immediately after the commencement of the irritation, and last much longer than the irritation itself, whether it may have been mechanical or electrical. If in such animals the spinal cord be cut at any part above the seventh cervical vertebra, the pressure of blood in the carotids falls instantaneously to above one-fourth of its normal height, even if the section of the cord has not been accompanied by any loss of blood. The pulsations which had before been very strong and loud, are enfeebled, the sounds of the heart become almost inaudible, and the movements are retarded. On the contrary, the heart's action remains unaltered, if the cord be cut in the region of the third or fourth dorsal vertebra. There is no change either in the pressure of the blood or the frequency of

the pulse, if after the section of the cervical part of the cord, the medulla oblongata or the central part of the cord is irritated. But if the peripheral portion of the cervical part of the cord is excited after the section, the pressure of blood and the velocity of the pulse may return to their normal condition.

From these and other experiments the existence may be inferred of a new motor nervous centre for the movements of the heart, which is seated in the medulla oblongata itself, or in the brain. The fibres of this centre course through the cervical part of the cord, leave it between the seventh cervical and the fifth dorsal vertebra, and, running through the lower cervical and the upper dorsal ganglia of the sympathetic, go towards the heart, where they form the nervi cardiaci medii and infimi. This centre, which possesses a considerable tone, and by which the heart is permanently animated, produces by its normal action three-fourths of the whole power of the heart, while by its abnormal irritation the energy of the contractions may be increased to six times that force which is possessed by the heart, when animated by its ganglia only. The same centre is an antagonist of the pneumogastric, the inhibitory influence of which extends not only upon the ganglia of the heart, but also upon the function of the new centre described above. There is a reflex connexion between this centre and the sentient cerebro-spinal fibres. It is simultaneously excited whenever the animal makes any attempts at considerable movements, even if these cannot be executed on account of the paralysis produced by woorara; and it is this centre to which the acceleration and augmentation of the heart's action must be referred, which we observe whenever terror, fright, or other sudden psychical affections come into play.

Carlsbad, September 20.

THE CONGRESS OF GERMAN NATURALISTS AND PHYSICIANS.

The thirty-seventh annual meeting of the Congress of German Naturalists and Physicians was opened here the day before yesterday; more than 500 members from all parts of Germany and Austria being present. As yet there are only few of our leading men from northern Germany here, most of whom were dissatisfied with the choice of an Austrian town as the seat of congress; and the majority of those present consist of Medical Practitioners from Austria proper, Bohemia, Saxony, Bavaria, etc. Patients who have been sent to this Spa for the cure of abdominal plethora and congestion of the liver, are aware that until now we have had no "Kur-Saal" which could successfully compete with the magnificent establishments at Baden-Baden, Homburg, and Wiesbaden, etc. This want has at last been supplied, and a building of considerable dimensions had been got ready just in time to be inaugurated by the meeting of this year's congress. The hospitality of the inhabitants has provided lodgings for all members free of expense; the town is gaily decorated with innumerable flags and garlands; and concerts, balls, theatrical representations, excursions in the neighbourhood, torchlight processions, and other amusements serve to diversify the scientific pleasures which form the real connecting link between the members of congress.

The proceedings were opened by a short speech of Professor Löschner, of Prague, after which an Imperial commissioner and the burgomaster of Carlsbad welcomed the meeting in that choice German which is the peculiarity of Austrian officials. Professor Schultz Schultzenstein, of Berlin, then spoke "on Life and Death in Science;" and Professor Seegen, an eminent Physician at this Spa, gave an interesting account of the origin and properties of mineral waters. The congress then formed itself into eleven different sections, viz.:—1. for mineralogy, geology, and paleontology. 2. For botany and physiology of plants. 3. For zoology and comparative anatomy. 4. For physical science. 5. For mathematics and astronomy. 6. For chemistry and pharmacy. 7. For anatomy and physiology. 8. For medicine. 9. For Surgery and ophthalmology. 10. For gynaecology. 11. For mental science, and Medical jurisprudence. The Medical section again subdivided, and formed special sections for diseases of children and balneology.

In the following I give a short summary of the proceedings of the Medical section which have as yet taken place. Dr. Eiselt, of Prague, communicated his views on the propagation of miasma and contagium, which have already been mentioned in your journal. Dr. Erhard, of Berlin, read a paper on physical diagnosis of diseases of the ear, and insisted upon the importance of relative degrees of susceptibility for sound as symptoms of various diseases of the membrana tympani and the ossicula. Dr. Knop then gave a somewhat abstruse account of what he called "paradoxy of volition" with regard to criminal actions; after which M. Weisse, of St. Petersburgh, spoke on vaccination. A discussion of some interest then ensued, in the course of which it was remarked that, if vaccination was performed during the stage of incubation of genuine variola, the course of this latter disease was not nearly so severe as usual. It was cases of this kind which were generally taken hold of by the adversaries of vaccination for showing that vaccination was no real preventive of small-pox; while they, on the contrary, plainly proved the advantages of vaccination.

In the section for Surgery and Ophthalmology a discussion took place on the operation of subcutaneous herniotomy as proposed by Dr. Langenbeck, of Göttingen (not identical with Professor Langenbeck, of Berlin), almost all speakers being unfavourable to that operation. The subject of necrosis by poisoning with phosphorus then came under consideration; after which Professor Arlt, of Vienna, spoke on the causes of failure of the operation of extraction for cataract. He said that, even if the operation was well done, vision might yet be destroyed, either by want of caution in the patient himself, whereby the union of the wound was endangered, or by incomplete removal of the cataract. As regards the first point, he mentioned that the movements of the eyelids were chiefly influential in preventing union, and recommended, instead of the ordinary English plaster, the charpie-bandage, which facilitated the inspection of the patient's eye, if he complained of pain, etc. Concerning the second point, the Professor remarked that, if the cataract was not yet matured, or too much so, small pieces of the cortical substance of the lens were frequently left behind. These did not cause opacity and tumescence of the cornea, as was generally believed, but effusion of the humor aqueus, irido-choroiditis, and finally panophthalmitis. The first symptom of this was an opacity resembling arcus senilis. In order to prevent such accidents, Professor Arlt has successfully resorted to iridectomy after extraction, if the cataract was not mature or had been fluidified; but if inflammation of the whole eyeball had set in, a compressive bandage was the best remedy, whereby, it is true, vision was not saved, but at least the cornea and the substance of the eye were preserved. In another letter I shall give you a further account of the doings of Congress, the last sitting of which will be held on the 24th inst.

FRANCE.

Paris, September 26.

ON BRONCHOCELE IN DOMESTICATED ANIMALS.

M. Baillarger, the eminent Physician to the Bicêtre, has recently investigated the above subject, and made several discoveries of importance in physiology and pathology. He found that in a number of places in the departments of the Isère and Savoie, the greater number of mules had an immense hypertrophy of the thyroid body, and much larger than that generally seen in man. In one stable in Modane, amongst twenty animals, nineteen were affected with this disease; and of all the mules examined only one-third were free from it. Amongst horses, bronchocele is not nearly so frequent, but still much more so than is generally believed. In one place seven horses were examined, which were well fed and cared for, and lodged in light and well-ventilated stables; and yet four of them had bronchocele. The same disease was found to exist, in a diminishing ratio, in dogs, cows, sheep, goats, and pigs. The greater of these domesticated animals is no doubt due to the same endemic causes by which it is produced in man. The fact, that it is most frequent in mules, is in so far interesting, as these animals are sterile, and sterility is a characteristic feature of cretins. It is asserted that the drinking water of La Maurienne rapidly produces hypertrophy of the thyroid body; and young men liable to the conscription are known to make use of this means to escape military service.

OVARIOTOMY IN FRANCE.

Another unsuccessful case of ovariotomy has occurred in the practice of M. Parisé, Professor of Clinical Surgery at the Medical School of Lille. The operation seems decidedly not to prosper on French soil, and I am afraid that if, as has been the case until now, fatal results continue to be obtained, the operation will again be rejected, as only fit for *les Anglaises*,

by the majority of French Surgeons, who were a short time ago rather inclined to give it a fair trial. The patient on whom M. Parisé operated was an unmarried woman, aged 57, of good constitution, nervous temperament, and rather thin; she had lost the catamenia at the age of 52. She had travelled as lady's maid in England, Italy, and all over France, and was sufficiently intelligent to give a precise history of her case. Twenty-two months ago she became rather unsettled in her mind, and somewhat morose; lost her appetite, and was occasionally attacked by diarrhœa. The abdomen then began to enlarge, and soon to such a degree that respiration and locomotion were impeded. She was tapped for the first time in April, 1861, again in October; in January, 1862, in March, and in May last. She was then, as she continued to refill rapidly, admitted into the Hospital of Lille, where she was again tapped, when 26 pounds of yellow gelatinous fluid escaped. The cyst was, however, not completely emptied, so that there could be no doubt of its being multilocular. The patient, who was well acquainted with the Medical and Surgical treatment of ovarian disease, and with the successful results obtained with ovariotomy by English Surgeons, declared that she intended running the risk of that operation, rather than to die inch by inch. After the last tapping, the cyst again filled rapidly, and occupied the whole abdomen, the intestines being pushed against the vertebral column, and the stomach and liver towards the chest. There was considerable fluctuation, and pain in the left side of the abdomen towards the lumbar region. The general health was much impaired; the patient was emaciated, had a small pulse of 96 to 100 when she was in bed; she had little appetite, and the skin was dry and rough. M. Parisé, being afraid of adhesions, hesitated a long time to operate, until the patient insisted so earnestly upon it that he did not feel justified in postponing the operation any longer. There being at that time an epidemic of erysipelas in the Surgical wards of the Hospital, the patient was transferred to a private house in order to avoid the chance of infection.

The operation was done in the following manner:—The patient having been placed under the influence of chloroform, and the bladder having been emptied, a vertical incision of twelve centimètres was made to the left side of the linea alba, whereby the skin and the sheath of the rectus muscle were divided. After the peritoneum had been incised, the cyst became visible. The adhesions yielded easily; it was emptied by means of M. Charrière's trocar; the pedicle was tied, the cyst cut off, and the wound united by five metallic sutures. M. Parisé does not say whether he left the pedicle outside or inside. There had been very little bleeding. The patient bore the operation remarkably well; eight hours afterwards (at 5 p.m.) she was quiet, had no pain either in the abdomen or in the wound; no sickness, no vomiting. The bladder was emptied without difficulty. The pulse was quiet, regular, rather full, and had fallen from 96 to 72; the patient said she had not felt so well for a long time. She had a good night; and was given some opium, and slept for six or seven hours. In the morning, however, the pulse rose to 90. At 1 p.m. it was very small, and had risen to 120; the skin was hot and dry; there had been no rigors, no sickness, no vomiting; the abdomen was neither distended nor painful. The charpie, which covered the lower part of the wound, was saturated with some sanguinolent serum. There was difficulty of micturition, for which the catheter was employed. Ice was given internally, to what purpose it is difficult to imagine; a good dose of brandy or champagne might have been more advisable. At 2 p.m. she became much excited, and had four liquid evacuations; she complained of anxiety in the epigastrium. The pulse was then very small and irregular, and had risen to 180. Respiration was short, accelerated, and almost entirely costal; the face, lips, and tongue had a cyanotic appearance; the voice was scarcely audible. She sank rapidly, and died at 5 p.m. in a state of asphyxia. The post-mortem examination showed the abdomen to be nearly flat, as after operation. The wound was in a fair way of uniting. There were traces of recent inflammation in the whole extent of the peritoneum, which was reddened and dirty; there were no false membranes, but a gelatinous fluid, in the cavity; no clot, no hæmorrhage.

Dr. Bickersteth, brother of the Bishop of Ripon, and Surgeon-in-Chief of the Somerset Hospital at the Cape, died on August 5, of epilepsy.

GENERAL CORRESPONDENCE.

SUBCUTANEOUS INJECTION OF QUININE.

Letter from Dr. James M'Craith.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have to report a continued success in the treatment of intermittent fever by the subcutaneous injection. Dr. Chasseaud reports having treated 150 cases with success by this method, which we may fairly call his: others may have done this before; and the subcutaneous method applied to various diseases, and by various mediums, is not new; but he has the merit of showing its value on a large scale, when applied to intermittent fever, and with solution of sulphate of quinine. To his 150 cases I can add 30 or 40 cases of success. The solution we at present employ is the following:—℞ Aquæ distil ʒj., sulph. quinia ʒj., and nitric dilut. sufficient to dissolve completely the quinine in the stated quantity of water. The advantage of the nitric acid is, that it dissolves the sulph. quinine easily, requiring about one drop for each grain, and the salt is not disposed to crystallise easily; perhaps the acid muriatic may make a more difficultly crystallising combination. The crystallisation of the salt in the fine nozzle of the syringe is the point aimed at. In no case was there any local irritation after the injection of this solution.

The spirit solution mentioned in my last had some inconveniences: the spirit evaporated quickly, and left a clammy state of the instrument, frequently plugging up the nozzle of the syringe, and this required spirits of wine to get rid of. It left the fingers of the operator clammy. It was followed by some slight irritation, and in a few cases a lumpy feeling remained under the skin. Dr. Chasseaud, by using a small screw syringe, made expressly for subcutaneous injections, has accurately determined the quantity of solution used—20 drops, equivalent to 2¼ grains of sulph. quinine, are sufficient. This syringe is useful, as each turn of the screw piston is equivalent to one drop.

Now, we find this "injection method" of treating intermittent fever extremely useful in various ways, besides the immense economy of quinine, which of itself is of extreme importance, I will endeavour to point out a few of its advantages which we have already recognised. There is a class of cases common enough in this country, and in all warm malaria countries, and known as cases of "remittent fever." Those cases are accompanied by gastric symptoms, pain in the epigastrium on pressure, red tongue, fever almost constant. Though "au fond" is an intermittent, its cause malaria, still it is disposed to assume a continued type, and very frequently passes into the typhoid. Those cases are described by Mailhot, who has written the truest, most honest, and scientific description of malaria fever. In his work they are described as "pseudo continues," and "pseudo continues devenues typhoides." Now, those cases bear very badly the dose of quinine necessary for their resolution; on account of the state of the stomach the exhibition of quinine seems to throw the patient more quickly and more certainly into the typhoid state. The subcutaneous injection has not this inconvenience; on the contrary, so far as we have had an opportunity hitherto of testing it, the result is most satisfactory. I have had one such case, a most successful one, and Dr. Chasseaud at the Hospital has had, he tells me, five or six successful. If only applied to this class of cases, Dr. Chasseaud's method is of very great use. Another fact which was noticed is this:—Quinine given by the mouth, immediately before the commencement of an anés, invariably aggravates that particular anés, though preventing the return of others; whereas the injection practised under similar circumstances, even after the cold stage has commenced, has invariably reduced that anés to almost nothing; has, in fact, cut it short, the attack lasting a quarter of an hour in place of six or eight hours. Dr. Chasseaud has had this result in many cases kept on purpose many days to observe the natural course of the disease (chiefly tertian), and kept many days after the injection to observe if any return took place. Now, in pernicious or malignant ague, in which every anés puts the patient's life in danger, to stop a coming anés is frequently of vital importance. The dose by the mouth, absolutely necessary, aggravates the anés if given just at its commencement, and so added to its

danger; whereas the injection modifies it in a most favourable manner. This is of great importance in the treatment of those cases.

The instruments I use are very simple: a small lancet just sufficiently broad to make an opening in the skin large enough to let the nozzle of an Anal's syringe pass, with the syringe itself. Upon injecting the solution I press it in all directions in order to diffuse it in the cellular tissue, before I withdraw the syringe, in order that it may not escape on withdrawing the latter.

I am, &c.

Smyrna, August 26. JAMES M'CRAITH, M.D.

THE LATE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

A STATUE of the late Director-General, Thomas Alexander, C.B., has just been erected by public subscription in Prestonpans, near Edinburgh, his native town. The statue, which is eight feet in height, is said to be a faithful portrait of Mr. Alexander, and, as a work of art, reflects great credit on the skill of Mr. Brodie, of Edinburgh, the sculptor. The following is the speech of Lord Elcho, delivered at the ceremony of inaugurating the statue. It contains a letter from Miss Nightingale, which is now for the first time made known to the public. The letter is interesting as well from the strength of feeling displayed in it, as from the high testimony it affords of the worth of the services and character of the late Director-General:—

Lord Elcho, who was received with loud applause, said—"Sir George Suttie, Ladies and Gentlemen,—I have been invited by the Committee to inaugurate this statue, which has been erected to the memory of the late Dr. Alexander. I did not hesitate to accept the invitation, for I considered it a very high honour, and I was anxious to take this opportunity of expressing my own thorough appreciation of the career, the character, and the services of Dr. Alexander. I cannot, however, but think that there are others to whom this duty would perhaps have been better entrusted,—I mean some of those who were more intimate with Dr. Alexander than it was my lot to be, and who might therefore have spoken, not as they had heard of him from others, or as they had read of him in public documents, but with the knowledge of his private as well as of his public character, and with the warmth and affection which personal knowledge and intimacy alone could give. I apprehend, however, that it was the wish of the Committee to give as much as possible something of a public character to this ceremonial, and therefore, as member for the county, I have been invited to attend, and I do so with very great pleasure on this occasion. (Applause.) Now I have said that I was anxious to bear my testimony, or to express my thorough appreciation of the character and career of Dr. Alexander. They are too well known to his friends, they are too well known to the public to render it necessary for me to detain you here with any lengthened panegyric on his services; but I would shortly point out what appear to me to have been the salient points in his character which are deserving of notice, which are not only an honour to the man himself, but which may serve as an example and incentive to his fellow-men. Dr. Alexander's Professional career extended over a period of something like five-and-twenty years. It was, I think, in the year 1840 that I had the good fortune to make his acquaintance, when he was Assistant-Surgeon to the 2nd Battalion of the Rifle Brigade, in which my brother, Colonel Charteris, then served. I well recollect my brother introducing me to him as one of the best fellows and finest-looking men he had ever seen, and I am sure that every one now present will bear witness to the accuracy of that description. I did not then know that Dr. Alexander was an East Lothian man. I did not know for some time after—until I canvassed his father, Mr. Alexander—and a dour man I then found him to canvass, although I am happy to think and believe that in this place where I know I have so many friends, he is one of my warmest and best supporters. (Hear, hear.) In the course of the canvass I went to his house—and many of you going there must be aware that in itself it is a sort of museum. There are trophies there of all kinds—skins and warlike instruments from all parts of the world—indeed, I am standing on one of them now—and I then learned that they had been sent by his son, my friend Dr. Alexander of the Rifle Brigade. These outlandish trophies are records of Dr. Alexander's services in all parts of the world—in the West Indies, in Canada, in the Crimea, in Turkey, and at the Cape. Wherever Dr. Alexander served, ladies and gentlemen, he did so with honour to himself and with advantage to those who were entrusted to his care, for he was ever zealous and determined to do his duty, and he ever showed an anxious regard for the wellbeing and comfort of the British soldier. In his behalf he did not hesitate to risk his own Professional reputation and prospects, by incurring, when circumstances demanded it, even the displeasure of his superiors. In his behalf he was prepared to venture, in the fearless discharge of his duty, in the face of every difficulty and every obstacle; and where others were too apt to shrink from responsibility, Dr. Alexander readily courted it, and no personal consideration ever withheld him from urging, advocating, insisting on, aye, even to the extent of giving and taking on his own sole individual authority, whatever he believed to be necessary for the comfort and health of his troops. (Hear, hear.) As a Surgeon in the field he was as distinguished for his coolness and physical courage as he was by his moral courage and assiduity in the Hospital and the camp. What more need I tell you of Dr. Alexander but that he was a skilful Surgeon, and an honest man? It is to him, in a great measure, that the British Army is indebted for the organisation—the successful organisation—of its Medical Department, and it is to him that the Surgeons of the Army mainly owe their present improved position and prospects. (Applause.) Gentlemen, a career such as this of Dr. Alexander, and a character such as his, I am happy to say, could not fail in this country to meet with its just reward; and although he was taken from amongst us in the midst of his usefulness and in the prime of life, we have the satisfaction of feeling that he died full of honours and at the head of his Profession—of that department of his Profession which he did so much to reform and serve. Now, in this short sketch I have given of the career and character of Dr. Alexander, what are the salient qualities in which he appears to have been pre-eminent? I know not what you may think, but to my mind, at least, it appears that he is not so much remarkable for his Medical skill and resources, great though these undoubtedly were; it is not for his physical courage in attending to his wounded when he himself was exposed to the fire of the enemy, for I am willing to believe, indeed I am certain, that the want of that commonest of all qualities is the exception in the British Army, not only with the combatants but with the non-combatants of the Army; neither was it for the energy with which he combatted and overcame successfully all obstacles; but, to my mind, the one great quality for which he was remarkable, was his great moral courage—the greatest of all moral qualities. (Hear, hear.) Look around you amongst your friends in private life, and see how many possess, and how many of our statesmen in public life possess, this great quality of moral courage. In private life the want of it brings men into difficulties and trouble, and in public life the want of it is equally the peril of our nation; for if at any time we are in danger, as we recently were of having our institutions Americanised, it will be from this cause—from the want of honesty and moral courage on the part of our public men. I say then, all honour to him who possesses this great quality, be he prince, peer, or peasant, for he has in him one of the main elements of greatness. He is born, wherever his sphere of life may be, to influence and command his fellow-men. No man possessed this quality in a higher degree than the late Dr. Alexander. You trace its workings through the whole of his most successful career; but as it is great occasions and times of great trial which bring out great qualities in men, so it was in Bulgaria and in the Crimea, amidst the horrors of cholera and the appalling misery and mismanagement of the first winter campaign before Sebastopol, that the moral courage of Dr. Alexander shone so conspicuously forth. But I need not dwell on these times. It is now, perhaps, an old story, for since the Crimean campaign we have had the Indian Mutiny and two China wars. Nevertheless, the recollections of the gallant services rendered there, when our soldiers were rotting in the trenches and in the camp before Sebastopol, is still fresh in our memories—rotting there as they were, from the want of organisation and from mismanagement, especially in those departments connected with the health and victualling of our troops. I say these recollections are still fresh on our memories; and if, on reading the public records of these times, we mourn over the sufferings of our

gallant and enduring soldiers, at the same time let us rejoice when we find men who manfully grappled with the evils they had to deal with, and whose lives were a bright spot in the surrounding gloom. (Applause.) And I venture to say that no one distinguished himself more on that occasion than Dr. Alexander. (Cheers.) I say deliberately, from a deep conviction, founded on published documents, that if at that time we had had at the head of the Medical Department in the Crimea, or at the head of the department at home, a man like Dr. Alexander, with energy, foresight, and moral courage, much of the evils, and much of the suffering and loss of life we had to lament would not have taken place. ('Hear, hear,' and applause.) Now, ladies and gentlemen, I have thus given you my humble estimate of the character of Dr. Alexander. It is an estimate formed, as I told you, not from personal knowledge or acquaintance so much as from published documents and hearsay evidence. But I have here with me the testimony of one who had ample opportunity of judging of Dr. Alexander, and whose authority is beyond dispute. It is a letter from a lady whose name is well and justly worshipped by the British soldier, while it is a household word among ourselves—I mean Miss Nightingale. (Cheers.) Miss Nightingale, I need not tell you—for the whole country sympathises with her—is and has been long suffering from severe illness; but, on being appealed to in reference to our late friend, she says—'I must be ill indeed, not to say my word for Dr. Alexander. During these two years from 1857 to 1859, I think Mr. Herbert met him nearly every day while they were in town at my house, where all the regulations and reports were written.' And here, gentlemen, when we are doing honour to the memory of Dr. Alexander, let us not forget to do honour likewise to the memory of Mr. Sidney Herbert, in whom the British soldier never had a truer, abler, or more devoted friend, and whose life fell a sacrifice to the labour and duties of his office. (Cheers.) Here, gentlemen, is Miss Nightingale's testimony to the late Dr. Alexander:—'I can truly say that I have never seen his like for directness of purpose, unflinching moral courage, and honesty. These were the qualities which made his loss a public disaster. His independence, his high disinterestedness, were undoubted. He never sought advancement for his own ambition—never except to carry out the public service. And when he had obtained it, he never used it except to do the highest service he was capable of. Throughout the whole of the Russian war his published correspondence shows that he cared for no man or thing, if either stood in the way of the public interests. He might have gone on smoothly enough in his routine duties, would he but have left ill alone. But this was not his character. Everywhere—at Gallipoli, where he seized the blankets for his sick—in Bulgaria, where he fought such a fight for his men in the opening prologue to the Crimean tragedy—and again, throughout the Crimean tragedy itself he showed the same fearless devotion, incurring thereby a serious personal responsibility, in order that his men might not perish. Most able in the discharge of his own Professional duties, he at the same time knew that the Army Medical officers were not dealt with as they ought to have been, and he was looked up to as the representative of all the best of them, and of their wishes and ambitions. Even in the Crimea, his character had pointed him out to all observers for the highest position in his department. When the Royal Commission on the "Sanitary State of the Army" was issued, Mr. Alexander's service on it was considered so necessary that he was sent for from Canada. He afterwards served on a no less important, though less well-known commission, for drawing up the new "Army Medical Regulations," which gave our Army Medical officers sanitary powers, and a position of usefulness which no Army Medical officers in Europe have but ours. In all these, he showed the same clearness of sight in discerning the same directness of course in bearing down on his object. On the retirement of his chief, Lord Panmure called him to be Director-General. And in the short time he occupied the office he showed high administrative ability, as well as his old firmness and honesty—his great characteristics. He had great difficulties, but he manfully breasted them all; doing the work personally of nearly his whole office, lest any failure at so critical a time should ensue. At this time he used to keep medicines beside him in the office to relieve the effects of hard work, which no inducement would make him lay aside, because he was convinced that it was in the way of his duty. As was predicted more than once to him, he fell at his post as true a sacrifice to duty as if he had fallen on the field. His death caused a regret extending far beyond the limits of his own department; for the public instinctively knew that it had lost one of its best servants.—Ever yours, FLORENCE NIGHTINGALE.' That, then, is the character which Miss Nightingale gives of Dr. Alexander. (Cheers.) I cannot myself but think that to his family and friends such a character as that coming from such a person as Miss Nightingale would be as valuable, if not more valuable, a record and memorial of his services and character than even the statue we have met here to inaugurate—(applause)—and I am sure the public will receive this letter from Miss Nightingale with satisfaction and pride, as showing that even in the midst of her sufferings and illness she never fails to take a deep and warm interest in whatever affects the comfort and welfare of that gallant army for which she did so much, and for which she has sacrificed her health."

(At this stage the statue was uncovered, amid loud and reiterated cheering; and the band struck up the national anthem.)

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the ordinary General Meeting of the Fellows held on Tuesday, September 30, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Messrs. Reginald Edward Thompson, M.B., 4, Upper Belgrave-street, and Edward Dalzel Dickson, M.D., Constantinople.

Also, on August 2, David Graham Miller, R.N., previously an Extra-Licentiate, was admitted a Member.

The following gentlemen passed the Preliminary Examination in the subjects of General Education on September 24:—

Messrs. Christopher Haynes Jenner Hogg, James Francis Hamilton Richardson, Francis William Underhill, Joseph Goodall, Arthur Gibson Galland, George Bowen Millett, Frederick Tickell Prince, William Bell, Richard Frederick Nell, Osman Vincent, Walter Greene, David Linn, Thos. Beaird Burton, William Harris Butler, John James Fraser, Wm. Jennings Burt, John Smith Wallbridge, Robert Owen Pritchard, Richard Edward Hodgson Raines, Wm. James Guthrie Bedford, Joseph Channing Pearce, Richard Pughe, Martin Heelas, and Charles Humphrey Weld.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, September 25, 1862:—

Alfred William Latham, Darlaston, Staffordshire; James Bathgate Dickinson, Howdon-on-Tyne; Frederick Little, Eye, near Peterborough.

The following gentlemen also on the same day passed their First Examination:—

John Hackney, University College; F. J. Ryder, St. Thomas's Hospital; Edward Pope, London Hospital; Charles O. Aspray, St. Mary's Hospital.

The following lady and gentlemen passed the Examination in Arts, and received Certificates of Proficiency in General Education on September 27, 1862:—

Edward Bowles Crawfoot, Certificate of Special Proficiency. Alfred S. Argyle, Parkfield-house, Heanor; Chas. J. Bennett, 96, Winchcomb-street; William Bent, Manchester; George Birch, Kingsland; Robert Croft Beck, Islington; Wm. Percy Bridges, Cirencester; Edward Burchell, York; John Carless, Woolwich; Edward Carpenter, Lambeth; Richard Cresswell, Lewisham; Jas. Lawson Cooke, Market Drayton; Edwin Doudney, Bristol; John Robert Dunn, Warbleton; Thomas C. Eager, Ripley; Franklin A. Eglis, Barcombe; Francis Ewbank, Ryde; Elizabeth Garrett, 22, Manchester-square; Jas. Hickinbotham, Loughborough; Ridley Thos. Hilder, Woking; Chas. Edward Howard, Linton; Jas. Hall, Bolton; Edgar A. Jones, Lowesby Vicarage; Chas. A. Keele, Londonderry; John Edward Kenyon, Doncaster; Chas. Jas. Langdon, Mecklenburg-square; John Lloyd, Abergele; Edward James Leverton, Truro; Wm. Bevan Lewis, Cardigan; Alex. McGregor, Acton; Francis S. Manisty, Leatherhead; D. W. Morris, Capel Dewy; Anthony H. Martin, Eversham; Alderson Newsam, Old Kent-road; John Oakley, Shrewsbury; William Henry Peck, Finsbury-square; Thos. Lloyd Place, Wickham Market; Robert Wm. Powell, Norwich; J. Price, 24, Canonbury-square; C. A. Robinson, Jamaica; Geo. Wm. Smith, Grantham; Wm. Heath Strange, Streatley; Robert Sephton, Culcheth; W. L. Shepard, Gray's-inn-road; Fred. W. Satzmann, Brighton; Francis H. W. Taylor, Bermondsey; Thos. H. Tidswell, Spalding; Arthur T. H. Trevor, King's College; Wm. Turner, Reading; Frederick Waterhouse, Bolton; W. J. Williams, Manchester; and Walter O. Withers, Shrewsbury.

[We are informed that the Apothecaries' Act does not permit the Society to refuse to examine any person who can furnish proof of having pursued the required course of study.—ED.]

APPOINTMENTS.

ADAMS.—John Smyth Adams, L.K.Q.C.P. Irel., L.R.C.S. Irel., Surgeon R.N. (seniority April 16, 1862), has been appointed to the *Perseus*.

BATESON.—John Moses Bateson, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N. (seniority October 20, 1859), has been appointed to the *Perseus*.

BATT.—Augustus Batt, M.D. Univ. St. And., M.R.C.S. Eng., and L.M., L.S.A. Lond., has been appointed Deputy Coroner for Oxfordshire.

BLAIR.—Dr. Thomas Blair, of Howwood, Paisley, has been elected Medical Officer to the Parochial Board, Dailly, Ayrshire, *vice* Alexander Blair, L.R.C.S. Edin., resigned.

BRENT.—Robert Brent, F.R.C.P. Edin., M.D. Univ. St. And., M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Parishes of Otterton and Bicton, in the St. Thomas' Union, Exeter, *vice* Mr. William Huxtable, resigned.

CHRISTIE.—Johnstone Christie, M.D. Univ. King's Coll. Aberd., L.R.C.S. Edin., Surgeon R.N. (seniority January 23, 1856), has been appointed to the *Barossa*.

COLEMAN.—Edmund Walter Coleman, M.D. Univ. St. And., M.R.C.S. Eng., Assistant-Surgeon R.N. (seniority August 1, 1861), has been confirmed to the *Warrior*.

CROCKER.—Mr. Stephen Crocker has been appointed Dispenser to the General Infirmary, Leeds, *vice* Mr. John Hirst, resigned.

CUNNINGHAM.—Charles L. Cunningham, L.R.C.S. Edin., and L.M., L.S.A. Lond., Assistant-Surgeon R.N. (seniority August 4, 1860), has been confirmed in the *Cambridge*.

DEMPSTER.—Staff Surgeon-Major J. C. Dempster, M.D., has been appointed to act as Deputy Inspector-General of H.M.'s Hospitals of the Presidency of Bengal and Benares Divisions, and to take charge (in lieu of Dr. J. S. Prendergast, who was appointed temporarily) of the Inspector-General's Office at Calcutta, consequent on the departure for England (and subsequent death) of Dr. Tice, C.B., Deputy Inspector-General of Hospitals.

FURSE.—Edwin Furse, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the Bishops Nympton District of the South Molton Union, Devonshire.

HARRIS.—John Pitt Harris, F.R.C.S. Irel., L.R.C.P. Edin., L.M. Coombe, Lying-in Hosp. Dub., LL.D. Trin. Coll. Dub., has been elected Medical Officer and Public Vaccinator to the Newport Dispensary District of the Nenagh Union, County Tipperary, *vice* William Harris, F.R.C.S. Eng., and L.M., L.S.A. Lond., resigned.

HEAD.—Richard Lovell Bluett Head, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N. (seniority January 17, 1857), has been appointed to the *Barossa*.

LLOYD.—William Harris Lloyd, M.D. Univ. St. And., L.R.C.S. Irel., has been confirmed as Surgeon to H.M.S. *Petrel*.

MORTIMER.—Edward Townsend Mortimer, Surgeon R.N. (seniority April 25, 1862), has been appointed to the *Stromboli*.

PATRICK.—William Patrick, Surgeon R.N. (seniority May 10, 1856), has been appointed to the *Sutlej*.

ROBERTSON.—Charles Alexander Lockhart Robertson, F.R.C.P. Edin., M.R.C.P. Lond., M.B. Univ. Camb., M.B. (*ad eun.*) Oxon., L.R.C.S. Edin., has been appointed Editor of the *Journal of Mental Science*, *vice* Dr. Bucknill, appointed Visiting Physician to the Court of Chancery.

ROPER.—Charles Harriott Roper, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer to the Corporation of the Poor, Exeter, Northern Division, *vice* William Withal James, F.R.C.S. Eng. (exam.), L.S.A. Lond., L.M. Dub., resigned.

RUBY.—Henry G. Ruby, Assistant-Surgeon R.N. (seniority December 31, 1853), has been appointed to the *Squirrel*.

THOMSON.—James Thomson, Assistant-Surgeon R.N. (seniority November 13, 1854), has been appointed to the *Fisguard* (additional).

TUKE.—Thomas Harrington Tuke, M.D. Univ. St. And., F.R.C.P. Edin., M.R.C.P. Lond., M.R.C.S. Eng., has been appointed General Hon. Sec. to the Association of Medical Officers and Hospitals for the Insane, *vice* Dr. Robertson, appointed Editor of the *Journal of Mental Science*.

WILLIS.—Simon Armstrong Willis, M.D. Univ. St. And., L.F.P.S. Glasg., L.S.A. Lond., Surgeon R.N. (seniority April 16, 1862), has been appointed to the *Eclipse*.

DEATHS.

BEAN.—July 31, at Mangalore, East Indies, Joseph A. Bean, M.D., of the 8th Regiment, N.I.

BICKERSTETH.—August 1, at Cape Town, Cape of Good Hope, Henry Bickersteth, M.D. Univ. St. And., F.R.C.S. Eng., Surgeon-Superintendent of Somerset Hospital, aged 49.

BUDDO.—September 22, at Kinburn House, St. Andrew's, Dr. David Buddo, late of the Hon. E. I. Co.'s service.

BURNES.—September 19, at Manchester, Dr. James Burnes, K.H., LL.D., F.R.S., Justice of the Peace for the County of Middlesex, formerly Physician-General at Bombay.

HARLE.—September 26, at No. 6, Dalhousie-street, Glasgow, Thomas Harle, M.D. and L.S. Roy. Univ. Rostock, L.S.A. Lond., aged 49.

HURT.—September 26, Samuel Hurt, of Mansfield, Nottinghamshire, M.D. Univ. St. And., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond.

JACKSON.—September 30, at Kew, Surrey, Dr. John Jackson, aged 83.

LITTLE.—Recently, Samuel Little, M.D. Univ. Edin., L.R.C.S. Edin., Assistant-Surgeon R.N. (seniority August 9, 1859).

LUMSDEN.—July 23, at Meerut, Bengal, George Charles Lumsden, Assistant-Surgeon 8th Hussars.

POLLOCK.—Recently, William Pollock, M.D., Surgeon, late of the 53rd Foot, on half-pay.

RUTHERFORD.—September 24, James Rutherford, of Sligo, M.D., Surgeon R.N. (seniority April 2, 1803), on the retired list, aged 83.

STEVENSON.—August 19, at Nassau, Bahamas, Archibald Stevenson, L.R.C.S. Irel., Surgeon R.N., September 27, 1861; Surgeon H.M.S. *Petrel*, February 22, 1862.

WATSON.—September 20, after being an invalid for many years, William Watson, of Walkerith, Lincolnshire.

PROFESSOR LANGENBECK, of Berlin, has arrived here, commissioned by the Prussian Government to inspect and report on the surgical instruments in the Exhibition.

A SINGULAR hysterical panic occurred one day last week in a sewing school-room at Manchester. One of the girls suddenly went off into an epileptic fit, and almost instantly another girl was attacked by hysteria, and then another and another, until quite a panic prevailed,—altogether nineteen of the girls becoming affected in less than an hour.—*Guardian*.

DR. WIBLIN'S OPERATION — DEATH OF THE PATIENT.—We regret to learn that Dr. Wiblin's patient died on Monday, the ninth day after the operation. We are informed that the cause of death was probably gangrene of the portion of tissue covering the sac which contained the irreducible hernia. Every other part of the wound promised well.

SOME illnatured remarks have appeared in the *Times* respecting the death of the "head boy" at Harrow School, and the alleged want of a Hospital for the boys when sick. We suspect that some persons who talk of Hospitals scarcely know what they mean. Certainly, the nearer the sick-room in a school approaches the domestic type, and the less it is like a Hospital ward, the better. All accumulation of sick persons is an evil. They require to be secluded from each other, as much as they do from those who are well.

EFFECTS OF FREEZING POTABLE WATERS.—M. Robinet, as the result of numerous experiments, states that, by freezing, the small quantities of calcarian and magnesian salts contained in potable waters are eliminated just as are the soluble salts from sea-water. The purity of the water thus obtained is such, when the freezing has taken place under favourable circumstances, that it may be frequently employed in place of distilled water.—*Bull. de l'Acad.*, 1862, No. 16.

THE *Guardian* newspaper, speaking of *Macmillan's Magazine* for October, says:—"Next, is one of those horrible treatises on human physiology which tell of the parasitic plants which grow on and in the human body. Of all the chapters from the book of Nature, those which treat of the morbid conditions of the body are the most disgusting; and the fact that they find readers in our magazines argues a morbid taste on the part of the public—the same state of mind that would lead a person to go and see the horrid monster which they call Julia Pastrana."

ACCLIMATIZATION OF SPONGES.—M. Lamiral, who has lately been to the coast of Syria with a view to obtain sponges for transplantation, has now returned, and presented a detailed report of his proceedings to the Société d'Acclimatation of Paris. M. Lamiral distinguishes three kinds of sponges for which there is a demand—the fine and soft sponge, called *abiand;* the fine and hard sort, called *achmar;* and lastly the common sort, called *cabar* by the Arabs. These sponges are found in the Levant within the 36th and 33rd degrees of latitude—that is, between Alexandretta and Saida. It is now universally acknowledged that sponges belong to the animal kingdom, and are an aggregate of cellules built up by gelatinous polypi similar to those which construct madreporæ, porites, and other polypifers. When the sponge is first gathered at the bottom of the sea, it is covered with a black but transparent gelatinous substance, resembling vegetable granulations, among which microscopic white and oviform bodies may be distinguished. These are the larvæ destined to perpetuate the species. When arrived at maturity, they are washed out by the sea-water which incessantly flows through the sponge; they then swim along, by the aid of the vibrating cilia or hairs with which they are provided, until they reach a suitable rock, to which they attach themselves, and there commence a new life. This emigration of the larvæ from the parent sponge occurs about the end of June and beginning of July. The fine qualities of sponges are chiefly found at a depth of fifteen fathoms or thereabout; the common sponge lies at depths varying between twenty and thirty fathoms. At Tripoli (on the coast of Syria, not of Africa) M. Lamiral engaged some divers, who commenced operations on the 21st of May. The sponges gathered were immediately placed in boxes, through which a stream of sea-water was constantly made to flow, the animal matter being, of course, left on them, and protected from injury. These sponges arrived at Marseilles on the 17th of June; thence they were taken to Toulon and the islands of Hyères, where stone troughs, with five sponges in each, were sunk in different places. The success of the experiment will not, of course, be known until next season.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. S. Scott Alison.—We shall be happy to receive them.

We regret that we are unable to insert Births and Marriages.

E. F. W.—A Medical student of University College could not undertake the translation of a better book than the one he mentions.

Arminius.—The entire fee is £31 10s.—*i.e.*, £21 for the Membership, and £10 10s. extra for the Fellowship.

Mr. T. A. F. Scott.—The letter has been sent to the National Vaccine Institution.

The history of Rennet Wine, and the mode of preparation, will be found in the *Medical Times and Gazette*, Vol. ii. for 1862, p. 56.

We regret we cannot publish Dr. Caplin's letter on the Electro Chemical Bath.

Gentlemen who send newspapers will oblige by marking the passage to which attention is called, or else sending a private letter respecting it.

Eddra.—A poor woman, named Mary Howorth, is alleged to have died of starvation through the neglect of the relieving officers of the Gautholme Union. The evidence of Mr. Sutcliffe is as follows:—

"I made a *post-mortem* examination of the body of Mary Howorth. The appearance of the body was plump. I first opened the abdomen. On cutting through the skin I found a considerable thickness of fat. I examined the stomach. It was healthy externally and internally; it contained only a little mucus. On the omentum, or covering of the bowels, was a considerable deposit of fat. The bowels were healthy; the liver also was healthy. The gall-bladder was about half-full of gall, the kidneys healthy. I then opened the chest, and found the lungs in a very unhealthy state; they appeared to have been recently in a state of inflammation. I think the cause of death was pulmonary congestion. Though I was then satisfied of what was the cause of death, I opened the head. The vessels on the membranes of the brain were full. The substance of the brain itself was healthy. The congestion of the lungs would not arise from want of food. The gall-bladder is generally full when there has been a deficiency of food. There was nothing in the appearance of the body to lead me to the conclusion of want or starvation. I positively say that she has not died of starvation."

The question arises, can a *fat* person die of starvation? We think so, taking the word in its general sense. A fat person's heart may cease to beat for want of proper nourishment; a life may be lost through want of care and nursing and medicine, even though it be true that one or two shillings may have been expended in coarse food the day before death.

Poaching?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you inform me whether an Army Staff-Surgeon is allowed by the spirit and letter of his commission to attend civilians, and to make Professional charges for such attendance? You can readily see the influence this would naturally have upon the relationship of the civil Surgeon with the new comer into his neighbourhood. I am, &c.

Quæstor.

Registration of Foreign Degrees.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly tell the Cape Medical Profession whether the holder of a Giessen diploma, obtained by examination, is entitled to register under the new Medical Act in England?

I am, &c. A Cape Town Subscriber.

Cape Town, Cape of Good Hope, August 21.

[We believe not.—Ed.]

Idiopathic Tetanus.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In answer to "Aliquis," allow me to state that no analysis of the blood was made, simply because neither the Coroner nor myself had any doubt of the cause of death.

There could have been no motive in the man's committing suicide; and not the slightest suspicion rested on the people whom he resided with, "who were considerable losers by his untimely end." I believe tetanus in all cases to be the result of some idiosyncrasy in the individual affected.

With regard to thousands of persons with distended colon not being affected with idiopathic tetanus, I can only observe that hundreds of persons cut and lacerate themselves every week of the year, and yet traumatic tetanus is comparatively a rare disease. I am, &c.

W. Hewitt.

Ipecacuanha in Dysentery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your Number of Saturday last is a communication from Mr. Gayton, of Brick-lane, of a case of chronic dysentery treated with ipecacuanha.

In this communication Mr. Gayton says:—"Upon referring to Dr Watson's Lectures and other authors, I find no mention of ipecacuanha. I conclude, therefore, that the properties of this drug in the treatment of chronic dysentery are either not sufficiently valued or known."

Without going into the question of the *novelty* of Mr. Gayton's treatment, permit me to refer him to some not utterly unknown authorities on the efficacy of ipecacuanha in dysentery.

In *my* copy of Watson's Lectures, Vol. ii. p. 544, is the testimony of Sir J. M'Grigor to the success which attended the treatment of dysentery by venesection and Dover's powder.

In Pereira's "Materia Medica" (article, "Ipecacuanha") occurs the following:—"In dysentery ipecacuanha has gained no trifling celebrity, whence its name of 'Radix antidysenterica.'" Dr. Pereira also gives the names of several Medical men who had successfully used ipecacuanha in dysentery. I am, &c. D. W.

[We believe that Mr. Gayton claims that he is a reviver, not a discoverer.—Ed.]

"Doctors' Bills" *versus* the Medical Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The new Hall of the King and Queen's College of Physicians in Ireland, of the laying of the first stone of which, by his Excellency the Earl of Carlisle, you gave an account some two months ago, rises apace, and will, no doubt, when finished, be a handsome building, worthy of the object for which it is designed, of the learned body it is to receive within its walls, and of its noble founder (in one sense of the term).

Precisely opposite to it, and within a very few yards, for Kildare-street is narrow, is a mean looking house, yclept, we are informed by a large projecting sign, "Levenston's Medical Establishment." Mr. Levenston does not "wilfully and falsely pretend to be, or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or Apothecary, or any name, title, addition, or description, implying that he is registered under this [the Medical] Act, or that he is recognised by law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary;" he merely puts himself forward upon his whitened window, which is, moreover, decorated with four or five coloured bottles, as "S. Levenston, Accoucheur," his name being supported on the one side by the word "Medical;" on the other by the word "Advice." As an additional means of attracting attention to this unqualified man's proffer of "Medical advice," the walls of our city are defiled with certain yellow, lozenge-shaped placards, of which I enclose a specimen. Passing along one of our quays yesterday I observed an *afficheur* in the act of posting them; accosting him, I asked had he one to spare. "Oh, certainly," he replied, handing me two, "they are only Doctors' bills." Surely, Sir, the provisions of the Medical Act ought to be extended to afford to the public protection against the impositions of such *charlatans* as the author of these vile productions. I am, &c.

Dublin, September 20. Civis Dubliniensis.

A Physician's Prayer.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The discussion at the last meeting of the British Medical Association on the propriety of commencing with prayer reminded me of one in the "Life of the late Mason Good," written by him, which he was desirous might be appended to the future editions of his "Study of Medicine." It was intended for private use, and on that account may not be unacceptable to the readers of the *Medical Times and Gazette*. The following is a copy:—

I am, &c. Senex.

Form of Prayer, July 27, 1823,—"Which I purpose to use, among others, every morning, so long as it may please God that I shall continue in the exercise of my Profession; and which is here copied out, not so much to assist my own memory, as to give a hint to many who may perhaps feel thankful for it when I am removed to a state where personal vanity can have no access, and the opinion of the world can be no longer of any importance. I should wish it to close the subsequent editions of my 'Study of Medicine.'

"O Thou great bestower of health, strength, and comfort! grant Thy blessing upon the Professional duties in which this day I may engage. Give me judgment to discern disease, and skill to treat it; and crown with Thy favour the means that may be devised for recovery; for with Thine assistance the humblest instrument may succeed, as, without it, the ablest must prove unavailing.

"Save me from all sordid motives; and endow me with a spirit of pity and liberality towards the poor, and of tenderness and sympathy towards all; that I may enter into the various feelings by which they are respectively tried; may weep with them that weep, and rejoice with them that rejoice.

"And sanctify Thou their souls, as well as heal their bodies. Let faith and patience, and every Christian virtue they are called upon to exercise, have their perfect work: so that in the gracious dealings of Thy Spirit and of Thy Providence, they may find in the end, whatever that end may be, that it has been good for them to have been afflicted.

"Grant this, O Heavenly father, for the love of that adorable Redeemer, who, while on earth, went about doing good, and now ever liveth to make intercession for us in heaven. Amen."

Dr. Olinthus Gregory, the biographer of Dr. Good, adds the following remarks:—

"For several years the spirit of this prayer was exemplified in Dr. Good's practice. The sympathy he manifested for his patients was of the highest order. When he prescribed, he was in the habit of praying for Divine direction; on administering a medicine himself, he was often known to utter a short ejaculatory prayer; and, in cases where a fatal issue was inevitable, he most scrupulously avoided the cruel delusion too common on such occasions, but with the utmost delicacy and feeling announced his apprehensions."—*Life of Mason Good*, pp. 412, 413.

Infanticide.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Cases of "suspected" infanticide have become of late so shockingly numerous, that this almost national evil calls aloud for a speedy and decisive remedy. I have used the word "suspected," as applicable to this crime, advisedly, and from a desire to respect the decisions of juries, who seldom, if ever, convict of the capital offence; and who are fortified in their merciful view by the difficulties which the Legislature itself has interposed in favour of the innocence of the accused. To kill a child in its mother's womb is no murder, because murder is defined by Lord Coke to be the unlawfully killing any reasonable creature in being, with malice aforethought. And even if a mortal wound be given to a child whilst in the act of being born, as, for instance, if as soon as the head appeared it were actually cut off, this would be no murder. To constitute murder it must be proved that the entire child has actually been born into the world in a living state, and the fact of its having breathed or even cried is not conclusive proof of that. There must be an independent circulation in the child before it can be accounted alive, so as to be the subject of the crime of murder.

I believe I have fairly stated the law as regards infanticide. What marvel, then, if juries are slow to convict, or can in any case see their way

clearly to a conviction! Even if they, beset with such impediments, do but entertain a reasonable doubt, of course the prisoner is entitled to the benefit of it. Under these circumstances juries are only too glad to discover a loophole for their consciences by finding the prisoner guilty of concealment of birth. But even here difficulties crop up. Under the recent statute 24 and 25 Vic., cap. 100, s. 60, it is necessary to prove not only that the dead body of the child was secretly disposed of, but that the person or persons so disposing of it endeavoured to conceal the birth thereof. Formerly the mere fact of disposing of the dead body secretly was deemed sufficient evidence of the concealment of the birth, and this even although the mother had previously allowed the birth to be known to some persons. Indeed, any secret disposal of the dead body, although but temporary, was deemed sufficient to constitute the offence within the Statute. Not so now. It must be affirmatively shown that by such secret disposition the woman endeavoured to conceal the birth.

Such being the safeguards with which the Legislature in mercy to the "fallen" has fenced around the proof of this secret crime, might not one step more, on the side of mercy, be advanced, by the establishment of Foundling Hospitals for the reception, without scrutiny, of the innocent offspring of sin and shame? By this means many a base-born infant, doubtless a child of sorrow, but yet cast in the likeness and fashioned after the image of its Creator, might be "trained up in the way it should go," and might become an ornament and an honour to its country. Many a Magdalen, "whose sins were many," might thus feel assured of forgiveness, if society would but, in this practical form, echo the words of the "Man of Sorrows,"—"Neither do I condemn thee; go and sin no more."

I will not try the patience of your readers by confuting the hackneyed assertion, that by thus extending a helping hand to suffering humanity we should be offering a premium to immorality, because we are nowhere forbidden to do good lest evil should follow. It is the want of sympathy and the dread of the world's frown which, much more than any pecuniary difficulties, impel the "woman to forget her sucking child, and the mother the fruit of her womb."

Should these remarks be deemed not altogether unsuitable for a Medical publication, I should feel honoured by their insertion in your Journal.

September 30. I am, &c. A Barrister.

Tincture of Digitalis in Delirium Tremens.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As much has been written of late upon large doses of tincture of digitalis—quite a new remedy to old students—I think, perhaps, you might esteem the following case worthy a place in your valuable Journal:—

On Saturday, September 13, I was called to go on board a private gentleman's yacht, who was sojourning here, to see his steward, who, they said, had been ailing some days. Upon seeing my patient, a strong, robust man, aged 45, who was sitting close to a large fire in the cabin, and who, when he saw me, asked what I wanted in a hurried manner, and when told I was a Medical man called to see him, his reply was, "I know all about it; he has come to sign a certificate to put me in an Asylum, because you could not get rid of me otherwise." Upon asking him how he was, he said, hurriedly, "Quite well;" and then afterwards commenced trembling of hands, face, etc. I asked if he had been drinking lately, and whether he was subject to such attacks? They said he had only been steward for six weeks, and knew very little of him. I said that it was necessary he should be immediately removed to some hotel where I could properly attend to him, which was immediately done. I saw him half-an-hour afterwards; found him bathed in a profuse sweat, talking continually, and, whenever he moved, the trembling of limbs came on; tongue moist and creamy; no headache; has had scarcely any sleep; says he has had diarrhœa several days, with sickness; pulse 60, weak and compressible. Says he has eaten nothing for nearly ten days, but kept himself alive with sherry and brandy-and-water. I ordered him the following mixture, as he seemed greatly prostrated:—℞. Ammon. carb. 3j., tinct. opii. ℥ss., mist. camph. ad ℥vj., one-sixth to be taken every two or three hours until sleep was produced, with an occasional glass of sherry and soda-water as the sickness continued. Upon my second visit in the evening I found him quieter, but no sleep; no diarrhœa; sickness only at intervals. Ordered the following pills every two hours: Gum opii. gr. vj., ft. pil. iv., and to be kept very quiet.

14th.—Found he had no sleep all night, and his tongue covered with a brown fur. Ordered him the following directly: Hyd. chlorid. gr. vj., pulv. scammon. ℥ss ft. pulv. iij. cap. i. 3tiis hôris, donec alvus respond. Upon visiting him at 1 p.m. found the bowels had not acted, but he complained of great pain in stomach. Ordered the following injection directly: ℞ ol. Ricini ℥ij., white of egg, inf. senna gr. i., and said I would see him again in an hour. Upon my visit found the injection had only brought away a few black lumps of fæces; and as he appeared in pain, I ordered him ol. Ricini ℥iss, stat., and if the bowels were not open in two hours to let me know. I had a visit from his male attendant in about half an hour, to say that his bowels had been well open. I ordered him to give him immediately some good beef-tea, as he said he said he was so weak he could scarcely sit up. I then requested that he might take gum opii. gr. ij. stat., and gr. ij. every hour until sleep was produced.

15th.—Upon my early visit this morning, found he had been so restless all night that with difficulty he was kept in bed; scarcely any trembling of limbs; profuse perspiration; pulse 70, flexible, weak, and compressible; no headache; says he will not keep in bed as it is weakening him too much. As I had now tried opium to its full extent, he having taken nearly thirty grains, I thought it right to have recourse to some other means. Having seen of late the wonderful effects of digitalis, I ordered him ℥ss tinct. stat. et repet 4tis hôris, with tinct. lupuli 3ij. in camphor mixture. Was summoned suddenly to my patient at 1 p.m., four hours after he had taken the draught, and found him on a mattress on the floor bathed in a sweat and breathing hurriedly; pulse 70, strong, irregular; feet cold; ordered him immediately to bed, and mustard plasters to feet and calves, and ice to head, and to take a full dose of morphia in a glass of sherry and water, and to be kept very quiet. I visited him again in four hours, found he had slept for nearly two hours quietly, but that he now insisted upon getting up. I told him that if he did not remain quiet I should put on a strait-waistcoat. I ordered him the following, to be taken every three or four hours if necessary: ℞ Ammon. carb. 3i., tinct. lupuli 3iij., inf. digitalis (Pharmacopœia) ad ℥vj. Upon my visit this evening found he had slept at intervals for about four hours, and was in all respects quieter. Wanted to know if he might have some bread and cheese and ale; this I consented to, provided he would promise to remain quiet.

17th.—From this date he improved gradually, only having slight attacks occasionally. I continued the mixture every four or six hours. He has now returned to England convalescent, or nearly so.

I am, &c.

J. Whitehead, M.D.

47, Rue Napoleon, Boulogne-sur-Mer, France.

COMMUNICATIONS have been received from—"Nenagh Guardian;" President and Treasurer of St. Thomas's Hospital; Dr. Caplin; Dr. Jas. Arnott; Dr. Ussher; Farnham; Dr. Smart; B. W., Gloucester; Dr. Wilson Fox; Dr. Sieveking; Samuel C. Noble; Dr. Anstie; Westminster Hospital; St. Thomas's; Society of Arts; Dr. A. Bonthron; Dr. S. Scott Alison; M.B., Cantab.; Hieronymus; University College; "Preston Guardian;" Mr. Hussey; Dr. J. Whitehead; Mr. Forster; Mr. Lowe; Senex; Mr. W. Hewitt; A Barrister; Dr. R. Walsh; Dr. Edwin Lee; Mr. T. Scott; Mr. O'Doherty; Dr. Thorowgood; Arminius; Dr. Wilks; Mr. E. F. Willoughby.

VITAL STATISTICS OF LONDON.

Week ending Saturday, September 27, 1862.

BIRTHS.

Births of Boys, 899; Girls, 843; Total, 1742.
Average of 10 corresponding weeks, 1852-61, 1695·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	575	565	1140
Average of the ten years 1852-61	643·5	579·6	1223·1
Average corrected to increased population..	..	..	1251
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	2	15	3	2	5	7
North ..	618,210	2	5	10	6	4	16	19
Central ..	378,058	..	9	17	..	1	9	9
East	571,158	4	15	22	1	2	25	20
South ..	773,175	2	7	20	3	6	8	17
Total.. ..	2,803,989	8	38	84	12	16	63	72

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·871 in.
Mean temperature	56·6
Highest point of thermometer	69·8
Lowest point of thermometer	39·2
Mean dew-point temperature	52 7
General direction of wind	Variable.
Whole amount of rain in the week	0·17 in.

APPOINTMENTS FOR THE WEEK.

October 4. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

6. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

7. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

8. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Hunterian Society (Council, 7½ p.m.) Dr. Daldy, "A Summary of the Cases of Heart Disease, contained in the Unpublished Records of the Society, with Remarks."

9. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

10. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

BRITISH ASSOCIATION.

SECTION D.—ZOOLOGY.

FRIDAY, OCTOBER 3.

ON THE ZOOLOGICAL SIGNIFICANCE OF THE BRAIN AND LIMB CHARACTERS OF THE GORILLA, AS CONTRASTED WITH THOSE OF MAN.

By Professor OWEN, F.R.S.

PROFESSOR OWEN premised that the cast which he exhibited was not that of the brain of the gorilla, but of the interior of the skull of an adult male of that ape; it, therefore, presented a slightly exaggerated view of the size of that organ; but the proportions of the cerebrum to the cerebellum, and the size and general disposition of the convolutions of the cerebrum, were shown. He contrasted with it the cast of the brain of a man, from the museum of Professor Clark, taken after the brain had been hardened for the purpose, and stripped of its coverings; it, therefore, showed some contraction of size; but the cerebrum and cerebellum being equally condensed, their relative proportions were preserved. The brain of the highest known ape showed no increase of the relative extent of cerebrum over cerebellum beyond that of the small South American monkeys. The cerebrum extended over the cerebellum, not beyond it. He then contrasted the sudden and great development of the cerebral organ presented by a man of the lower order; great increase in absolute size; still greater superiority in relative size to the bulk and weight of the body; the gorilla having the trunk, and head, and upper limbs of a giant, supported on dwarfed, but powerful grasping legs. This evidence of the cerebral organ in the largest and most anthropoid of the anthropoid apes was alone wanting to test the validity of the zoological character of the group represented by man, as given in the author's Classification of Mammalia. Professor Owen then pointed out the close and gradual transition in the Quadrumanous series, from the gorilla's brain to that of the smooth and unconvoluted cerebrum of the marmoset, such simplification of the cerebrum being unaccompanied by difference of its relative horizontal extent to the cerebellum; and he noticed the intermediate exceptions, where, as in the maimon baboon, through the restricted development of the cerebellum, the smooth, unconvoluted posterior part of the cerebrum even extended beyond the cerebellum,—an exception of that kind, like the long nose of the *Semnopithecus nasicus*, which serves to prove the rule. Passing on to the Lemurine series, he showed how the still descending cerebral organ graduated into that of the ordinary Feline. The sudden advance of so supremely important an organ as the brain, in the human race, and the marked hiatus between that highest grade of its structure and the next step below, attained by the orangs, chimpanzees, and gorillas, was one of the most extraordinary in the whole range of Comparative Anatomy. It was associated with the intellectual capacities, the power of framing general propositions, and of expressing thought in articulate speech. Parallel with this series, and with a like sudden and great interval between the highest ape and man, was the progression of the modifications of the foot, which were traced up from the Carnivora, through *Galeopithecus*, the aye-aye, and other lemurs, the platyrhine and catarhine Quadrumana, up to man. The bones of the foot of the gorilla were contrasted with those in the human subject; the progressive strengthening of the inner toe served only to make the foot a more powerful grasping hand. Not until we arrived at man did that digit present such proportions and position, associated with correlative modifications of all the other bones of the foot, as to change a "hand" into the organ mainly contributory to the erect position, and to justify the innermost being called "hallux," or great toe, for the purpose of succinctly defining the characters of the group, just as the relative position of the hind part of the cerebrum to the subjacent cerebellum affords the zoologist a convenient and precise definition of the posterior cerebral lobe, which human anatomists had failed to find in the structure of the cerebrum itself. The purpose of the present contrast of the brain and foot of the gorilla with those organs in man was to ascertain their value as zoological characters. The grounds on which Baron Cuvier had assigned an ordinal value to the foot of man were briefly given, and the parallel argument was carried out in support of the higher value to be assigned to the differential characters of the human brain. Professor Owen then briefly adverted to the chief objections which had been made to his order, *Archencephala*. One was, that the difference of structure was greater between the highest and lowest quadrumanous brains, than between the former and that of man. But, admitting this, it might be as logically objected that there was a greater difference between the foot of the gorilla and the ventral fin of a fish, than between the former and the foot of man. The comparison which really concerned the question at issue was not between remote links in the zoological series, but between the nearest known gradations; and the difference between the gorilla and chimpanzee, in regard to brain and foot, on the one hand, and between the gorilla and lowest variety of man on the other hand, was that with which zoology was concerned in the present classificatory discussion. A second objection was based upon, and derived its chief strength from, the arbitrary definitions and terms needed in zoological definitions. To the affirmation, that man alone had the hallux, or great toe, an emphatic denial was given, supported by a demonstration of the homologous bones in the hind thumb of the whole series of apes, and even in the short toe sustaining the "dew-claw" of the dog. But if the zoologist has been careful to define his "hallux," the value of such objection became patent. So with regard to the posterior lobe of the brain and its contained structures in man, if the zoologist, availing himself of those and other characters of the human brain, has been duly careful in his definition when availing himself of them for brief and concise zoological differentiations.

The CHAIRMAN moved a vote of thanks; and, calling for observations,

Professor HUXLEY, F.R.S., objected to the comparison of the cast of the cranial cavity of the gorilla with the cast of the brain itself of the man. He quoted Professor Wagner in support of the minor difference of size of brain, at least in a female, than was shown in the brains of the males of the two species compared. Quoting a diagnostic of the cerebral characters of man, which he attributed to the author of the paper, he affirmed the incorrectness of assigning to the Quadrumana a cerebrum covering only two-thirds of the cerebellum. On the contrary, the cerebrum extended over the whole cerebellum in the Quadrumana, as low down in the order as the small squirrel monkeys of South America. He adduced the evidence of Dr. Rolleston, Mr. Flower, and Professor Vrolik, in proof of the existence of the posterior cornu and hippocampus minor in such posteriorly-extended part of the cerebrum of Quadrumana, and contended that the difference between man and the ape was psychical, not physical—was manifested by attributes of the mind, not by modifications of the body.

Professor ROLLESTON, F.R.S., rose to confirm his friend's assertion as to the internal structures in the posterior lobes of the quadrumanous brain. He objected to Professor Owen's diagnosis, that it was limited to characters derived from the back part of the cerebrum; whereas the more important differences between the human and simial brains were shown at the fore part. He reflected on Professor Owen for omitting this consideration; and especially for neglecting the more important grounds of comparison and differentiation afforded by the cerebral convolutions, the characters and homologies of which had been left to be elucidated by the labours of continental anatomists.

Mr. W. H. FLOWER gave a detailed summary of the various structures he had met with in the posterior part of the cerebrum, extending over the cerebellum, in the Quadrumana; showing in some a greater development of the posterior cornua and hippocampi minores than in the human brain. He specially cited the marmoset monkey as showing a cerebrum co-extensive behind with the cerebellum; and adduced the case of the baboons in which, as Professor Owen admitted, the cerebrum extended beyond the small cerebellum.

The Rev. Mr. MOLESWORTH addressed the Section at some length, chiefly in refutation of Professor Huxley's assumption, that any powers of a living organism could be distinct from, and independent of, its organisation; and contended that the superior psychical manifestations of the human species must be associated with concurrent modifications of his bodily frame and organs.

After some remarks from Dr. HUMPHRY, Professor OWEN, in reply, repudiating the terms of the diagnosis of the archen-

cephalous type of brain ascribed to him, requested that a copy of his work "On the Classification and Geographical Distribution of Mammalia," might be sent for, meanwhile remarking that the ventricular extension in the quadrumanous brain, to which the anthropotomical terms, "posterior cornu" and "hippocampus minor," had been applied, being confessedly restricted to that part of the cerebrum overlying the cerebellum, did not affect or apply to that part of the human cerebrum, which he believed he had clearly and unmistakably defined in his diagnosis of man's cerebral characters. A copy of his work being handed in, Professor Owen first called attention to the figure of the unconvoluted brain of the marmoset monkey (p. 25, fig. 6), illustrating the character he had assigned to the quadrumanous brain in regard to the extension of the cerebrum over the cerebellum. So far from having ignored this structure, as charged upon him by his antagonists, he believed himself to have been the first to point it out, having described and figured the extension of the cerebrum over the whole of the cerebellum in *Midas rufimanus*, in a Paper on Cerebral Anatomy, communicated to the Royal Society in 1836. Then, adverting to Dr. Rolleston's animadversions, Professor Owen read the terms of his diagnosis, as given at page 25 of his work:—"In man the brain presents an ascensive step in development, higher and more strongly marked than that by which the preceding sub-class was distinguished from the one below it. *Not only do the cerebral hemispheres overlap the olfactory lobes and cerebellum, but they extend in advance of the one and further back than the other.*" Here the author remarked that it must be plain to every dispassionate and unprejudiced person, that the part of the cerebrum which man had in common with that which he had figured and described in Quadrumana, co-extensive, viz., with the cerebellum, was not propounded as the differential character of *Archencephala*, but only the further cerebral developments which were not shown by Quadrumana. Furthermore, that, so far from limiting his diagnostic character to the back part of the brain, he had set forth, and in the first place, the development of the fore part, in which the human cerebrum was peculiar, as "not only overlapping, but extending in advance of the olfactory lobes." With respect to the charge of having neglected the convolutional characters, Professor Owen next proceeded to quote from his diagnosis of the archencephalous brain:—"The superficial grey matter of the cerebrum, through the number and depth of the convolutions, attains its maximum in them."—(*Op. Cit.*, p. 26). It was true that he had not entered upon the extent to which the homologous convolutions could be traced in the human and inferior brains in the purely zoological communication which he had submitted to the Linnæan Society in 1857, and in the briefer compendium included in his "Reade's Lecture."(a) But he would ask Dr. Rolleston to refer to a Memoir on the Anatomy of the *Felis jubata*, communicated to the Zoological Society in 1833 (*Zool. Trans.*, Vol. i., p. 133, pl. 20), in which he would find an early attempt to determine the homologies of the cerebral convolutions. Here they were distinguished into "principal" or "primary," and into those of the "second degree;" and homologous ones, determinable in distinct species, were indicated by special letters, figures, and names. Professor Owen also appealed to Mr. Flower to look into the series of diagrams in the Royal College of Surgeons, for those illustrating the course of Lectures given by Professor Owen, when Hunterian Professor, "On the Comparative Anatomy of the Brain," in which the homologous primary convolutions in different orders of mammalia would be found to be distinguished by different colours. At that period, and prior to submitting his ideas on the classificatory value of the cerebral characters in mammalia, Professor Owen had been fully aware of the ventricular extensions in the supracerebellar part of the cerebrum, from the chimpanzee (Vrolik) down to the Lemurine *Tarsius* (Burmeister); but the assigning to mere fissures the high-sounding names applied by old anthropotomists to the well-marked structures in man, only verbally masked the real differences, and, as affecting the diagnosis which he had quoted, were quite beside the mark, since that part of the diagnosis referring to the back part or lobe of the brain, with its contained structures, was expressly restricted to the part of the cerebrum which extended, not merely over, but *further back than the cerebellum*. Professor Owen finally adverted to the absence of any comment on the direct purport of his present communication to the Section of Zoology, which had been the zoological significance or classificatory values to be attached to the differential characters of the foot and brain of man. Re-affirming the accuracy of Cuvier's estimate of the former, as indicative of the ordinal value of *Bimana*, Professor Owen inferred that "silence gave consent" to the higher estimate of the cerebral distinctions, which he had expressed by the sub-class *Archencephala*, and had now been able to illustrate by the brain of the gorilla.

(a) 8vo, 1859.

OPENING OF THE LONDON MEDICAL SCHOOLS.

UNIVERSITY COLLEGE.

Professor Wilson Fox delivered the Introductory Address, as follows:—

Gentlemen,—In the foundation of modern science—in the *Novum Organon* of Bacon, the following aphorism occurs:—"It is not possible to run a course aright when the goal itself has not been rightly placed, and the true and lawful goal of the sciences is none other than this, that human life be endowed with new discoveries and powers." Such being our goal as followers of the science of Medicine, it well becomes all students, as well as professors, being learners in common of the great book of Nature, to pause at such a season as the present to inquire whether we really have this goal in view, and whether the course in which we are proceeding towards it will lead us to the end which we desire to attain.

The way in which we have chosen to seek to fulfil our appointed duty in this life is one of the loftiest which can lie before any man—viz., to prolong man's life, and with his life his usefulness; to study the conditions which militate against his physical and mental well-being, so as to be able to point out the avoidable causes of sickness and death; and the defences by which the struggle against those which are unavoidable may be rendered less sad and painful. If these conditions can be fulfilled (and their performance complies with the lofty conditions imposed by the philosopher), we may feel indeed that the object of our life's journey is not a delusion, but that in its pursuit toil will be a delight, and labour welcome. It is, however, well to recognise that in proportion to the loftiness of our purpose is the greatness of its difficulty—for our path does not lie through well-trodden ways, of which the land-marks are easily known,—we have proposed for our solution the most complicated of problems, and have to unravel the most intricate order of facts which come under the cognisance of man's intellect; we have to deal with a being in whose organisation are involved the most complicated laws of all the phenomena which matter presents to our senses; in whom changes take place with a rapidity which, while they tempt curiosity to the utmost, seem perpetually to elude the desire to grapple with their laws, and to disappoint the longed-for "Eureka" of the Philosopher;—a being distinguished among all other forms of matter by a principle which has hitherto baffled all attempts to define its nature, as if, indeed, we might conclude that life, as such, could not be included under any one definition, but known only in its manifestations; and thus, clothed with a power which governs and complicates all known laws of matter external to himself, he finds himself placed among a series of external conditions upon which he acts and by which he is influenced. Impelled from within to act, he yet consumes his own organism in his ceaseless labour, and drawing his sustenance from the materials by which he is surrounded, he is ever inevitably tending towards an ultimate return to the same nature as the elements over which he believes himself capable of exercising a control, and yet feeling that in this ultimate dissolution he has that within him which shall escape the "bondage of corruption," and, in the death to which he is surely passing, find a higher and an enduring life.

Our task is, then, no light and easy one. It is to learn the external manifestations of this power which man has within him; to learn its effect upon other forces, and their action upon the materials of which he is composed; to learn the nature of these materials through the phenomena which they manifest; the form and structure of the machinery, the influences from without, and the causes from within, by which its mechanism may become deranged and its efficacy impaired, and what circumstances may tend either to pre-

serve or to restore. Have we ground for belief that we possess this power—that we can acquire this knowledge? The experience of the past answers affirmatively; and reason shows no cause why our knowledge should not steadily increase. But how is this complexity of laws to be reduced to their practical signification? How is it that the ages which have rolled away have left us with our object only imperfectly attained? The answer to these questions lies in the method and order adopted in our researches, and in the diligence with which that method is followed. The history of Medicine shows that its followers, impatient at the length of the way, desirous of some more speedy solution of the problem set before them than the laws of nature and of the human mind allow, have, in their ill-judged attempts to grasp generalities, only added to its complexity by passing too hastily to deductive reasoning, while the path of induction was the only one open before them. System after system founded in this manner has only led its followers into the morasses of doubt and perplexity, whence, if by chance escaping, they have exclaimed that the struggle was hopeless, and that the task was beyond man's endeavour. No, gentlemen, as was enunciated in this place by our late distinguished Professor of Medicine, towards whom, worthily as his place has been filled, I trust—now that for the first time we miss him from amongst us—it is not out of place to express how deeply Dr. Walshe's loss is deplored in this School by all who have had the privilege of witnessing his laborious search after truth, which no toil could daunt, no impediment discourage, as well as of learning, from his clear logic and brilliant powers of expression, the fact and laws of Medical science;—as Dr. Walshe so convincingly laid before us a few years ago, we may not yet apply the method of deductive reasoning to the generalisations of disease; our task is yet in the laborious and patient collection and comparison of facts, not hesitating to accept new ones, because they will not square with preconceived theory, but rejecting theory rather than fact. We have thus to study life in its twofold character of health and disease. As anatomists, to learn the structure of the frame, both in its grosser and in its finer parts; as physiologists, to study how the ends for which these structures are fashioned are accomplished; and in this investigation we shall have to call in to our aid, as well as find exemplification of, the subtlest laws of the other physical sciences. Further, we shall find that, to attain a true knowledge of the place of man as an organised being, we shall have to appeal to the simple structures of the animal and vegetable world; and in this varied field of knowledge we shall find that every difficulty and imperfection in the more elementary sciences reacts with double force when grouped in the ceaseless variations and complexities which prevail among the laws of man's physical nature. We have not simply to calculate in mathematical formulæ the results of a few laws: we have not so fully at our command both of the bases of inductive reasoning, experiment, and observation as are possessed by the students of the other physical sciences. Our experiments cannot be varied at will to ascertain agreements and differences between cause and effect; and conclusions drawn from animals can only establish certain large inductions, the application of which to man can only be determined with a greater or less degree of probability, unless the certainty of their resemblance or identity can be established by other courses of reasoning.

The facts of organic life can, in large measure, be brought under the laws of physics, and good progress has been made of late in this direction; but, after all the problems of physiology have been solved, we have yet to encounter the complications of disease, which are infinitely more varied; each sequence of normal action being liable to numerous disturbances and variations, similar effects being produced by diverse causes, and *vice versâ*.

We cannot learn disease without a previous acquaintance with healthy structure and healthy action; and hence each advance in physiology points the way to further researches in pathology, by illustrating the mode of evolution and interdependence of phenomena, previously believed distinct; but, beyond this, the facts of pathology have to be studied for and by themselves, and our mode of investigating disease must be similar to that followed to ascertain the laws of health. We have here to seek for facts of a very varied order. We have, firstly, to deal with alterations of structure, and with the change in the vital actions associated with these; we have further to elucidate the causes of these alterations, the means for their classification and recognition, their nature, and the laws upon which they depend. Modern research has taught us that the basis of all this system of inquiry is to be sought in the changes of structure which the tissues undergo, and lead us strongly to the belief, that all change in function is associated with some alteration of structure—a field of inquiry which has been largely aided by the modern introduction of the microscope and of chemistry to aid us in our researches. Our task is not, however, completed when we have simply recognised a change of structure at the close of life. We have to learn the termination of disease, not only as we find it in death, but (what is far more important) in recovery; and we have yet to associate each of the varied and shifting actions in the series of diseased vital phenomena, corresponding with the change of structure we have been able to recognise, before we can feel that we can truly make an accurate diagnosis for therapeutic purposes of the disease which we have to treat. In such branches of inquiry our reasoning must be in a large measure analogical, from the facts which are open to our observation, to those which are concealed from us, though other direct evidence may at times be afforded to us, in the course of disease. Experiments with animals afford us here a large measure of certainty, so that the process of verification, though laborious and needing much patience, gives us, from the satisfactory data it has already furnished, good hope of further progress in this important, though difficult, field of inquiry.

In the search after the causes of disease, the Medical observer finds some of his greatest difficulties; but when we consider what has been already accomplished, we need not despair of some general laws being yet discovered, which shall bring order out of this seeming chaos and confusion. The only mode of arriving even at comparative certainty here, is close, methodical observation and recording of facts by many observers. The results already attained by the Profession have conferred large blessings on mankind in the diffusion of knowledge respecting the causes and spread of epidemics; in pointing out that dirt and disease go hand in hand; in the improvement of our homes; in the increased comfort and health of our soldiers and sailors; and, when such knowledge has been allowed to bear fruit unhindered by prejudice and ignorance, in prolonged and more useful life among the communities of mankind. Medical men, casting aside the superstition which has so universally prevailed as to the origin and spread of epidemics, and pointing out the more obvious laws which control them, have given to their fellow-men the power of commanding nature by obeying her, and have thus robbed the pestilence of its terrors, and taught them where to look for the lessons which such visitations teach. What nobler duty can, then, fall to the lot of man than thus to lead in the van of civilisation?—to take the sting from its blessings, and to teach how the arts, which bring comfort to many, may cease to be the destruction of the few? There is yet a further step, necessary alike in practice and in theory, in which we have to perform an inductive process of reasoning founded on classifications based on the comparison of diseased action with morbid structure; and this is the operation of *diagnosis* which will be rendered perfect in proportion as our classifications become more exact. When we have observed in a sufficiently large number of cases that a given group of symptoms is invariably associated with a certain morbid change of structure, we are justified in assuming that in any fresh case presenting the same grouping of symptoms the same proximate cause may be expected to exist in the altered tissues of the body, and if our classifications were perfect our diagnosis would in like manner be free from failure. Here, too, careful observation of all associated phenomena is necessary both for present success and in assisting progress; and each fresh fact added, each successful interpretation on sufficient grounds of the phenomena observed, is a certain mark of progress and a stepping-stone for further classifications. Medicine has, however, other indications to fulfil in the attainment of the end sought. It is not enough to know the laws of Physiology and Pathology, to be able to classify and diagnose disease. Such knowledge would be barren indeed, did it not teach us how to cure. This is the point which each advance in Pathology ought to help us to attain; not that we are justified in rushing at once from each new fact or imperfect generalisation deductively to what is termed "a practical application;"—this were, indeed, to bear out the simile used by Bacon, of Atalanta turning in vain aside from her course to pick up the glittering apple that led her

astray. Were Medicine to remain at the stage to which the so-called practical men would reduce it, it would ever be a farrago of crude theory and empirical treatment, hopeless alike to physician and patient. The practical part of our Profession must go hand-in-hand with scientific investigation, and all experience has shown that those who have stood highest in the latter have equally excelled in the former. What is the problem with which we have to deal? We have to discover the whole of the effects produced by our remedies both in health and disease, for the action of a medicine in the former is no measure of its effect in the latter. We have not yet attained to absolute uniformity of sequence in the cases to which remedies are applied, and until this is effected by a more careful selection of remedies appropriate for special diseases or states of the system, we cannot look upon our art as certain. In this investigation we have three modes of inquiry before us,—experiment on man in health and disease, experiments on animals, and direct observation. But of these methods, with some exceptions in favour of the second, the third is the only one generally open to the Practitioners of Medicine. Our present method is a combination of induction and hypothesis, and our only hope of overcoming its difficulties lies in the widest possible classification of the effects, both of the pre-existing causes, and of the arbitrarily introduced co-efficients. Such a task is, indeed, beyond the powers of one man—beyond the duration of one lifetime; yet it must be accomplished before the practice of Medicine can be placed upon a scientific basis—before, as a Profession, we can clear ourselves of the reproach of uncertainty in our remedial efforts. This object must be effected by the united labour of many, bringing to their aid all the improvements which modern research has placed at our disposal, and by the comparison of those results with the labours of those who have preceded us; for thus only, in avoiding the Scylla of too hasty generalisation, shall we escape the Charybdis of a scepticism which has been creeping over, and paralysing the efforts of, the Profession in its search after an unfailing system of therapeutics—a scepticism which, founded on an injurious contempt for the knowledge and experience of preceding times, is reducing many to a vacillating uncertainty of treatment, and giving the public the belief that we are dealing with instruments in whose efficacy we ourselves have lost faith, thus driving them into the hands of noisy and shallow impostors, who, professing to possess panaceas for all diseases, and infallible systems of cure, are believed, in proportion to the loudness of their assertions, by a public incapable of estimating the truth or falsehood of their assertions, or the value of their vaunted cures.

If we wish that our researches should be treated with respect by our successors, let us show the same regard for the labours of those who have preceded us (making due allowance for their less accurate means of diagnosis), but let us beware of imperfections in our own mode of recording cases. The ground of much error and perplexity in our treatment lies in incomplete diagnosis. There must be differences in cases which react differently under the same treatment; but we have yet in many cases to distinguish in what those differences consist. We have, however, many grounds for hoping for further progress: the advances in pathological knowledge, in the mode of preparing pharmaceutical preparations, and in the increased knowledge of groups of physiological and pathological actions, resulting from the use of remedies,—a knowledge which it is most important to extend as widely as possible. It is as yet premature to begin to inquire the exact method by which any drug produces any special effects, nor are we justified in a scepticism as to therapeutic means, because the so-called "Rational School" have not succeeded in applying their imperfect knowledge of the physiological action of drugs deductively to explain their action in disease. We can no more apply this mode of reasoning in therapeutics than we can in pathology. The history of Medicine, as it stands at present, forbids the reliance on specifics as an empirical treatment, based upon unphilosophical grounds; but in a wider sense the course of modern investigation points to the employment of drugs to meet special physiological and pathological states of the system.

Such being our object, and such only being the means within our reach to attain them, you are yet justified in asking whether they suffice for this purpose, and whether we have such evidence of their efficacy as gives us grounds for hope of progress in the future? I think we may conclude, without too flattering a hope, that, considering the difficulty of our task, the method of Bacon is leading us steadily onward to "new truths and new powers." Consider the flood of light which the discovery of the reflex nervous system has thrown in the obscure recessses of the physiology and pathology of those organs! Consider the brilliant results which have followed the laborious classifications of Laennec, Louis, and Walshe on the diseases of the lungs and heart; or, to take examples from our own school—not in any spirit of invidious self-gratulation—but because I believe it is well, as for individuals, so also for Colleges and Universities, to "take stock," at times, of progress made—and I believe that we may feel that here also this spirit of Baconian inquiry has borne its fruits. Consider how this method in the hands of our present distinguished Professor of Medicine has sufficed to clear away much of the doubt and obscurity that environs the subject of continued fever; how the chemical, pathological, and clinical researches of our Professor of Materia Medica have sufficed, not only for the elucidation in a large measure of the nature of some blood diseases, which had previously baffled all inquiry, but by a happy application of experiment, based on inductive and analogical reasoning, have enabled him, not only to point out their nature and causes, but to suggest new remedies which have been found available for their cure. It was by as true a method of inductive reasoning and experiment that Professor Simpson discovered chloroform, as that Jenner discovered vaccination; and if in the past we see instances of success, we may yet see light breaking over the future. When we recognise how much of the processes of absorption, secretion, and nutrition are explained by the laws of Endosmose and Exosmose—how the discovery, by our late Professor of Chemistry, Professor Graham, of the laws of diffusion of gases, has served to elucidate the facts of respiration, may we not hope that his latest generalisation of dialysis may be brought to bear in the simplification of the laws of other phenomena in the human body which are yet unexplained and obscure? When the action of remedies on the secretions and excretions are as fully known as Dr. Parkes's admirable researches promise that they may hereafter become, may we not hope that other modes of investigations may give us a more certain measure of their action in other respects than we possess at present? And have not the researches of Professor Lister, not only by an ingenious and philosophical combination of reasoning, experiment, and observation, not only removed further difficulties in the investigation of the phenomena of inflammation, but pointed to yet further truths of a most interesting character in the phenomena of vital action?

From such instances, we are justified in the trust, that the means which have sufficed for the past will avail for the future, and that each advance in the correlative sciences will be the harbinger of a further reduction to simpler laws of the complex phenomena of life. Already we possess some generalisations which, if not yet fully and perfectly established, want but little of being so; among which we may place the brilliant theory of Virchow, viz., that the ultimate form of organic life is uniform; explaining thus, at once, in general terms (though all the conditions are not fully understood), as well the reproduction of the individual as the growth and nutrition of its parts, and aiding still further to generalise John Hunter's teaching, that disease is only a deranged manifestation of the vital actions of health. It might seem as if we need hardly hesitate to compare this view for wideness and completeness with the atomic theory of the Chemist, though wanting, from the nature of the subject, the definiteness which attends laws of weight and number.

Our science is not less a true one because it is still inductive—because we have to elucidate its laws synthetically by the comparison of a vast number of individual instances, nor because we have to reason in many cases by analogy and hypothesis. We have indeed no great universal axioms from which to deduce the individual facts of disease. New cases are continually occurring, whose relation to other facts has to be determined by long and laborious research; and it is to this research that you are now invited, resting assured that if conducted in the right spirit your toil will not be thrown away. Each fact added to Physiological or Pathological truth is a precious pearl brought up from the ocean of knowledge to weave into the crown of science.

The history of other sciences gives us no reason to despair of the progress of our own. The harvest is long in ripening, but the reaping and the garnering are quick and sure. Let us be content to sow that others may reap; and as we are

entered into the labour of others, let us at least leave some marks to guide our successors on their way. Art is indeed long; and patience, no less than hope, needs to be the attribute of the philosopher. And what, gentlemen, do you seek as a reward for this life of self-denying exertion? The reward of an approving conscience for true work done in the noblest of missions—in that work in which the Redeemer of mankind chose to manifest His power and Love to man, has been reward enough to thousands who have preceded you; and though the power of miracle in healing has not descended to us, yet in this, as in other branches of human labour, the power of success has been granted to wise, earnest endeavours. There are other rewards also within your reach. You will find true gratitude from those to whom you will be often their best earthly friend and comforter; and let me urge on you to strive, from the beginning of your career, if you wish fully to enjoy this reward, to regard suffering humanity with a true sympathy, which, while it takes the form of practical benevolence, does not forget the sorrow and suffering which sickness entails. You have before you, within your own Hospital, a noble example of disinterested devotion in the sisterhood who consecrate their time and labour to the welfare of the suffering poor, an example which it is well that you should have before your eyes from the beginning of your studies; for, as members of the most liberal of the Professions, you will have often to work for the good of others, unseen of men, and without fee or reward.

And, gentlemen, from the toils of practice, from the want of appreciation, of gratitude, or of sympathy among your fellow men, you have ever a retiring place among the glorious arcana of Science, who spreads for you her most glittering treasures, and whose laws you can study in the most perfect mechanism to which they can be applied. To your view are offered the most varied problems of light and sound in their attractive complexity and most exquisite harmony. To you, each force of nature, each atom in the animal or vegetable world, may "have a voice, and give you eloquent teachings;" and in the serene and admiring contemplation of the works of the Creator, you may feel yourselves ennobled whilst you adore. Hence you may find, in the words which the greatest of contemporary philosophers has chosen for the motto of his great work: —"Huic veri videndi cupiditati adjuncta est quædam appetitio, principatus ex quo animi magnitudo existit et humanarum rerum contemio;"—that princely habit of mind from which spring greatness of thought and contempt of worldly advantages and troubles. Yet, gentlemen, earthly rewards are not altogether wanting. Wealth is not to be sought here; but to true industry, sooner or later, a competence is open to all; and many a true worker in the field of science has found that—

> "Not once alone in our rude island story,
> The path of duty was the way to glory."

And if fame should not be your lot—if your short day should end while digging, amid the mist and gloom, steps by which others may ascend to wider views and more perfect knowledge —you have the consolation of knowing that life does not end here, and that the future has a higher tribunal when, in the great muster-roll of the ages, the names of the great and good will be judged by a loftier standard than that of short-sighted human wisdom, and those of the true benefactors of humanity and earnest seekers after truth shall stand written in letters of light. May ours, also, be found there as those of true labourers in this field of knowledge, which God has appointed us to enrich and replenish; and may we find our appropriate reward in the removal for ever of the "burden of the mystery" of this world, and find the fulfilment of the great philosopher's final prayer:—"Quare si in operibus tuis sudabimus facies nos visionis tue et Sabbati tui participes;" —the vision of perfect knowledge, and the Sabbath of labour— which is not in vain.

KING'S COLLEGE HOSPITAL.

Professor Fergusson commenced his discourse by a short sketch of the rise and progress of King's College as a School of Medicine, and took the opportunity of contrasting the present condition of Medical tuition with that which existed thirty years ago, when their School was founded. In those days it was no uncommon thing for a Medical student to be learning his Anatomy in the east of London, and his Practical Surgery in the west, thus losing a vast amount of valuable time, roaming about like the bee in sucking up the sweets of knowledge wherever he could find them. Now, however, the future Practitioner of Medicine was trained under one roof, and had the inestimable advantage of taking his whole professional education from one establishment. The Hospital, which was founded in connection with the College, being inadequate for the purposes intended, had recently given way to a building of a most massive and imposing character, and which had already attracted considerable attention on the part of those interested in the construction of buildings; and although it stood in the midst of a densely-populated and unhealthy district, so much attention had been paid to the size and number of the wards, and such an amount of light had been secured, together with the means of ventilating and heating, that, as regards hygienic measures, patients were placed in as favourable a condition as could possibly be obtained in the wards of a Hospital.

Mr. Fergusson next called attention to the high and holy nature of the mission which the Medical Practitioner was called upon to carry out, reminding those present to bear in mind that "God created man in his own image," that man was the highest of God's creations upon earth, and that their duty was the study of that most perfect work. Hence, he did not hesitate to say that their mission was one of the highest on earth, compared with that of each fellow-labourer. Honouring, as we should do, the loom, the steam-engine, and all that gives glory to human intellect, we have in ourselves a mechanism and a motive power which it is the solace of our minds to consider as emanating solely and directly from the Deity; and the appreciation of such works was the highest proof of man's civilisation.

The Lecturer next adverted to the many changes which had taken place in connection with the Medical Staff since he had the honour of giving the Introductory Lecture in 1848. At that time Mr. Henry Lee had just been nominated Assistant-Surgeon to the Hospital; after a long and laborious service he had retired from amongst them, as also had Mr. Hulke; the vacancies made had been from time to time filled up by Mr. Henry Smith, Mr. Price, Mr. Mason, and Mr. Watson,—gentlemen well known as distinguished pupils of King's College. No comment was necessary on his part to give currency to the claims of these gentlemen on public confidence; but he could not resist the opportunity of paying a tribute of respect and affection to Mr. Price, who had been compelled by ill-health to resign his appointment, for which he was so eminently calculated. They had also suffered a peculiar loss by the resignation of Mr. Bowman, whose labours in private practice had prevented him from continuing with them; and, last of all, he had to refer to the approaching resignation, from the same cause, of Dr. Budd, who for twenty-two years had laboured amongst them in the most successful and brilliant manner. His place was, however, about to be most worthily filled by Dr. George Johnson, whose distinguished career, from a student upwards to the post of Professor, was traced most minutely, amidst great applause.

Mr. Fergusson, after some further remarks, which referred mostly to the importance of the student using with all diligence and attention the means placed at his disposal for learning his Profession, proceeded to give some illustrations of the interest and advancement of Surgical practice, and to claim for Surgery a high place, not only as an art, but as a science. This high place had been denied for it by a Surgeon, who had written a book, some fifteen years since, for the avowed purpose of showing that Surgery was not a science. In his opinion, that gentleman, high as was his reputation, did not truly appreciate Surgery. How different was he from Ambrose Paré, who believed himself inspired when he first applied a ligature to close the open end of a divided artery! What brighter example of science in Surgery could there be than the discovery and application, by John Hunter, of the means of curing aneurism by the ligature of the main artery at a distance from the disease? The process, truly, was but a mere handicraft; but it was brought to bear with such subtlety, that it must be enumerated amongst the highest achievements of science. He also referred to the modern treatment of clubfoot by the division of the offending tendons,—a simple bit of the Surgeon's art, truly; but the art was prompted by sciences which taught the mechanism of the foot and leg, the action of the muscles and tendons, the immediate causes of the deformity, and how Nature, assisted by the Surgeon ever so little, would most effectually make

amends for her original error. Again, with reference to the discovery of vaccination by Jenner, it might be called the produce of induction or deduction, but in his opinion it was a noble portion of science, of which Medicine and Surgery might alike be proud.

In conclusion, the Lecturer exhorted his hearers to the stedfast study of such a noble calling as they had chosen, bidding them bear in mind that, although genius had achieved and might accomplish great things, industry was what was chiefly demanded of them in this time of their pupilage.

GUY'S HOSPITAL.

Mr. Cooper Forster, after a brief allusion to his own position as the inaugurator of a new Session, and to that of his fellow lecturers, similarly occupied at other Hospitals, coupled with a few graceful compliments to the various classes of his auditors, proceeded to address himself more particularly to the students, urging upon those who had already entered upon their studies for some time the necessity for renewed and increased zeal, and the desirability of looking in an earnest and cheerful spirit on a Profession surrounded with difficulties and discouragements, so far as regarded worldly success, yet offering so wide a field for the exercise of man's highest aims and noblest principles. He also urged them to follow in the footsteps of those who had distinguished themselves by their attainments in the School of Guy's Hospital, and made especial allusion to the University of London in connexion with them. He then alluded to those students whose time had been given up to pleasure more than to study, and entreated them not to be under the delusion that a few weeks at "the Mill" towards the close of their Hospital career could prepare them for their Profession. He congratulated himself that very few of that class were present; but would feel satisfied if his earnest injunctions to begin well, and then work steadily and continuously on, were the means of inducing even one to turn from the error of his his ways. He then addressed those about to leave the Hospital, reminding them that its portals would never be closed against them, and assuring them that their success must ever be a source of deep gratification to those who had watched over and instructed them, provided positions of responsibility and usefulness, rather than of mere gain, were attained. He also alluded to the desirability of keeping up good feeling among fellow-students by means of Guyite Clubs (of which, he mentioned, there were already several), and then proceeded to address those present for the first time, as students of Guy's Hospital, asking them with what motives they had chosen the Medical Profession; and telling them that, if with a desire for position or wealth, they would meet with sad disappointment, as a peerage had never yet been the reward of Medical skill, nor had large fortunes been realised by more than a very limited number, and the prizes of Professional life were chiefly gained by the specialist and the charlatan. Still, he assured them, an honest competency was within the reach of every man justly dealing by his Profession, though not so golden a reward as that attainable by the banker, merchant, or scheming man of business; but the Medical Practitioner should look for a higher and nobler reward in the consciousness that he was, to the best of his ability, carrying out the purpose to which he was ordained by his Creator. Should any have taken up the Profession from a sense of filial duty, they were not dissuaded from following it by the Lecturer, but rather urged to increased diligence on that account; and the acquisition of Professional knowledge was held out as being of itself more than a compensation for the labour it involved, and its value beyond calculation. He honestly believed that no better preliminary education could be devised for any man than that acquired within the walls of an Hospital, being, as it was, a knowledge of man,—of the whole world, of science in its profoundest, and in its most practical, bearings; and the Medical man, if truly one—being a philosopher, a man of sentiment, of thought, of action—called by his duties for, and furnished by his education with, all the qualifications, resources, and habits which perfect or adorn human nature. Yet, while dwelling on the advantages, the disadvantages of the Profession must not be overlooked. By the undeviating law of the Creator, every position must have a bright and a dark side to the picture. It was only wonderful that those who had seen anything of the disadvantages alluded to should be bold enough to enter the Profession; and the love of science was assumed to be the motive inducing them to meet the sacrifices they would be called upon to make.

He then mentioned the effect of the distressing scenes so frequently witnessed as hardening the sensibilities; the loathsome sights from which even the experienced recoiled, as oppressing the hearts of the young with tenfold intensity; and the operations of surgery, as harrowing in no common degree, assuring them such feelings were not only natural but right. Alluding to the study of anatomy, he said—The human form divine, even when the spirit had fled—perhaps, then, even most, as suggesting feelings of loss and regret—demanded, and from every well-ordered mind received, our reverence. As the Creator's noblest work, as the vehicle of His brightest revelation, God forbid it should ever be desecrated by irreverent hands! It must always awaken in our hearts the reflection, that soon we, too, must come to the same condition. But feelings of this class, the student, though bound to cherish, was also called upon to repress. His occupation must be in the dissecting-room, there furnishing himself with a precious treasure, the interest of which he must dispense in after life to his fellow-men. The Lecturer then impressed on his hearers the fact, that, as a rule, when students left the Hospital, their study of Anatomy ceased. Other branches of their Profession might receive, and he would not think so ill of any of them as to doubt they would receive, their constant attention; but with regard to Anatomy, he feared the lack of opportunity, and the pressing claims of matters more directly connected with practice, almost excluded it from even the thoughts of those who formerly took the most eager interest in the study. He deplored the fact, as a teacher of Anatomy, and expressed his opinion that fewer errors of diagnosis would occur if the knowledge of its minutiæ were kept constantly fresh in the mind. But much change not being to be looked for, he urged upon them to get their minds well stored in their pupil days with the stubborn facts of Anatomy, and those could be learnt in the dissecting-room alone. No repulsion thence, no attraction elsewhere, must induce them to absent themselves from it; and he assured them that in this, as in all cases of duty resolutely undertaken, the satisfaction in its performance would be an adequate reward for the labour bestowed. No study could be more capable of exciting an ardour, before which difficulties were banished and everything repulsive disappeared, than Anatomy, which also, by its requiring a methodical arrangement of the facts necessary to be remembered, was of inestimable value in forming habits of order in all their studies. Mr. Hilton's recent admirable lectures at the College of Surgeons illustrated these advantages very forcibly.

To return to the disadvantages of the Profession, the Medical man in active practice could never have a mind at rest: if he honestly performed his duty, felt anxious regarding his patients, and loved his Profession, his cares must surround him at all hours. How serious the responsibility even to those whose consciences rebuked them not for time misspent and opportunities wasted! How intolerable should it be to those who had failed to acquire knowledge which might sometimes turn the scale between life and death! Still further disadvantages existed in the ingratitude of some to whom invaluable services had been rendered, good intentions misinterpreted, labours unrewarded; calumnies sometimes, though not often, due to those whom a common cause should have bound together. These things, added to the sad consciousness of inability to save the dying, the sad sight of widows' tears, or orphans' more pitiful unconsciousness, often wrung the heart and tried the patience of the conscientious Practitioner. It behoved them, therefore, to think well on these things before entering that day on the Profession which involved them. But he could not doubt they had already decided on preferring the honourable to the merely pleasant in their choice of a career, and assured them they had chosen wisely, the attractions of such a course far outweighing its pains. He could well understand the man of business gladly exchanging his monotonous life for the mind-invigorating and satisfactory course of the Medical Practitioner; but was at a loss to comprehend the latter ever abandoning his noble profession for any other position. He then presented the brighter side of Professional life, calling their attention to the heartfelt gratitude which would be frequently evinced towards them, to the welcome they would receive in all scenes of suffering and sorrow, to the certainty of friends rallying round them whenever they should be the subjects of attempted

wrong, and to the infinite happiness they might, and indeed must, derive from the sight of returning health in those whom their skill had benefited. Nor must they imagine that the dissecting-room and the operating-theatre blunted the sensibilities to more than a certain extent; no class were so sensitive to another's pain,—so ready to sacrifice self, to resign comforts and enjoyments for the sake of others, as Medical men. Again, though the vices and weaknesses of humanity were open to them more than to any other class, ought not the lessons to be derived from the contemplation of these things to be more than a compensation for the painful scenes often presented to their view. And not only did they derive, but also confer, great benefits, for they were usually the friends, the advisers, the father-confessors of their patients, and possessed of greater influence over them than men of any other profession. If they worthily discharged their duties, none more closely walked in the steps of the great Physician. These, he observed, were privileges to be aspired to, but not to be purchased without effort; and in the few years of an Hospital career an immense amount of knowledge must be concentrated as preparation for a life of immeasurable value and happiness, or the foundation laid for one of constant regret. He urged upon them the necessity of using the brief time accorded to them in this world in preparing themselves, by the zealous employment of the talents entrusted to them, for entering upon another; and insisted upon the constant presence of this stimulus to work in their minds as tending to the greatest happiness. How they should occupy their time in detail he would not attempt to dictate, but would only entreat them not to despise ony one of the studies within their reach, but endeavour so to avail themselves thereof as to be centres of scientific enlightenment wherever they might go;—this was usually expected, at any rate, in rural districts, and they should take care worthily to realise the expectation. They should, however, spend the greater time while at the Hospital over those studies they would have least opportunity for after quitting it. He then made some remarks on the due employment of the senses, and the value of observation in comparison with mere book learning, especially when aided by the valuable inventions of the present day: not that for an instant he would undervalue books, but they must be regarded as supplementary to observation. He would urge the cultivation of sight, hearing and touch, to the utmost, as infinitely valuable. He then alluded to a recent proposal to admit ladies into the ranks of the Profession, and warned them that no prejudices would stand in the way of their admission if the sterner sex failed to qualify themselves for their duties. He then entered on the subject of recreation, advising them to seek rest or change of studies, rather than to expend their energies upon exciting pleasures; and, above all, never to allow anything to prevent them from observing the day so wisely ordained by their Creator for the rest and refreshment of all his creatures. He then regretted that many should fritter away time over so-called light literature, which he found very heavy of digestion, and urged them to prefer the highest style of writing even in their hours of relaxation.

He then proceeded to descant on the advantages of Guy's Hospital, first, as offering so large a sphere of observation, always an incalculable boon to the student; next, as possessing a museum, taken in its entirety, unequalled in the world; finally, as comprising within its walls all the advantages of special Hospitals, against which, and against specialism in any form, he expressed a strong opinion. He then urged them to work with a higher aim than merely to pass their examinations creditably, though he would by no means undervalue those ordeals, inasmuch as they afforded the only guarantee of fitness to practise their Profession; and, in conclusion, urged them to remember, that if there were disadvantages, there were also privileges to be aspired to; but these were accorded only to the painstaking, industrious, and conscientious student; and, above all, that if their share of this world's honours and this world's wealth were but moderate, the reward which all might hope for who earnestly and faithfully fulfilled their mission would be eternal.

ST. THOMAS'S (SURREY GARDENS).

Dr. Bristowe, the Dean, delivered the introductory address. He began by a tribute of respect to the memory of the old Hospital, where he said he had, seventeen years ago, commenced his studies, where he had worked continuously ever since, where he had made many friends, where also Cheselden, and Akenside, and Fordyce, and Cline, and Travers, and Tyrrell, had laboured and taught. He then proceeded to welcome his auditors to the pleasant garden in which St. Thomas's Hospital and school had taken up their temporary abode. He reminded them that Jullien, Thackeray, and Spurgeon had each in their several ways done duty in that noble hall, now formally devoted to the purposes of an Hospital. He asserted that the site was in very many ways well adapted to the purposes to which it was now applied; that the Hospital, though not equal in extent and accommodation to the one which had been left, was still a handsome and commodious building, and superior in many respects to many of the London Hospitals; and that the school buildings which had been so speedily erected would be found ample and convenient. He then went on to speak about the future of the Hospital, which he said was the most momentous question with which the governors had to deal, and one which, putting all selfish considerations on one side, must be of the deepest interest to the Medical officers, and all who looked on the Hospital as their Alma Mater. He adverted to, and regretted, the disagreements which had arisen on this and other questions between the Medical officers and governors, and attributed it to the fact, that they were never brought fairly into contact, and had no opportunity of knowing one another in their corporate capacity. He asserted that the proper remedy was to admit the Medical officers, or delegates from them, into the Hospital councils. (Cheers.) He proceeded then to point out what he considered to be the essential objects of a Hospital, and how, in the erection of a new Hospital, the attainment of these objects could be best effected, premising that he had no intention of treating his theme exhaustively, but chiefly meant to discuss questions of controversial interest. He stated that the primary object of a Hospital was the relief of the suffering and injured poor; and he proceeded to show that the cases for which a Hospital was specially needed, and the cases which chiefly gained admission, were those of acute and curable diseases, and accidents which demanded in their treatment prompt Medical skill, and all that the resources of a Hospital could furnish. The secondary, but not the less important, object was the education of Medical men. It was not the less important, because, while the immediate benefits of such an institution were conferred only on a limited and easily-ascertainable number of individuals, on the good education of the younger members of the Profession depended in a great measure the health and lives of the population at large. He showed, too, that it was in the combination of the two elements that each attained its highest degree of perfection. He next spoke about the choice of locality for a Hospital. Ho considered that a healthy site was imperative —that it was worse than folly to add knowingly to the risks of those whose lives were already trembling in the balance; but he added that a good deal of stuff had been said and written about pure air. In illustration, he showed how almost every one went, for the benefit of his health, at one time or another, into the country or to the sea-side; but he contended that the beneficial effects which ensued were due far less to purity or peculiarities in the air than to perfect rest from toil and anxiety, to good sleep, good diet, and other hygienic conditions. He did not deny that pure air was a valuable thing; neither did he deny that there was such a thing as poisoned air; but he asserted that most sources of poisoned air were in the premises where it produced its ill effects, and not in the surrounding atmosphere, and that most of the sources were remediable, or had been remedied, and did not necessarily exist in London more than elsewhere. He admitted that certain peculiarities of atmosphere, such as warmth, cold, dryness, moisture, &c., were best adapted to certain constitutions, and to certain cases of disease, but he maintained that special atmospheric conditions of this kind could hardly be consulted in the erection of a general Hospital. He said it might be objected still that it was well known that patients in country Hospitals recovered more speedily and favourably than those in London; but, admitting the truth of this for the sake of the argument, he still asked how far the difference of result depended on country air, and how far on the different constitutions of the admitted patients in the two cases, and how far to the greater concentration of serious cases of disease in the metropolitan than in the rural hospitals? The truth he asserted to be that good, pure air was of infinite service to every one in health and in disease, and that impure air was highly prejudicial; but that the purity needed

was not the poetical purity of breezy hills, and that the impurity which was dangerous was not (except in very rare cases) the impurity of the atmosphere around a Hospital, but the impurity of the atmosphere originating within its walls; and that a Hospital was not to be made a healthy Hospital by carrying it to some fancy site, but by attending carefully to its construction and its internal arrrangements. He contended that there was no good object to be gained by spreading the buildings over a large surface; that a Hospital was no more likely to be a healthy Hospital if its wards were studded singly here and there over an extensive area, than if these same wards were piled one above the other up to the clouds. He contended also that, though airing grounds were essential to the patients, there was no necessity at all why they should be large. He did not wish to imply that it was unimportant to obtain as large an area as possible for the erection of a Hospital, but he maintained that excess of space was a luxury, and should not be secured at the risk of sacrificing other requirements, or of inflicting serious injury upon them. In speaking of other matters connected with the welfare of patients, he took the opportunity of pointing out the improvements which had been made of late years in the diet of the patients, and especially in the system of nursing, and he passed a warm eulogium on the matron of the institution. He then proceeded to consider by what means the convenience of applicants and the admission of suitable cases might be secured. He showed, from statistics of the places of abode of the in and out-patients of St. Thomas's Hospital, last year, that the great majority came from within a circle round the Hospital of two miles radius; and he argued, as well from this as on other grounds, that to meet the requirements it was essential that the Hospital should be placed in the centre of a crowded district, near to leading thoroughfares, and, if possible, not far from one or two railway termini. He deprecated the plan that had been suggested, of dividing the Hospital into two parts—one to be a receiving-house in London, the other a Hospital for convalescent and chronic cases in the country. He asserted that the receiving-house would become a second or third-rate London Hospital, and that the country Institution would lose its special character altogether; and he insisted, moreover, that such a division would necessarily destroy the place as a complete School of Medicine. He contended that, if any division was to be carried out, it would be far preferable to make two London Hospitals, to be placed in distinct crowded districts, than to carry into effect the scheme which had been proposed. He wished it to be distinctly understood that what he objected to was the division of the Hospital, and not to any plan which might enlarge its sphere of usefulness. Hence he dwelt on the great necessity at present existing for sanatoria, and asserted that he should be glad to see established, in connection with St. Thomas's and other Hospitals, institutions of this kind—not, however, to be created out of funds at present devoted to other purposes, nor at the expense or injury of that kind of benefit which Hospitals at present dispense. He advocated, in furtherance of the objects of the Hospital, the formation of outlying Dispensaries, to be administered by officers appointed by the Hospital, and to be provided with ambulances or other means of transit for the conveyance of accidents or cases of serious disease to the Hospital, of which the Dispensaries should be the tributaries. He then made some remarks on Special Hospitals, and contended that, if some of them were good and useful (as it was generally admitted that they were), it was impossible to draw any arbitrary practical line between those deserving of our approval and those meriting our censure. It appeared to him that the proper way now of correcting any abuse in connection with them, was not to attack specially this or that particular institution, but to establish in the General Hospitals special departments in all those branches which Special Hospitals had now made their own. He considered that this plan would in no wise injure the better class of Special Hospitals, but that it would tend to the suppression of trumpery and quackish institutions, and would permit the mistaken charity which now supported them to revert to the older subscription Hospitals, which so greatly needed and deserved it. He said that this plan was already in many Hospitals carried out to some extent. The Lecturer then proceeded to advert to two or three occurrences of the past twelve months. He drew attention to the establishment of the Grainger Prize, which had resulted in the wish to give that gentleman a testimonial. He expressed his pleasure that Mr. Grainger's name would thus be perpetuated in the school of which he had so long been an ornament. He then adverted to the fact, that Mr. Rainey had had a pension bestowed on him by Government, and he took the opportunity of extolling, in high terms, his moral and intellectual character, and of expressing his high regard for him as his old teacher and his friend. He finally alluded in a few feeling phrases to the death of the late Obstetric Physician, Dr. Waller; and concluded, amidst loud cheering, with a few words of advice to the students, and thanks to the audience for their attention.

CHARING-CROSS HOSPITAL MEDICAL COLLEGE.

Dr. Headland reminded his audience that ten years ago he had delivered the Introductory Address in the same theatre. The subject was a trite one, too often dwelt upon to leave much room for variety of treatment. He had to commend the pursuit of Medicine to those who were just entering on their course of study. The pursuit of any one of the three learned Professions demanded a certain amount of patient industry, as well as a degree of ability somewhat beyond the average. There were points of resemblance between the three pursuits of Physic, Law, and Divinity. There were matters in which their co-operation would be of advantage to the community. In diseases of the mind connected with disorders of the body, the priest might ask the aid of the Physician; in the reverse case the Physician might receive assistance from the priest. The lawyer might commend to the charge of his Medical friend those who seem to have erred through a defect of organisation; while the incorrigible drunkard and profligate might not improperly be transferred from the care of the doctor to the salutary restraint which alone would suffice to correct them.

Plato, in his Republic, drew a curious parallel between the functions of the Physician and the judge. "They are to bestow their services," he says, "on those only of the citizens whose bodily and mental constitutions are good and sound; leaving those who are otherwise, as to the state of their body, to die, and actually putting to death those who are naturally corrupt and incurable in soul." This method of procedure would save both Professions a vast amount of trouble; but it cannot conscientiously be recommended for general adoption. It is they who are sick who need the Physician; but as few are strictly speaking whole, the greater part of mankind fall naturally under the guardianship of the Practitioner of Medicine.

The lecturer then reviewed at some length the various functions of the Physician. He described him, in turn, as the discoverer, the teacher, the healer, and the reformer. The Physician must always be at the same time a man of science. Some part of his art was capable of far greater perfection than he had yet attained to. There was yet much to be done in the investigation of the Chemistry of disease. When we understood that better, we should be better able to apply our remedies. Most of the applications of our drugs had been discovered by happy accidents. A better knowledge of the mode of operation would enable us to make a wider use of these weapons of our armoury. Dr. Headland regretted that he could not hope much from the plan of concerted observation proposed at a late meeting of the Medical Association, and deprecated the encumbrance of our national Pharmacopœia with a host of American herbs of doubtful credentials. As for Veratum, said to resemble Digitalis, Dr. Headland would discard from practice all remedies whatsoever that restrain the action of the heart. "The greatest improvements," said the lecturer, "to which I can point in modern Medicine, are the substitution of a supporting regimen for lowering treatment in inflammations and fevers, the discontinuance of venesection, and the disuse of that pernicious custom of over-physicking, with which our ancestors, *secundum artem*, dismissed the sick man from the scene of his earthly trials." The duties of the Physician as teacher of the multitude, who often did not know what was good for them—as sanitary and social reformer, were next dwelt upon. The rewards which the Physician might expect for a life of trial and self-devotion were not the highest that the world had to bestow. In the esteem of mankind at large, a man who made two men live where but one lived before, was not worthy of any special praise. The improver of the breed of oxen was had in more

honour than the improver of the breed of men. The man who had removed the duty from some trivial article of import—he who had been sent as ambassador to conclude a treaty of amity and commerce with the King of the Cannibal Islands,—such men received peerages and statues. A man who should rescue our youth from the scourge of consumption, or discover a method of preventing the small-pox, might seem to us scarcely less worthy. Yet the pitiful memorial which in the public square hard by had been raised to Jenner, had been banished, even with ignominy, from that honourable neighbourhood of men, esteemed great because they killed their fellow-creatures, whereas he only saved them. But it did not matter much. A thousand years hence it would be of small importance to us in what estimation we happened to have been held in the world. Dr. Headland alluded to the death of Dr. Shearman, and to the changes that had taken place recently in the staff of the College and Hospital. He concluded by hoping that none of the students would have cause hereafter to regret their selection of a Medical School. "There are societies," he said, "which have reached their zenith, and are now year by year declining in numbers and influence. There are Institutions whose friends are struggling with these symptoms of early decrepitude, which they are powerless to control. Ours is not one of these. This College has youth and health on its side; it is yet strong and growing. Situated in a commanding position in the centre of London, circumstances seem to point it out as likely, ere long, to assume a foremost place among the great educational establishments of this kind in the metropolis."

The Lecturer was very warmly received, and listened to with great attention by an audience of students and visitors that could scarcely find room in the theatre.

WESTMINSTER HOSPITAL.

The Lecturer, Dr. Anstie, after welcoming his audience to the studies of another session, remarked that, in looking round the theatre on an occasion like the present, and observing the expression of many faces before him, he could feel no difficulty in selecting a topic for discourse. He was forcibly reminded, by the recollection of his own experience, that the predominant feeling in the mind of young students, at such a time as this, is a strange sense of novelty, and an uneasy consciousness that as yet the business of Medical education seems too much of an unreality to be thought of as the serious occupation of their lives. This does not arise from any disinclination to apply themselves to work, but from ignorance, not so much of the details as of the true spirit of Medical study. The first duty of the lecturer would therefore be to describe, as briefly as possible, the general plan of work which the student should adopt. In his remarks on this subject, he laid great stress on the necessity, from the very first moment of the student's career, of giving prominence to the practical part of his education. Anatomy, Physiology, and Chemistry, the subjects of his special study during his first winter session, were admirably adapted, when studied practically, by means of dissection, the use of the microscope, and the practice of chemical analysis, to give the beginner a sense of personal interest in his work; because there is in all such pursuits something of the feeling of discovery and invention. But if early attention be requisite to the practical working of sciences, which, like those already mentioned, lie at the foundation of Medicine, still more necessary is it that the actual treatment of disease should be studied, from the very first, in the presence of the living facts of clinical Medicine. The student was urged to take from the first an active part in the practical work of the Hospital, by filling successively the different clinical appointments, in which he would be able to learn, under competent guidance, the difficult art of Medical observation. The practical Physician, said the Lecturer, is like a man who fights in the gloom of twilight, with foes who seem innumerable, from the impossibility of defining their shapes or their exact position: only after a long and trying combat, after many sighs for clear sunlight, does he learn that the gloom may be pierced by eyes which have grown familiar with it, and that the foes are not so numerous nor so terrible as fancy painted them at first. The student cannot too soon begin to scan this dusky twilight of clinical Medicine, not only for the sake of the invaluable experience which he will thus gain, but because his interest in the work of his Profession will be increased tenfold, so soon as he makes the delightful discovery that he, too, possesses the power of discriminating shadows from substance, among the Protean shapes which disease assumes. Along with clinical work must always go the sedulous use of the microscope, and of chemical tests; and, above all, the habit of preserving notes, in which careful numerical tabulation of morbid phenomena, and the results of treatment, are included.

The Lecturer next dwelt on the necessity of acquiring, in addition to technical knowledge, the elements of a really good general education. No calling demands so high a standard of general acquirements in those who follow it as does the profession of Medicine, except, indeed, that of the Church. The power of commanding the sympathy of a number of patients in different ranks of life is absolutely necessary to considerable Professional success. But it is impossible to do this simply by force of the most amiable disposition, or the most genuine kindheartedness. There must be the power of intellectual communion with many different minds, and this can only be gained by a varied intellectual training. It would be absurd to say that the most diligent study of mere technical matters could atone for a deficiency in an acquaintance with such important subjects, as mental philosophy, the principal events in the history of our race, and the chief developments of its theology, literature, and fine arts. The neglect of such accomplishments as these would account very much for the ill-success of individual Medical men, and the undeservedly low social *status* of the whole Profession. Still more necessary was a good working knowledge of the Physical sciences, both to Professional efficiency and intellectual *status* with the public. And in these days of free intercommunication of ideas, it would be wrong to omit from the list of accomplishments which the Medical man should cultivate, a fair working knowledge of the French and German languages.

The Lecturer then proceeded to make some observations on the importance of the constant cultivation of the moral qualities, of courage, foresight, perseverance, self-denial, and, above all, truthfulness, the acquirement of which was perhaps the most difficult task of all.

The concluding portion of the Address was occupied with a slight sketch of the present state of pathology and the tendencies of modern English therapeutics. Great and important changes had taken place of late years in both these branches of Medical science, and the late Dr. Todd was eulogised for the conspicuous share which he took in these movements. It was unfair to the memory of that great man to associate his name with any special system of medication; his real merits are to be found in his constant and successful efforts to procure an acknowledgment of the fact, that it is Nature herself who performs by far the most important part of the work of cure, while the Physician is only her humble servant, who should be always reverently watching her movements, and, if necessary, aiding the efforts which she herself makes. Allusion was made to the further development which these ideas have received at the hand of Dr. Chambers, who has propounded the theory, that all disease consists in a deficiency of vital power, and that, therefore, all true remedies must be such as directly or indirectly aid the work of nutrition. Whatever might be the ultimate verdict on this theory, it was certain that an immense number of facts, both in physiology and pathology, which have latterly become familiar to us, appear to give it a general support. The discovery by Virchow of the similarity between an immense number of morbid products and the lower kinds of healthy tissue, fortified as it is by the recent observation of Rindfleisch, that the development of tubercular matter in the brain of the child presents many points of resemblance with that of the so-called connective tissue; the important observations of Kussmaul and Tenner on the production of epileptiform convulsions by the abstraction of arterial blood, and the development which this fact has received at the hands of Dr. Radcliffe, who has demonstrated the superiority of the nutritive treatment of convulsive disease over every other plan; these, and a host of other facts, seem to be leading us in the same direction. It is most important, then, for the student to understand that his attitude must be one of vigilant and earnest injuiry into the phenomena of Nature, and searching, though respectful, investigation of all therapeutical traditions which have come down to us. There need be nothing of the spirit of perverse and insolent scepticism in this. Such a spirit is far more likely to be found among the blind adherents of doctrines which they have never had the courage to test; and there

need be no feeling of discouragement, even though our increased knowledge robs us of some of the credit which we had fondly attributed to our own efforts; for the future of Medicine is at this moment more bright than it has ever shown before. To quote the last words of Dr. Todd,—"There never was a period when a candid and ample reconsideration of general Pathology promised more fruitful results than the present. Our widely-extended acquaintance with Anatomy and Physiology, the greatly-enlarged security of the basis on which our knowledge of function rests, the much-increased accumulation of facts of clinical history, all afford most important data for new inductions." That exhortation, gentlemen, continued the lecturer, calls upon the whole rising race of Medical men; it is addressed to every one of you,—for every one can help in the great work of accumulating and tabulating clinical facts. We must all of us be discoverers; we must all of us submit to the test of most stringent personal examination the doctrines of pathology and treatment which we propose to act on in our own practice; and we must all remember that *our* conclusions will in turn be criticised,—that a later generation, standing on the basis of a wider knowledge, will perhaps condemn us, too; and that we had need remember with humility the words of our great poet:—

"Our little systems have their day,
They have their day—and cease to be;
They are but broken lights of Thee,
And Thou, O Lord, art more than they."

ORIGINAL COMMUNICATIONS.

CASE OF QUADRUPLE EXTERNAL ANEURISM.

By GEORGE LOWE, M.R.C.S.

John P., a bricklayer, married, aged 27, applied for advice about some swellings in his legs on April 15, 1862. On examination, he was found to have four external aneurisms, a left inguino-femoral, a left femoral, and a right and left popliteal.

He is of middle height, of slender build, of rather dark complexion, and the youngest of a large and healthy family. He stated that he never had had rheumatism, syphilis, nor any illness since he had scarlatina when a child; but that for the last two years he had felt weaker and had become thinner, and that his food had not digested properly.

He was employed at one of the large breweries to repair the brickwork connected with the furnaces and boilers. It is work that, night or day, must be done, and even when the heat is excessive. He was obliged, from want of room, to work on his knees, and sitting on his heels, and he said that from the heat and fatiguing position he drank large quantities of ale. He had felt a stiffness in his left knee for more than two years; but had only noticed the swelling in his thigh a few weeks before. He did not know when the lumps in the popliteal spaces came, and was not before aware of that in the groin. His pulse was upwards of 120, and the action of the heart and arteries throbbing and violent. His tongue was white and loaded to the tip; he was thirsty and without appetite.

Though the swellings were not sore, they caused great pain in the left thigh and knee, and prevented sleep. The man looked worn, thin, and anxious.

The left popliteal aneurism was of the size of a hen's egg, and pulsated strongly. A tumour of rounded form, of the size of a bagatelle ball, firm but not pulsating, was felt behind the aneurism.

The femoral aneurism was as large as a turkey's egg, and was situated in the lower end of the middle third of the thigh. It pulsated vehemently. By pressure it could be emptied of its contents. Its walls appeared to be thin, as it gave, when pressed, the sensation conveyed by pressure on a hollow india-rubber ball. The inguineal aneurism was situate in the very beginning of the femoral artery, and extended downwards from the femoral ring for an inch and a-half. It was of tubular form and larger than a filbert. It pulsated strongly. By pressure over the external iliac, its pulsations ceased, and all trace of the tumour disappeared.

The right popliteal aneurism was of the size of a large walnut, being a little longer than it was broad.

There was no aneurism of the upper extremities, or of other external artery, and a careful examination failed to detect any sign of internal aneurism: facts favourable to the conclusion, that the aneurismal disease was owing more to external than to constitutional causes. It was hoped that, when the patient was in better health, the three left aneurisms might be cured by tying the external iliac, as in the case of femoral and popliteal aneurism of the same limb successfully treated by Mr. Newbiggin, and as in the cases of similar duplex aneurism mentioned by Mr. Erichsen.

He was therefore kept in bed, and every pains taken to improve his general health. At the end of a week he was no better, and complained much of the pain in his left leg.

During the night of the 22nd the pain in the left thigh became suddenly most severe. On the following day the character of the femoral aneurism was completely changed. Instead of presenting a circumscribed, well-defined outline, the limits of the tumour were lost in a diffused swelling of the thigh, and a thrill or tremor only was to be felt instead of the previously forcible pulsation. In a few days more the whole limb became œdematous, and, especially in the lower part of the thigh, tense. The superficial veins were greatly distended. The heat of the limb was increased. Pressure on the artery above, or on the swelling itself, did not reduce its size. There was no distending impulse. The pain was excessive. It was evident that the aneurism had given way, and that there was great effusion of blood under the deep fascia, and that it pressed injuriously upon the surrounding tissues and impeded the circulation.

Under these circumstances, ligature of the external iliac offered little prospect of success, even if the patient's health had afforded a reasonable hope of his escaping the danger of secondary hæmorrhage. Amputation of the limb mid-way between the femoral and inguinal aneurisms was therefore decided upon; and this operation, having the sanction of Mr. Birch, of Barton-under-Needwood, the most eminent and experienced Surgeon in the neighbourhood, was performed on April 30. A large quantity of dark blood escaped from the limb on dividing the deep tissues. The femoral artery was found to be healthy, and was secured with four other vessels.

On the fourth day no union of the wound had taken place, and the flaps were flabby and wanting in action. A grain of opium was given every night, quinine three times a-day, and as much nourishment with brandy as the stomach would bear. Under this treatment the health gradually improved, and the stump slowly healed. Three ligatures came away on the nineteenth day, and that on the femoral on the twenty-fourth day.

As it is stated that there is considerable constitutional disturbance when, in the treatment of aneurism by compression, consolidation takes place, it was thought better to defer the treatment of the right popliteal aneurism until the ligatures had been cast off. On their coming away an abscess formed in the stump, and caused further delay. In the meanwhile the patient's health had greatly improved. He had now a comparatively clean tongue and good appetite, and the excited, throbbing action of the heart and arteries had in great degree subsided. It having been ascertained that the pressure of a weight of five pounds upon the right femoral artery, as it passed over the upper edge of the os pubis, completely arrested the circulation through it, a cube of lead of that weight was procured.

On the 8th of June the patient was laid on a well-stuffed hair mattress. A compress was placed over the tumour in the ham, and the leg bandaged from the toes upwards. The upper part of the thigh and the groin were shaved and well dusted with powder. An ordinary tourniquet pad was then placed over the artery, and upon the pad, the cube of lead, suspended by a string, and so adjusted that its whole weight should rest upon the pad. This plan was improved upon by the patient. He attached the weight to one end of a common wooden screw hat-stretcher, and fastened the suspending string to the other end of it.

By this contrivance the degree of compression could be adjusted with ease and exactness. It was in fact a fine adjustment; and the patient's attention was usefully employed in regulating it.

The principle of suspension allowed, too, of no little change in the direction in which compression was made. By inclining the string forward or backward, or to either side, making the weight as it were rock upon the pad, the pressure could

be thrown on a fresh point, and yet without arresting for a moment the compression of the vessel. The compression was employed only during the day.

On the 11th, the tumour was observed to be harder, and the pulsation less strong at its lower end. On the following day, the 12th, the fourth day of treatment, the pulsation had ceased altogether, and the tumour had beeome perfectly solid. The pulsation was described as stopping suddenly. The foot and leg soon afterwards became cold. This coldness of the extremity lasted for several weeks. No eonstitutional disturbance ensued on the consolidation of the tumour. A small artery running along the middle of the tumour could be distinctly felt.

Three of the four aneurisms were now disposed of, and the question of the best means of treating the fourth was considered.

From the difficulty of applying compression above Poupart's ligament, and from the tubular form of the aneurism, it had been determined to tie the external iliac; but as the treatment by eompression of the left popliteal had succeeded in so short a time, it was resolved to try the same method in the case of the inguinal aneurism.

The tourniquet pad was placed above Poupart's ligament, over the external iliac, aud compression made by means of suspended weights plaeed upon it. The weight required in this situation was, however, so greal as to cause much pain, and the plan was abandoned. Immediate pressure upon the aneurism was then tried. A hollow india-rubber ball was placed upon the tumour, and the weight suspended so as to rest upon it.

A weight of five pounds was sufficient to stop the circulation through the right femoral, but a weight of twelve pounds applied over this aneurism failed even to reduce the strength of its pulsations, and yet caused so mueh pain that it could not be borne. There was fear, too, that, as the eompression could not be applicd equally to the whole surface of the tumour, its coats might yield in the direction not supported in the same degree.

Immediate compression was therefore given up, and ligature of the external iliac again decided upon. The ingenuity of the patient was again successfully employed. He made a very effective pad by wrapping with flannel list one end of his hat-stretcher, and effectually stopped the circulation through the external iliac by pressing it firmly above Poupart's ligament in a direction downwards and forwards, the stump being at the same time partially flexed upon the body. One end of a belt made of strong coarse web, having a buckle in the middle, was fastened to one side of the iron bedstead, and, carried over the top of the hat-stretcher and obliquely across the bed, was attached to the other side of it. Two short metal pins were fixed into the upper end of the hat-stretcher, which, readily piercing the belt, maintained it in its position. A string from the middle of the belt to the foot of the bed completed the apparatus.

The use of these simple means was begun on June 22. In a week or ten days the tumour had acquired a degree of hardness, and which remained when the artery above was effectually compressed.

The tumour gradually became more and more firm, and its pulsations less and less strong, until the end of six weeks from the beginning of the treatment, when it became perfectly solid and without pulsation.

The compression was discontinued at night and when the patient had his meals.

By unbuckling the belt he was at liberty in a moment. Thero was no constitutional disturbance during the progress of the case. The part exposed to pressure was kept shaved and constantly dusted with powder, and there was not the slightest chafing or soreness of the skin; at first the compression could be borne only for a few hours a day, but by degrees so much tolerance of pressure was acquired, that at the last it was kept up for nine hours a day.

The general health of the man is now re-established. The action of the heart is quiet and natural. He has gained much in flesh, and is free from any sign or symptom of aneurism internal or external.

On examining the limb (which was very œdematous) after amputation, the femoral aneurism was found to be of a quadrangular form, measuring two inches and a-half from above downwards, and from side to side. On endeavouring to dissect off a portion of the adductor magnus muscle, adherent to the upper and outer surface of the tumour, the interior of the aneurism was laid open. It contained a few thin layers of fibrine. It communicated by an opening under the tendon of the adductor magnus with a large cavity containing fluid blood, in the upper part of the popliteal space. The bone forming the anterior boundary of this cavity was denuded of periosteum and very rough and sharp. Blood was extravasated into the cellular tissue, between the deeper muscles of the inside of the thigh. The femoral aneurism was connected with the popliteal by a portion of healthy artery, not more than half an inch in length. The popliteal aneurism was pear-shaped, and $3\frac{3}{10}$in. in length, $2\frac{2}{10}$in. in its widest part, and tapered down to $\frac{7}{10}$ of an inch, when it became continuous with the healthy artery.

It was lined by numerous laminæ of fibrine. It was eonvex towards the knee, and concave on its posterior surface; a form apparently determined by the pressure of the round tumour behind the aneurism, and which was found to be a bursal one.

The coats of the arteries were unusally thin, but no calcareous or atheromatous deposit, nor fatty degeneration, could bc detected.

The most remarkable feature in this case is the number of aneurisms in the same individual at one time. Pellctan met with a case of sixty-three aneurisms, varying in size from a filbert to that of the half of a hen's egg. Sir Astley Cooper relates a case of a bricklayer's labourer who had seven aneurisms, two popliteal, two femoral, an inguinal, and two others. Mr. Tyrrell mentions the case of a man who had two femoral, and a popliteal, aneurisms of one leg, and three femoral and a popliteal of the other, making seven in all. Nevertheless, the occurrence of more than two external aneurisms in the same individual, at one time, is most unusual.

The cases just enumerated were, moreover, all fatal ones. Pellctan's case was, it is presumed, met with in the dissecting-room. Sir Astley Cooper's patient died from the bursting of an aneurism of the bifurcation; and Mr. Tyrrell tied the left femoral unsuccessfully; and it was found, after death, that his patient, too, had an aneurism above the bifurcation. The cause of the disease in this particular case would appear to have been the cramped position in which the patient had to work, at a time when his health and digestion were impaired by the excessive heat, and by the quantities of ale he drank, giving rise to a violent and throbbing action of the heart and arteries, and to a weakened state of the blood-vessels, from defective nutrition. The case strengthens the view expressed by Pelletan, that the sudden and forcible straightening of the limbs, after long-continued flexion, tends to produce aneurism;—an opinion which has been pronounced untenable, because, in the experiment suggested by Richeraud, and repeated by Mr. Hodson, of forcibly extending the leg of a dead subject, it was found the coats of the artery did not give way, unless a force was used sufficiently great to snap through the ligaments of the ham.

Surely this experiment is an inconclusive one. How different must be the effect of extension on the living vessel filled with blood, aud its coats weakened by disease or imperfect nutrition, and on the vessels in the dead subject, the coats of which may have been perfectly sound, and which contained no blood!

Another bricklayer, employed in the same brewery, stated that when at work under the coppers he always wore large slippers, as from the heat and constrained position his feet and legs swelled so much he could not wear his boots.

Whatever may have been the cause of so many aneurisms in this case, the results are most favourable testimony to the value of treatmeut by compression, and the more interesting from showing the small amount of compression necessary in some cases to effect consolidation of the tumour. Compression was made at one point only, and when it caused uneasiness the pressure was relaxed, and presently increased again. By these precautions, the patient suffered no pain, lost no sleep, and there was no injury to the skin where the pressure was made.

As is well known, there have been many instances of popliteal aneurism in which a cure has been accomplished by compression even more quickly than in the present case; and, except in the means used to compress the vessel, there was no novelty in its treatment.

The case of inguinal aneurism is of more interest, from the extreme simplicity of the means employed to effect a cure, and because it is believed to be the only one which has been successfully treated by compression of the external iliac.

The comparatively tedious cure was owing, probably, to the greater difficulty of compressing the artery, and to the tubular form of the aneurism. As might have been expected, tying the femoral artery after the amputation had no influence in checking the growth of the aneurism, seeing that the circulation through the profunda was unchecked.

There was no appreciable loss of temperature in the stump when the circulation through the femoral ceased, owing, no doubt, to the free inosculations between the branches of the profunda and those of the internal iliac.

Burton-on-Trent.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

SYPHILITIC DISEASE OF INTERNAL ORGANS.

In our reports of cases of Syphilitic affection of the Nervous System we gave several cases in which the brain and spinal cord were affected by syphilis. We now give the details, unfortunately imperfect, of three other cases in which this disease affected other internal organs. We shall shortly give an abstract of a lecture, by Dr. Wilks, on syphilitic deposits. The subject is comparatively little worked out, and is one of very great interest. These cases show how difficult it is, now and then, to draw even a rough line betwixt Medicine and Surgery. This was well shown lately in a case at Guy's. A patient had lupus, and whilst under Surgical care the skin disease only was treated. When transferred to the Medical ward the urine was examined and found to be albuminous; the liver and spleen enlarged. Syphilis was suspected, and special treatment for this was adopted.

In the first case the organs affected by lardaceous or albuminous deposit were the liver, spleen, and testes. The kidneys were healthy.

In the next case, probably one of congenital syphilis, the liver, spleen, and kidneys were affected.

In the third case there was some deposit in the lungs and liver. It was doubtful whether the deposit in the lungs was simple or syphilitic.

GUY'S HOSPITAL.

Case 1.—*Syphilitic Deposits in the Liver, Spleen, and Testes.*

(Under the care of Mr. COOPER FORSTER.)

John S., aged 41, was admitted under the care of Mr. Forster, for strangulated hernia, March 29. He died on the 31st.

The patient had had syphilis, and was in a most wretched condition,—wasted and sallow. His tibiæ were very much enlarged, and he had not been able to work for two or three years. He was, however, admitted for strangulated hernia on the right side. Seeing how ill he was, there scarcely seemed a hope of recovery, although necessity compelled the operation. This was done. The patient died March 31.

Autopsy.—The following is Dr. Wilks's account of the autopsy:—There were no sores on the body. The tibiæ were very much hypertrophied. The throat was examined and was found to have been ulcerated. There was pneumonia of lower lobe of the right lung. It was a question whether it could have occurred altogether since the operation. The intestines were rather distended, and where the coils met there was a slight red line, thus showing, no doubt, the very first stage of inflammation. The piece of intestine which had been strangulated was found lying quite away from the neck of the sac, and had completely recovered itself, although the line of constriction was still distinctly visible. It was about two inches in length. The liver was large, and of a pale yellow colour, very firm and granular. It was cirrhosed, as seen by the nodulation. There also appeared much fibre tissue in it, and apparently some amorphous, albuminous, or lardaceous matter. The spleen was very large, and weighed 2¾ pounds. It was very firm, and contained large masses of albuminous or lardaceous matter of a tough character and yellowish colour. There was a large mass of this, and several diffused nodules likewise. The kidneys were healthy. The testes were large and very hard; one was nearly destroyed by fibrous exudation in the structure as well as in the form of nodules. The tunica vaginalis was very much thickened and adherent. The other contained several round, very hard nodules, and was also streaked with fibrous tissue, penetrating the gland.

Case 2.—*Disease of the Bones of the Nose—Ulceration of the Throat—Lardaceous Disease of the Internal Organs.*

(Under the care of Dr. WILKS.)

F. P., aged 21, was admitted into Guy's Hospital October 31, 1861, for sore throat and discharge from the nose. There was no opportunity of getting any very early history of his case. His mother was a most disreputable woman, but there was not obtained any actual evidence of syphilis. He said that he was first ill two years and a-half ago, and then suffered from sore throat, when he was under the care of Dr. Addison for many weeks. He recovered, and kept well for a little time. Since, however, his throat again became affected, and a piece of bone came away from each nostril. His nose was flattened, and the septum appeared destroyed. There was a hole in the palate, the uvula was gone, and the palate seemed fastened to the posterior wall of the pharynx. There was, however, no active disease. There was no evidence of his having had primary syphilis. Although twenty-one years of age, he looked quite like a boy, certainly not older than fourteen. He was thin, pale, and his skin was dirty-looking. His teeth were irregularly placed, but not malformed, and there was no trace of corneitis nor of iritis. The tibiæ were large, irregular on the surface, and much bent. His legs were slightly œdematous, and the urine contained albumen. The liver and spleen were enlarged. Dr. Wilks stated, shortly after his admission, that he believed the organs were lardaceous. Two days before the patient's death (on December 26) acute peritonitis came on.

Autopsy.—The body wretchedly emaciated, and like that of a child. The head was not examined. The lungs and heart were healthy. Acute and recent peritonitis, as well as remains of a former attack. Recent lymph occupying all parts of the abdomen, and purulent lymph in recesses between the organs. Besides this, many parts were united by old exudations. This was especially the case in the upper part of the abdomen. Liver closely adherent to the diaphragm, and to the stomach below. The spleen was also adherent to the surrounding parts. The liver was much enlarged, and very heavy and lardaceous throughout. The spleen was about four times its usual size, firm. The malpighian corpuscles were occupied by lardaceous matter. Many of these were red from effusion of blood. The kidneys were much enlarged, pale, and firm, as in the white Bright's kidney. It was not more carefully examined, but probably some lardaceous matter was present.

Syphilitic Caries—Pneumonia—Deposits in the Lungs, Liver, and Spleen.

(Under the care of Dr. REES.)

William A., aged 48, admitted March 30, and died June 15, 1859. He had suffered from rheumatism for two years. He was admitted with pain in the limbs and swelling of the legs. He recovered so as to be able to walk, but always appeared cachectic and feeble.

Autopsy, by Dr. Wilks.—The body was spare and cachectic-looking. There was no eruption on the chest, and no scar of syphilis on the genitals. An abscess existed around the elbow-joint, and the joint itself was recently inflamed. The cranium was slightly carious in front, and a little purulent matter existed between it and the scalp. The os pubis also was thickened on both sides. The brain and membranes were healthy. There were slight adhesions of the lungs to the pericardium. There was recent pneumonia of both lungs. The left was in an early stage of serous infiltration. The right was further advanced, and arrived at red hepatisation.

Besides this recent disease, there were a number of small white inflammatory deposits throughout the lungs; one or two of these were softening into small abscesses. The pericardium was universally adherent to the heart by cellular tissue. The heart was otherwise quite healthy. There was much biliary

congestion. In one or two places the bile had collected in the tubes, and formed a firm substance. In one place a tube had distended into a small cavity. There were also a few very small white deposits in various parts of the organ. The spleen contained a firm, white, fibrinous deposit.

Dr. Wilks adds:—This case appeared to be one of caries syphilitic), and abscess and death by pneumonia. It was not clear what was the nature of the deposits in the lungs; but being associated with small deposits in the liver and spleen, it was probably syphilitic.

WESTMINSTER HOSPITAL.

CHRONIC DYSENTERY—TREATMENT BY IPECACUANHA, COPPER, AND ENEMATA OF CREOSOTE—RECOVERY.

Under the care of Dr. BASHAM.)

W. R., aged 29, shoemaker, for the last six years has been suffering from pains in the abdomen, looseness of the bowels, the stools being black and offensive, evidently containing blood, and being mixed with much slimy mucus. Bowels generally open ten or twelve times within the twenty-four hours, attended with pain.

After having been an inmate of one of our metropolitan Hospitals for some weeks, the urgent symptoms abated, and he returned to his work, but within a very short time the symptoms came back as bad as ever, quite incapacitating him for his duty. He attended as an out-patient for some few weeks, but not gaining much relief he was admitted under the care of Dr. Basham, on May 29, 1862.

At this time the bowels were so loose that the motions ran from him as he sat in the chair; they were very thin, watery, mixed with blood and matter, and were very offensive.

He presented a very anæmic aspect, the features being pinched and haggard. Extremities cold and somewhat livid, pulse very feeble and frequent, abdomen somewhat tympanitic. A grain of ipecacuanha powder and half a grain of opium were ordered to be taken night and morning in the form of a pill. He was ordered beef-tea, rice pudding, arrowroot and milk.

At the end of a week the bowels were still loose, acting generally seven times daily. Stools liquid, tinged with blood, and of a brownish colour. The distension of the abdomen was less. He was not troubled so much with wind.

On June 10, his appetite had improved, and he was allowed a chop. Bowels open eight times daily.

16th.—Pulse 84. Stools copious, loose, brown, with frothy blood on the surface. No evidence of any internal hæmorrhoid. He was now troubled much with wind, which was relieved by a little aromatic mixture with chloric ether. Ordered a pill, containing half a grain of the ammonio-sulphate of copper and half a grain of opium, three times a-day.

28th.—Since the last report, bowels generally open five or six times daily, but less blood with them than before.

July 10th.—Had an epileptic fit, to which he has been subject for years.

11th.—To omit the pills. To take a drachm of castor oil, ten drops of tincture of opium, and fifteen drops of ipecacuanha wine every night.

12th.—Bowels not open all through the night.

15th.—Bowels generally act four times daily. More solid, and contain less blood and slime. Goes out daily for a walk.

18th.—Was in great pain during the night. Bowels very relaxed; rice water stools, with white pultaceous matter at the bottom of the vessel. Ordered an enema, containing five drops of creosote, and a drachm of glycerine in eight ounces of barley water, every night and morning.

20th.—Bowels open three times in the twenty-four hours. Motions more solid. He is not disturbed during the night.

26th.—No blood or mucous with the stools, which are formed, and of nearly natural consistence.

August 12th.—Discharged convalescent. Bowels open twice daily. Motions natural. No pain or inconvenience. Appetite good. Condition of patient very much improved.

HOSPITAL NOTES.

BELLADONNA IN EPILEPSY, ETC.

At the Hospital for the Epileptic and Paralysed, belladonna and its alkaloid, atropia, are still in favour as remedies for epilepsy. Under these remedies most patients with epilepsy, especially if they suffer much between the paroxysms, are benefited.

In treating epilepsy we must remember that, although in many cases we may not be able to cure, we can very often diminish the number of fits; and even if we cannot do that, the patient's general condition is often much improved. Many patients attend the Hospital who have had fits for very many years, and though they have no hope of being cured, they, nevertheless, experience great benefit, and are rendered capable of resuming a comparatively active life. Although this is not a cure, it is the next best thing to it.

The prescription generally used is—Extract of belladonna a quarter of a grain, quinine one grain, in a pill three times a-day. Of atropine, one $\frac{1}{120}$th of a grain is given three times a-day. Of both, the dose is gradually increased. Although given in increased doses, they are rarely observed to produce, in epilepsy, much physiological effect. Sometimes, however, the patients complain of dryness in the throat, and of defective sight. We think it will be noticed that patients with dark eyes suffer more from it, and that these patients are often hypermetropic.

When the sight is affected by belladonna or atropine, it is because the ciliary muscle is paralysed partially or totally, and hence that the power of accommodation is impaired, or altogether lost. It is not likely that it is due to dilatation of the pupil, as in congenital irideremia the accommodation is good, and in a case recorded by Graefe, in which the whole of the iris was removed by operation, it remained perfect. It was lost, however, when atropine was put into the eye.

Patients, of course, complain a good deal when their sight is impaired, however little, by any course of treatment, but they can be assured that the defect is only temporary. In some cases of cataract belladonna has been used for years without injury to the eyes, and without losing its powers.

In no case have we noticed dulness of hearing to be produced by this drug. Very likely there may be some slight impairment of hearing which the patient does not notice. Very often there is tinnitus aurium, and some little defect of hearing attending it, but this is common in epilepsy whether belladonna be given or not. We have not noticed that patients have complained of increase of deafness under its use. If a solution of atropine were dropped into the ear it might then paralyse the small muscles of the ear, and produce defective accommodation for sound, if such a phrase is allowable.

Another method in which Dr. Brown-Séquard uses atropine in epilepsy is to inject a solution of it and morphia into the part from which an aura starts. This was done in several cases with excellent results. A solution containing one sixtieth of a grain of atropine and a quarter of a grain of morphia is injected with Wood's syringe. In the several cases in which it was used it did not produce any immediate effect in the patients, and no giddiness, etc. The operation is not painful.

It is supposed that belladonna acts on the blood-vessels producing contraction. Ergot, also, Dr. Brown-Séquard believes, has this property; and hence their use in local inflammatory conditions of the brain or spinal cord. Ergot, he believes, has a greater action on the vessels of the spinal cord, and belladonna on those of the brain. In paraplegia from myelitis, a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna is given three times a day. The action of belladonna in arresting the flow of milk, and in causing dryness of the throat, may be explained also on the hypothesis of its diminishing the supply of blood to those parts.

OPIUM, CODEIA, ETC., IN SLEEPLESSNESS.

The profuse administration of opium in delirium tremens is not so common as it was. It appears to be recognised that, as Dr. C. J. B. Williams points out in his "Principles of Medicine," that there is a condition in which a patient is "too weak to sleep," and that, therefore, the best plan to induce sleep is not to attempt to tyrannise over the nervout system by opium, but to support the patient by tonics, and stimulants, and nutrients; then, when the patient is strong enough to bear it, opium may be given. We write these remarks, not in reference to any recent case, but to some which occurred in the Hospitals some time ago.

Dr. Brown-Séquard sometimes gives codeia in cases in which it is important to produce sleep. If we wished blindly to compel sleep, opium would be our remedy; but many can,

*

no doubt, call to mind cases of death in delirium tremens after the profuse administration of opium. "Apoplexy with contracted pupil" is, we believe, the name given to such deaths. Again, in cases where we feel justified in giving opium to induce sleep, the manifest disadvantages of doing this at the risk of producing dyspepsia, constipation, and symptoms of "congestion of the brain," make the choice of some other narcotic desirable. In one case in which codeia, one of the alkaloids of opium, was given, it produced sleep, and was not followed by any of the disagreeable symptoms of confusion in the head, which the patient complained of after taking morphia. It is stated by Dr. Neligan to be half the strength of opium only; but in this case it produced, in similar doses, precisely the effect of an equal quantity of morphia. The dose given was two-thirds of a grain, in pill. Codeia is contained in much smaller quantity in opium than morphia; so that in prescribing opium equivalent to a grain of morphia, we give only one-sixteenth to one-thirtieth of a grain of codeia.

At the Middlesex Hospital Dr. Goodfellow employs the plan of subcutaneous injection of opium, in order to get the patient to sleep in delirium tremens. He thinks that it acts more quickly, and produces less constitutional disturbance than the plan of administering it by the mouth. Of course he employs other means, both dietetic and Medical.

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Medical Times and Gazette.

SATURDAY, OCTOBER 11.

'PRENTICE BIOGRAPHIES AND JUNIOR MEDICAL SCHOOLS.

In the controversies which have been going on of late on the apprenticeship question, we have steadily maintained the following points—viz., the necessity of an improved, general, and professional education for the Medical student; and the necessity for a systematic and continuous education, in contradistinction to a state of things in which the student is left to "pick up" knowledge. We have always advocated a thoroughly practical education; that is, one in which *things* are studied, and not *books* merely. We have insisted on the necessity of initiation into the mechanism of private practice, by means of a working apprenticeship; but we insist, in order to apprentice a youth with advantage, he must, either before his apprenticeship, or along with it, have the opportunity of systematically learning those elements of Professional knowledge, anatomy, chemistry, and natural philosophy, without which all that he sees is a confusion and an enigma.

We now propose to call witnesses, and to give the histories of Medical pupils who have begun their study in various manners.

The first is a pupil of the —— Hospital. The account he gives of himself, in reply to our questions, is as follows, *verbatim*:—

"I am 22 years of age, have passed the first examination at the College of Surgeons, and hope soon to pass the second, and then the Hall. I am the son of an officer in the Army, and was educated at the Kensington Grammar School. At 17 I was apprenticed to a general Practitioner at ——; I was with him three years; a premium was paid of £50; I lived with my family, and went to my master's from nine to one, and from three to six daily. My occupations were dispensing, attending the sick, and reading. There was a large practice amongst the poor, and a great deal of tooth-drawing; this was the first thing I learned to do. I was never taught, but used to see how it was done, and then did it myself. My master was an expert operator, and used the forceps. I broke off a great many at first, but did better afterwards. Did not know then how many teeth there ought to be, but know now. Never bled, and very seldom saw it done. Saw very few accidents or fractures, chiefly diseases. Attended a great many cases of children's diseases. Remember particularly bad colds, coughs, and diarrhœa. Gave them the same medicines which my master used to give for the same complaints. Saw cases of hydrocephalus and convulsions. Saw bronchitis and pleurisy. Did not apply the stethoscope, nor know anything about it. Saw cases of rheumatism. Dispensed medicines every morning and afternoon. Soon learned how to do it. Did not understand chemistry at all. Read a great deal; in fact, more reading than anything else. Read Phillips's Translation of the Pharmacopœia. Learned what the different drugs and tinctures were made of, yet did not study it chemically, nor understand it all. Made no experiments, and had no apparatus. Read 'Wilson's Anatomy;' learned a good deal about the bones; had some bones, but not all. Read 'Practice of Medicine and Surgery.' Went with my master to some midwifery cases. Did not know what was meant by the perineum. Never read a line of Latin after leaving school, except Celsus, to go up to the Hall. Read no French. Would find it difficult to read a French work now. Came up to town, and have been three years at the —— Hospital. All I know of natural philosophy I have learned from lectures, but could not understand all I heard. Master seldom or never taught anything; he had not time."

This is the history of one apprentice, taken at random from the mouth of an entire stranger, who happens to come to us on Professional business whilst we are writing for the *Medical Times and Gazette*. Is is the history of a common and most lamentable class of cases. Education cut short—a youth left to his own devices—reading anatomy and practice of physic, which he ought to have learned by observation; not reading Latin, French, mathematics, nor any branch of polite literature, save novels; but acquiring habits of recognising and treating disease by rote. Would it not have been cheaper for this boy to have spent another year at school, or in the upper department of King's College, University College, or some similar institution; then to have spent two years in strict Medical study; and then to have done the duties of apprentice to a general Practitioner? Would he not have learned more? Would he not have been more useful to his master, and a fitter Medical attendant for the poor? Breaking off a few teeth, more or less, may seem a trifle to some people; but it is no trifle if taken as a specimen of the operator's skill in other cases.

But it will be said that this is a bad specimen of its class. So we will give another, in which the Practitioner, having more leisure, took more pains with the education of his apprentice:—

"I was apprenticed, with my brother, to a young Surgeon at ——, but we resided with our parents. I served two years, then went to London; my brother was allowed to pass the first year of his apprenticeship at school; he then served one year before coming up to town. During my time, I dispensed a *little;* learned the bones; got some elementary knowledge of chemistry, but only by reading; picked up something of practice of Medicine and Surgery from books, especially 'Gregory's Practice' and 'Sir Astley Cooper's Lectures'; learned to bleed and open abscesses; got up Celsus and Gregory for the Hall; my master helped me a *little*. The time was not *wasted*, but it might have been spent more profitably."

The next is an apprenticeship passed under better auspices. This is the history:—

"I left school in my seventeenth year, and entered an apprenticeship to Mr. ——, Surgeon to the Hospital in the

county town of ——. He was a good, bold operator; had an extensive midwifery practice amongst all classes, and attended clubs and parishes; so that there was work of all kinds, from seeing a leg cut off in the morning, to being taught in the afternoon what were the proper gradations of draughts, mixtures, etc., for people of various capacities for pay, and how the pauper genus might be physicked at the cheapest rate, with pills and powders, requiring no bottles. From the first day, I used to visit at the Hospital, and dress there: ulcerated legs, the *opprobrium chirurgicum*, were plenty as blackberries; and though there were certain lines of treatment laid down, yet we often had the power of exercising our own ingenuity. I became so expert with the roller, that I fancy I could heighten the beauty of any leg by applying one, so smoothly and nicely do the turns follow. We assisted in the dressing of stumps and compound fractures; saw simple fractures put up; saw lots of cases of diseased joints and bones; some of the eye; saw a great deal of midwifery; attended a hundred cases, but went with no preparation except reading Blundell's Lectures. My first lessons were from the workhouse midwife, who told me it was my place to 'help the pains'; said help consisted in stretching the orifice with two fingers. Saw many cases of puerperal fever; could not make them out at all; most of them died. Learned a good deal of anatomy; had bones, &c.; dissected an arm and leg, which we bribed the porter to let us steal from the dead-house of the Hospital, and got up the brain. We used to boat, bathe, and take long botanical excursions. We used to read a great deal; kept up French and Latin, learned Italian, and knew Horace and the 'Vicar of Wakefield' almost by heart. Went to London at twenty, with a great mass of most valuable practical knowledge; my regret is, that all I did was voluntary, and done in my own way. I gave up drawing; neglected mathematics; cannot understand Dr. Farr's paper on 'Duration of Life,' in the *Medical Times;* got too much into 'reading' habits; got into confusion about the fasciæ in hernia, etc., which has stuck to me ever since; believe I should have done better if I had had more practical chemistry. When I say *we*, I mean to include two other pupils, good, gentlemanly, studious fellows, who guided me well. Had it not been for them, my leisure hours would have been worse spent."

This was apprenticeship in its best possible form, apart from the systematic study, which is better still.

Here is a fourth case:—

"I was apprenticed to Mr. ——, of —— Hospital, London. Began with dissecting, became a good anatomist, and attended the Surgical wards. Could have made any dissection, or performed any operation, before I could vaccinate a baby, or prescribe for a cold in the head."

Of course, if a man wishes to enter private practice, he must learn it practically, as he would learn anything else.

Of the various methods of beginning Medical study, so as to secure the greatest quantity of various advantages, we may mention the following:—

If the student begin by apprenticeship with a General Practitioner, in private, club, or parish practice, it is indispensable that he have a tutor, to give regular daily instruction in one or more of the following subjects—viz., languages, drawing, some branch of mathematics or natural philosophy, besides osteology studied from specimens, and chemistry by experiments. One year would suffice.

If he be apprenticed to the Surgeon of some provincial Hospital—and there are at least 150 Hospitals, Infirmaries, and Dispensaries in England and Wales, which offer great fields for practical Medical study, but which are not *recognised*, nor attached to "schools"—then two years might be spent with benefit, provided that there were means of teaching the subjects mentioned above, and that there be a laboratory, with means of teaching chemistry by experiment, and the bones, muscles, and arteries by dissection. Such an establishment would rank as a *Junior Medical School*. Such schools might be established at Bedford, Reading, Windsor, Aylesbury, Carlisle, Birkenhead, Chester, Stockport, Bodmin, Truro, and any towns similarly circumstanced, They would not be competent to finish a Medical education, but would supply the elements, both theoretical and practical,

If the student begin, as we advise, by a year's course of natural philosophy and chemistry, and another of chemistry, anatomy, and physiology, at a regular Medical School, he may live with a Practitioner, and see and help in the routine of business, whilst he is carrying on his studies; or, go for one year to a country General Practitioner in good practice, with or without Hospital, after he has been initiated into his Medical studies, and before he completes them.

GUY'S HOSPITAL AND ITS SCHOOL.

(*From a Correspondent.*)

(Continued from page 361.)

It can scarcely be expected that a School which has had a separate existence of its own for little more than 30 years, and a Hospital which is of the comparatively slight age of 135 years, can show to the world so long a list of celebrities as some of their more ancient neighbours; nevertheless, the Medical and Surgical staff of Guy's has not been without repute, nor its lecturers unknown.

When the Hospital was first opened, in 1725, Mr. Cooper and Mr. Croft were appointed Surgeons, whilst Drs. Jurin and Oldfield were the Physicians. Whether this Mr. Cooper was related to the three succeeding Coopers—the uncle of Sir Astley, Sir Astley himself, and his nephew Bransby—we do not know; but it is remarkable that four Surgeons of the same name should have served the Institution within a century. It would, no doubt, be a task of pleasure to investigate the career of these great men of the past, but, at present, we must deal with those better known to fame.

Thus, Dr. Jurin, the first Physician to Guy's, was the leading Doctor of his day, and earned a European reputation. Probably no man of greater learning has yet succeeded to a Physicianship at Guy's; for his writings on philosophical and mathematical subjects were so well appreciated that he was appointed Secretary to the Royal Society at the time when Sir Isaac Newton was President. He was a powerful advocate in favour of inoculation of small-pox.

Afterwards came Dr. Wollaston, whom, we believe, was an elder brother of the celebrated chemist of the same name. He prematurely died of fever, but had already been appointed Physician to the Queen's household.

Following him was Dr. Saunders, a man whose name is still held in respect at Guy's. He was learned in various branches of science, and was Physician to the Prince Regent.

Subsequently, in 1802, Dr. Babington was appointed, than whom no man was more esteemed by the Profession or the public. The inscription on his monument at St. Paul's Cathedral, read as it is by hundreds every year, cannot but produce an excellent feeling towards the Profession at large. The estimate in which his son, who succeeded him, is also held, can scarcely be alluded to. Suffice it to say, that he possesses, in a large degree, all his father's good qualities.

Dr. Curry was Physician and Lecturer on Medicine at the time that Babington gave the chemical course; and, as regards the former, we have heard Dr. Addison say that he used to read the same lectures year by year,—a practice which cannot be too much deprecated. During the Professor's absence he asked Addison to lecture for him, which was, in fact, to read Curry's own lecture from his manuscript. Addison did not deny that he would occasionally interlard it with opinions of his own, but this was *sub rosa*.

Dr. Marcet was also about this time Physician to the Hospital and Lecturer on Chemistry. His valuable work on "Calculous Diseases" is well known.

Afterwards came Drs. Cholmeley, Laird, and Back, until we arrive at our own times, when Bright, Addison, and Babington were for a long time the Physicians to the Hospital To Bright and Addison is due much of the Medical fame to which Guy's school has attained. Bright has earned for himself a world-wide celebrity, but it is to Addison especially

that "Guy's men" would attribute the most valuable teaching. This was due in great measure to Addison's personal bearing, and to his remarkable devotion to his Profession. A man of his character, it is known, will, by the mere force of example, produce an influence for good on the most indifferent students. It was impossible for them not to catch some of his enthusiasm when they saw him marching forward through the Hospital with his eager class around him. The strictness with which he performed his Hospital duties was remarkable; no excuse of private practice made him arrive too late or depart too early, but he was always at his post; and thus it may be imagined, that the influence of his example was great. Not only this, but so devoted was he to his pursuit that he would never omit seeing any case of his colleagues which was of interest, and seldom omitted his daily visit to the post-mortem room. The Guy's men of the present day will be found using technical expressions which had their birth in Addison's brain, and many of his peculiar terms are now unconsciously diffused through the school. Addison was dogmatic and opinionated without doubt, faults to be expected in an enthusiastic man, but which had their good influence when he stood before his admiring class, and laid down the law in a manner which was pointed, clear, and forcible. Addison's name will be handed down to posterity, probably in connection with his remarkable discovery, associated with disease of the supra-renal capsules, but the solid work which he performed was accomplished long before this. His intention of making Guy's a good *Medical* school, and his little jealousies of the Surgeons, occasionally crept out. On one occasion, when leaving a ward, with a very respectable class attending him, he met one of the Surgeons followed by a host of students; Addison drew back and exclaimed, "Let the comet pass and all his tail."

Amongst Addison's colleagues are those who still occupy the Professional chairs, and, therefore, as the selection of any for commendation or otherwise might be invidious, we pass them by, and merely state that some of their juniors have gone before them. Dr. Hughes, though not much known to fame, was a hard-working Physician, and held in great respect by the students, his memory resting chiefly on his untiring zeal in teaching students the use of the stethoscope, as many old Guy's men can bear witness. The mention of this instrument reminds us, that one of the Physicians above named, who was in practice at the time of Laennec's great discovery, came to the Hospital one day with a stethoscope, declaring it was a capital handle for the flowers which he was in the habit of carrying. This he would place on the nearest bed to the door, and take it again when leaving the ward. Such is the opposition to new discoveries!

Dr. Golding Bird at the time of his death was only 39, and yet had a very large practice and a considerable scientific reputation. He had already reached a point which most do not attain for several years longer, but he was a man whose course of life was premature. He was a capital example of a man living too "fast."

To come now to the Surgeons of the Hospital: the first appointed were Cooper and Croft. Succeeding them, in the eighth year of the Hospital foundation, was Samuel Sharpe, a Surgeon of very great eminence in his day. He has left behind him an interesting work on Surgery, which contains much common sense and much that is good, deficient, of course, in very important knowledge of the present day. It is remarkable to find what progress our Profession has made in a century; for example—in aneurism, Hunter's operation of ligature was not known, the treatment recommended by Sharpe being, bandaging the tumour, or tying the two ends of the vessel. In the case of brachial aneurism he recommends laying open the sac, removing the coagula, finding the upper and lower ends of the vessel, and then tying them. He afterwards says:—

"To avoid wounding or tying the nerve in making the ligature, the artery may be cleared away from it first, and held up with a hook, but should the nerve be tied with the artery, *as, indeed, it is, for the most part, by the generality of operators*, no great inconvenience would ensue. In doing this operation it will be proper to have the amputating instruments ready, lest it should be impracticable to tie the artery," etc., etc.

His book published in 1751 contains numerous plates of instruments used, with modifications, at the present day; the only remarkable print being that of an instrument very much resembling a rat-trap, and which was to be worn by men for incontinence of urine.

After this celebrated Surgeon came Belcher, a man who also made a large fortune, but seeing the vanity of all earthly riches, desired at last to be buried in Guy's Hospital, with iron nails in his coffin, and this to be filled with saw-dust.

Then come the names of Lucas and Forster, to whose operating skill the Museum at Guy's can still bear witness; and after them Mr. Cooper, the uncle of Sir Astley, and by whom the latter was introduced to Guy's. It is of him that Jeaffreson tells the following story in proof of his tenderness of heart. He was about to amputate a man's leg in the Hospital theatre, when the poor fellow, terrified at the display of instruments and apparatus, suddenly jumped off the table and hobbled away. The students burst out laughing, and the Surgeon, much pleased at being excused from the performance of a painful duty, exclaimed, "By God, I'm glad he's gone!"

Sir Astley Cooper is too well known to require any notice here; suffice it to say, that it was probably to his personal bearing, his enthusiasm and energy, that a large part of his celebrity as a teacher was due; or, in the words of Mr. Pettigrew:—

"I can never forget the enthusiasm with which he entered upon the performance of any duty calculated to abridge human suffering. This enthusiasm, by the generosity of his character, his familiar manner, and the excellence of his temper, he imparted to all around him; the pupils imbibed the same spirit; and the extent of the obligations of the present and of after ages to Sir Astley Cooper, in thus forming able and spirited Surgeons, can never be accurately estimated. He was the idol of the Borough School; the pupils followed him in troops; and like to Linnæus, who has been described as proceeding upon his botanical excursions accompanied by hundreds of students, so may Sir Astley be depicted traversing the wards of the Hospital with an equal number of pupils, listening with almost breathless anxiety to catch the observations which fell from his lips upon the several cases presented to his view. But on the days of operation this feeling was wound up to the highest pitch: the sight was altogether deeply interesting—the large theatre of Guy's crowded to the ceiling—the profound silence obtained upon his entry—that person so manly and so truly imposing—and the awful feeling connected with the occasion—can never be forgotten by any of his pupils."

Sir Astley Cooper was buried in a vault beneath the chapel at Guy's Hospital; and here the present Treasurer, Mr. Turner (to whose fostering care the School at Guy's is eminently indebted) has caused a tablet to be erected, on which is the following inscription. This we give to our readers, as it has never yet been published:—

"In memory of Sir Astley Paston Cooper, Bart., F.R.S., for twenty-five years Surgeon of this Hospital, died February 12, 1841, ætat 73. By his own particular desire his remains have been deposited in the vault below, within the precincts of the institution in which he received his Professional education, and which—having contributed to the development, enjoyed the benefits, and shared the lustre of those remarkable talents, which won for their possessor the undisputed title of the first Surgeon of the age—to mark the resting-place of so distinguished a man, and to evince the sense of his services to the Hospital, the Governors have caused this tablet to be erected on the occasion of the repair and decoration of the chapel."

Sir Astley's successors, Mr. Aston Key and Mr Bransby Cooper, were both cut off when they were reaching the height of Professional eminence. Key was the ideal of a Surgeon;

his whole life was devoted to his Profession, and it may be said that no man ever had a better knowledge of his art. Key's dogmatism was excessive, and many are the stories current of the way in which he always maintained his supremacy. Not long before Liston's death and his own, the two Surgeons had a case of diseased knee-joint in consultation, and in which Key was to operate. To have seen him look at Liston with twinkling eyes whilst he performed the circular amputation, and declared its superiority to the flap, was a sight worth beholding.

Bransby Cooper was a good Surgeon, and this fact, together with his name and social qualities, gained him a name and considerable reputation, and would no doubt have placed him in a very eminent position, had not Death's dart struck him too soon.

Many are the pleasant tales told of Bransby's prowess and boxing propensities, and not one with more zest by the "old Guy's men" than that which relates how he took upon himself to be champion of the School against St. Bartholomew's. It is related that the fame of Sir Astley brought numbers of "Bartlemy men" to his lectures, whilst at the same time the name of Abernethy took many Boro' men to Smithfield. The consequence was, that strangers often filled the benches which should have been occupied by more rightful owners; numerous were the fights which took place, not only before the lecture, but sometimes during its delivery, until, on one occasion, poor Abernethy, annoyed by the squabbling, exclaimed, "Those d—d Boro' men again." This was too much for the irascible Southerners, and there and then it was resolved that the two schools should fight it out, afterwards mitigated into the plan of drawing lots for an individual representative on each side. As bad luck would have it, the lot fell on a very diminutive Guy's man, whilst his antagonist, the Bartlemy man, was a comparative giant. Pluck, however, made some amends for size, but not altogether, for the Guy's man was nearly overpowered, when Bransby Cooper, being at the time demonstrator, and coming to witness the proceedings, and seeing one of his pupils so roughly mauled, threw off his coat, and, in the twinkling of an eye, soon settled accounts with the stranger. There was then a shaking of hands, followed by a supper, and ever since the two Hospitals have dwelt in peace.

His colleague, Morgan, must not be forgotten, for, though not a brilliant man, yet a good Surgeon and first-rate operator, as many old pupils, who have benefited by his instructions, can testify. Besides the Hospital Physicians and Surgeons, many eminent men have held Professional chairs. Thus Dr. Haighton earned in his time a just celebrity as Lecturer on Physiology. Also, Dr. Blundell (still alive) gave this course, together with Midwifery. As subsequent Obstetric Lecturers there have been Dr. Ashwell and Dr. Lever, both men of great practical attainments.

Perhaps the best known man of his time was William Allen, the Quaker, who lectured some time at Guy's on Chemistry; for, as he was Professor, likewise, at the Royal Institution, and had an extensive connection among the leading men of the day, several persons of renown came to the theatre at Guy's to witness his experiments. In his diary we read of him, in 1796, forming a philosophical society at Plough-court, and amongst its members were Joseph Fox, Astley Cooper, Babington, etc. In February, 1799, we find him working with Pepys on chemical matters; also attending Haighton's Physiology; and, "after this, went to Cooper's—wound of arteries—extremely overdone." On January 9, 1802, "Joseph Fox invited me to meet Dr. Jenner, Astley Cooper, etc., at his house, and go from thence to the Physical Society at Guy's, a paper on cow-pox being then before the Society." Allen subsequently gave the lectures on Chemistry at Guy's. Afterwards, although much devoted to scientific pursuits, he joined himself with Wilberforce, Clarkson, Zachary Macaulay, etc., for philanthropic objects, and especially for the abolition of the slave trade. At a very early age his instincts revolted against slave labour, and he, in consequence, determined never to touch the fruits of it, in the shape of sugar, until the slave trade should be abolished; and to this resolution he stedfastly adhered for upwards of forty-three years, until the Abolition Bill passed, when he again resumed the use of sugar.

After Allen came Dr. Bostock, Lecturer on Chemistry; and then Mr. Aikin, the well-known Secretary to the Society of Arts, and author of the Chemical Dictionary: a Professor better acquainted with his subject could not be found.

Amongst others who worked for Guy's, Dr. Hodgkin must not be overlooked, and of whom, though still living, it may be said that his name can never be forgotten whilst the museum of Guy's endures.

His successor, Mr. Wilkinson King, was cut off too early for the necessities of science; he was a very original thinker, as what he wrote testified, and would, had he been spared, have no doubt become a shining light.

Joseph Fox, alluded to above, was the celebrated dentist of the City, and to whom Mr. Bell is supposed to have succeeded. His preparations of the teeth are now in the museum of Guy's.

The Physical Society at that time added much to the celebrity of Guy's, and is generally stated to be the oldest Medical Society in the country, with the exception of the "London Medical Society;" but respecting this we have some difficulty in obtaining a correct account. Guy's Physical Society was founded in 1771, whereas the Medical Society of London is said to have been formed in 1772 or 1773, which, if correct, would give the priority of date to the Borough institution. Many important discussions took place within its walls; and it adds not a little to the interest of the present pupils' Society for its members to know that Davy, Jenner, and other celebrities, have discussed their discoveries in the self-same theatre. The importance of the Society may be gathered from the fact, that at the time of the Cato-street Conspiracy, when the country was much excited, a Bow-street detective officer was sent to watch the proceedings. This became known; and one independent member openly alluded to the fact of spies being present, showed a pistol, and declared he would shoot any man who interfered with his liberty.

THE WEEK.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The subjects which have been discussed at the Cambridge meeting of the British Association are, many of them, of no ordinary interest to the Profession. We elsewhere publish the paper read by Professor Owen, in the Zoological Section, on the brain of the gorilla and man, together with the discussion which followed. Those of our readers who have studied Professor Rolleston's lecture on the brain of man and the higher apes, which appeared in our last volume, will now be placed in possession of the principal facts and arguments on both sides of the question, and will draw their own conclusions. For ourselves, we can only say, that an examination of the bisected skull of the male gorilla, in the Osteological department of the British Museum, has convinced us of the truth of the assertion, that in this ape, at least, the posterior lobes of the cerebrum do not project beyond the cerebellum. The question, after all, is purely one of anatomical fact. It cannot affect, in any way, man's position or relations with regard to the lower forms of life. His intellect, with its almost unlimited capability of improvement, is neither to be measured by compasses nor weighed in the balance.

In the Geological Section, Mr. W. Boyd Dawkins contributed a paper on the Wookey-hole hyæna den, in which he described the weapons of early man which he found in the cave, and their relative position in reference to organic remains:—

"In three areas in the cave he found ashes of bone, and

especially of the *Rhinoceros tichorhinus*, associated with flint and chert implements of the same type as those of Amiens and Abbeville, and to those of the south-west of England. They were, however, of ruder workmanship, and possibly are of an earlier date. They were found underlying lines of peroxide of manganese, and of comminuted bone, and overlying, in one of the three areas, remains of the hyæna, which mark the old floors of the cave. From this he inferred, that 'man, in one of the earlier, if not the earliest, stages of his being, dwelt in this cave, as some of the most degraded of our race do at present; that he manufactured his implements and his weapons out of flint brought from the chalk downs of Wilts, the less fragile chert of the green sand of the Black-down hills, and arrow-heads out of the more easily fashioned bone. Fire-using, indeed, and acquainted with the use of the bow, he was far worse armed with his puny weapons of flint and bone than his contemporaries with their sharp claws and strong teeth. The very fact that he held his ground against them, shows that cunning and craft more than compensated for the deficiency of his armament. Secondly, that as he was preceded in his occupation, so was he succeeded by the hyæna.'"

Amongst the papers read in the physiological section, was one by Dr. Edward Smith, "On the Effect of Tobacco Smoking on the Pulse." He has found that in some persons a decided increase in the frequency of the pulse is produced, whilst in others no such increase occurs.

"Dr. Smith pointed out that the only period in which the inquiry could be made is at about 10 p.m., when there has been no food taken after 6 o'clock, since at that period the rate of pulsation naturally falls, and an increase could be due to the tobacco only. He had experimented upon Mr. Dale and other Medical men at Scarborough, and had found that the effect upon Mr. Dale was as follows:—During the first six minutes the effect was very small, only an increase of four beats per minute, but after that period there was a steady and rapid increase until the twenty-first minute, when the tobacco was consumed. The average increase from the sixth to the thirteenth minute was 19 pulsations, and thence to the end of the experiment was 31½ pulsations per minute; but the total increase in one minute was 37½ pulsations. Whether a further increase would have been attained was not ascertained; but from the order of the increase it was probable that such would have occurred within narrow limits. It was found, that after the smoking had ceased the rate of pulsation fell in a few minutes, but it yet remained 10 or 15 pulsations higher than was natural for two hours. There was less effect produced upon the pulse when the tobacco was smoked in a hookah. In this class of cases tobacco acts as a stimulant, and may supply to the literary man the state of system at night which would be induced by a moderate quantity of alcoholic stimulants; but when the body is of full habit it must lead to disturbed sleep, and may lead to apoplexy."

We can confirm Dr. Smith in the assertion, that the increase of pulsations he has observed does not take place in all persons. It is certain, moreover, that few who have dallied with Charles Lamb's "lily-white enchantress" have likened the spell to the more gross effects of alcohol. Tobacco has always had the reputation of being a calmant rather than a stimulant, and of, at the same time, increasing the power of mental concentration and abstraction. Several papers of great interest were contributed by Dr. John Davy. One, on the effect of arsenious acid taken in very minute proportions, referred to the fact that—

"A small mountain stream in Cumberland, Whitbeck by name, contains a minute quantity of arsenic, and has from time immemorial been used by the inhabitants of an adjoining village without any marked effect, either bad or good, on man and other animals, with the exception of ducks, to which birds the feeding in it has proved fatal. The author attributed the innocuity of the stream to two circumstances: first, the extremely minute quantity of arsenic present; and, secondly, the little tendency that arsenic has to accumulate in the organs of animals—the duck probably having less eliminating power than others. He mentioned instances in which arsenic, in equally small quantity, derived from rivers in the Lake District, had proved fatal to the char. He presumed that arsenic existed in many other streams, the water of which was used with impunity, the arsenic being derived from arsenical pyrites, a very common mineral, by the action of air and water, and as, in the instance of Whitbeck, comparatively harmless, and this owing to two circumstances—the very slight solubility of the oxide in cold water, and the fact of the harmlessness of the oxide in infinitesimal quantities.

"Dr. Davy also read 'Some Observations on the Vitality of Fishes, as tested by increase of temperature.' The experiments described by the author were made on eleven different species of fish of our lakes and rivers, of which the several kinds of salmonidæ were of the number. The results were that a temperature of water between 80 deg. and 100 deg. was fatal to each kind. The salmonidæ were those which were most readily affected by elevation of temperature, the other species bearing it according to their kind somewhat better. The results generally were pointed out as of some interest in relation to the *habitats* of different kinds of fish, and also as tending to prove that the accounts given by travellers of fishes existing in hot springs are exaggerated, and not founded on accurate observation.

"Another paper, by the same author, was 'On the Coagulation of the Blood in Relation to its Cause.' These observations were chiefly made to test the hypothesis brought forward by Dr. Richardson—that the coagulation of the blood mainly depends on the escape of ammonia. The many results described by the author were opposed to this view. First, he showed that blood in its healthiest state contains no appreciable quantity of the volatile alkali; and, secondly, that ammonia added to the blood in a notable quantity did not arrest the change. Other experiments were described of a confirmatory kind.

"The conclusion finally arrived at was, that we are yet ignorant of the cause of the phenomenon, and that the hypothesis of Dr. Richardson, if acted on in Medical practice, must be attended with risk."

Dr. Harley read a Paper on "Secret Poisoning," in which he repeated the statement which he made last year at the Medico-Chirurgical Society, namely:—

"That he believed the cases of secret poisoning that are discovered form but a small percentage of those that actually occur. Nay, more, he even went a step further, and declared that he not only believed that we magnified the difficulty of perpetrating the crime, but that we were also inclined to exaggerate the facility of its detection. No doubt, modern discoveries in physiology and chemistry had enabled us not only to distinguish between the effects of poison and natural disease during life, but likewise to detect and extract the poison from the tissues after death. But modern discoveries had also made known to us many poisons with which we were hitherto unacquainted. It was in toxicology as in naval warfare,—no sooner was a projectile discovered that was considered irresistible, than our engineers set about discovering armour-plates more invulnerable than their predecessors. So, no sooner does the criminal find a new poison that he can use with impunity, than the experts set about discovering a means for its detection. Dr. Harley remarked, that the great desire of the poisoner was to get hold of a poison the effect of which would so closely resemble that of natural disease as to be mistaken for it. Fortunately, however, this was attended with extreme difficulty, as the effects of poison were generally sudden in their onset and rapid in their termination; for the poisoner seldom had time or opportunity of administering the poisonous agent in so small a quantity and for such a length of time as are requisite to produce an artificial state of disease, which may be mistaken at least by the accomplished Physician for real disease. It had been asserted that in all cases of poisoning where death occurred the poison ought to be found in the tissues after death. Professor Harley, however, pointed out that this was not strictly true; for even in the case of arsenic, which was supposed to be the most persistent of all poisons, if the patient only lived long enough the mineral might be entirely eliminated by the excretions before death, and afterwards not a trace remain to be detected in the body. Such occurred in Alexander's case, when, although it was known that arsenic was the poison which caused the death, none was found in the body. Alexander, however, did not die till the sixteenth day. For this and other reasons the author then said that, 'As the not finding poison in the system after death is no absolute proof that the patient did not die from its effects, the symptoms observed during life, in conjunction with the morbid appear-

ances observed after death, even when no poison is discovered by chemical analysis, ought to be sufficient to convict the poisoner. And even the symptoms alone, if there be good circumstantial evidence, especially if combined with proof of a motive, ought to convict, just as was done at Palmer's trial.' The Professor concluded by saying, that in all cases of suspected murder great care should be taken to avoid telling the persons around the patient of the suspicion. The patient himself should be the first confidant, for, if there was no motive for suicide, he was the most likely to be aware of a motive in the persons surrounding him. The next confidant should be the doctor, who, by obtaining some of the secretions, and having them carefully analysed by a competent person, would soon be enabled to decide if it was a case of secret murder, and perhaps also even to detect the criminal."

In the absence of all valid proof, we may simply say that we do not share Professor Harley's belief in the prevalence of the crime of secret poisoning. Such a crime is contrary to the natural constitution and bent of the English character, and we believe that very few instances occur which are not sooner or later found out. We object, also, to the publication of such a statement in a non-professional assembly, or in any assembly, unless supported by tangible proof. Should such an opinion get abroad, a feeling of distrust and suspicion will be induced which will be productive of obvious and irreparable mischief.

Amongst the Papers read in the Chemical Section was one by Mr. C. Tomlinson on "The Motion of Camphor, etc., towards Light." All books on Chemistry claim for light or electricity the property of depositing crystals of camphor. In druggists' shops the deposit of camphor crystals inside the bottles on the side next the light is a well-known occurrence. Mr. Tomlinson's experiments led him to regard the deposit of these crystals as being from the vapour of camphor, and similar to the deposit of dew. The more he had investigated the subject, the more satisfied was he of the correctness of this view; and the object of his Paper was to transfer this phenomenon from the domain of Chemistry to that of Physics. No deposit of camphor takes place unless one part of the bottle is cooler than another. In a heated tube no deposit resulted from the action of the sun, but the instant a bit of ice was put into it a copious deposit of crystals took place.

Before concluding this notice, we must mention a Paper by Dr. G. Gibb on "The Physiological Action of Bromide of Ammonium." According to the author, the part of the body particularly influenced was the great tegumentary system, both internal and external; indeed, it was the chief structure, next to the adipose or fatty, which was brought under control by its use. The chief effects of the salt he mentioned were an improvement of the complexion, an anæsthetic effect on the mucous membrane of the throat and fauces, permitting a ready inspection of the interior of the windpipe, and a removal or neutralisation of fat or atheroma in the system, which indicated its use in cases of corpulence.

A MEDICO-LEGAL QUESTION.

A woman, far advanced in pregnancy, the wife of a sweep living in an alley in Fenchurch-street, has been found with her throat cut, under circumstances which render it probable that the case was one of homicide rather than suicide. The knife was lying *loose* in the woman's right hand, the backs of the hands were wounded, and sooty and bloody digital impressions were found on her body. Mr. Henry Sequeira, Surgeon, of 1, Jewry-street, Aldgate, who was one of the Medical witnesses in the case, in his examination before the magistrate, advanced the opinion, that the period of cooling of the mother's body after death would depend on the length of time circulation was continued in the child. He said:—

"I should consider that death had taken place at least four hours before I was called in; but, she being in an advanced stage of pregnancy, it would depend on the time of the death of the child how soon the trunk of the body became cold afterwards. If the fœtal circulation had continued after death, it would have caused the trunk of the body to be longer warm than if the deceased had not been pregnant."

It is a question which can only be answered by experience or experiment—but the retardation of the process of cooling the surface by the presence of a living fœtus *in utero*, supposing that the child did survive the mother a short period, would, we should think, be scarcely appreciable.

"THE STETHOSCOPE."

In our ignorance of what is required by the readers and writers of the Profession, we thought that at present there was a redundancy of Medical journals—more than enough to satisfy the reading, and a sufficient number to supply the necessary safety-valve for the writing section. We find, however, that we were mistaken. A new periodical has been started, under the name of *The Stethoscope*, which purports to be a quarterly review of the modern practice in consumption and chest diseases. Glancing through the pages of its first number, the conviction flashes across our minds that we have also been labouring under another and a graver error. We find that we have been entirely wrong as to the meaning to be attached to the term, "modern practice in consumption and chest disease." We begin to catch the idea, that its significance must be restricted to the practice which emanates from a certain Institution, to be hereafter known as the North London Consumptive Hospital. We say, "to be hereafter known," for we suppose that most of our readers have been hitherto as ignorant as ourselves, as to the whereabouts, pretensions, and advantages of the said Institution. We hasten to confess and amend our deficiencies, and turn with humility to be enlightened by the rays of science emanating from the North London Consumptive Hospital, and reaching us through the medium of *The Stethoscope*.

The first number of the Journal contains eighty pages. Of these, fourteen are devoted to an exposition of a theory of tubercle promulgated by a Dr. Godwin Timms, Physician to the North London Consumptive Hospital, in a work, the title of which is not given, although the book is both quoted and referred to. Thirty-two pages are occupied by a paper on "The Nature and Treatment of Consumption, deduced from the consideration of the Vital Forces," by Dr. Edward Head, also Physician to the North London Consumptive Hospital; and twenty-two more are devoted to a record of cases at the North London Consumptive Hospital, under the care of Dr. Godwin Timms. Apparently to break monotony, or to save appearances, four pages have been allotted to a Mr. G. Hill Smith, who recommends a somewhat old-fashioned treatment of pneumonia, viz., that by tartarised antimony; and the rest of the Journal contains an Introduction, and an Address to Students, of which a principal feature is a recommendation to them to carry stethoscopes.

The paper on "The Theories of Tubercle" in general, and on Dr. Timms's in particular, is a unique production. The writer, after stating the ignorance which has prevailed for more than two thousand years on the subject of the production of tubercle, breaks out into the following apostrophe:—

"Oh, consumption, who hast obscurely lurked so long in the 'inmost parts' of man, art thou about to be unveiled? Thou who hast baffled the search of the keenest eyes and most enduring perseverance for so many ages, art thou about to be caught? Is there, yet unknown to fame, a Harvey, a Hunter, a Jenner, or a like benefactor of his kind, among us? Is it reserved for this age to produce, and for this journal to be the first to recognise, a solution of this pathological mystery? Grant it, O Providence, for the sake of suffering humanity!"

The theory of Dr. Timms, which is directly afterwards introduced, seems to be to the effect that tubercle consists of broken-down atoms of tissue derived from the reparative process; that these are deposited from the blood in the lungs,

inasmuch as the blood there loses its carbonic acid, for, because carbonic acid holds earthy salts in solution out of the body, *ergo* it holds broken-down atoms of tissue in solution in the body. The "modern" treatment, as we learn from Dr. Timms's cases, based on this theory, is to give daily emetics in addition to the ordinary administration of cod liver oil, etc. Emetics are supposed to get rid of the excess of broken-down atoms of tissue by stimulating the excretions. Surely, for this solution of the pathological mystery, suffering humanity ought to be grateful to the author!

Dr. Head's paper "On the Nature and Treatment of Consumption, deduced from the Consideration of the Vital Forces," begins with the Egyptian, Greek, and Roman polytheisms, the Brahmins and Buddhists, the true Demiurgus, and the Book of Genesis, and ends with Dr. Timms's emetics and the author's treatment of phthisis by galvanism. We will not attempt to introduce our readers to its mysteries. We fear it might prove too much for "suffering humanity." The only advice we would offer to the Physicians of the North London Consumptive Hospital is to change the name of "Stethoscope" to a more appropriate one. There is an instrument—a wind instrument—to which our children are in the habit of likening the tube of Laennec, which will exactly typify the purpose of such a journal. Need we specify further?

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.

Superintendent of Class 17.

Messrs. Lollini, of Bologna, exhibit many instruments which are very ingenious and of good manufacture. In alluding to them, I would first draw attention to that invented by Professor Fabri for crushing such calculi as are too large to be extracted through the incision made in lithotomy. The stone is received into a strong steel curve, (something like the female portion of a very large lithotrite), and held there by two small rods, which are protruded from what may be called the handle of the instrument; a centre-bit, also contained in the handle, is then set in action, and the stone broken up. This contrivance is ingenious, but not so convenient as that employed by M. Nélaton, to which I have alluded when referring to the contents of Mathieu's case.

Professor Fabri also employs a four-valved speculum, which is extremely ingenious, and which is superior to any other similar instrument that I have seen. Each valve can be turned back and cleaned, which is an important advantage in foreign cities, where the "inspection" is made twice a week; and two of them can be removed, and by means of an ingenious arrangement can be readily converted into serviceable spatulæ.

The same exhibitors show some ingenious instruments, also invented by Professor Fabri, for employment in the operation of vesico-vaginal fistula. One for holding the edges of the fissure, and another for facilitating the application of a ligature, deserve especial notice.

Dr. Puglioli's instrument for the extraction of the fœtus by the foot is likely to be very useful. It consists of a pair of articulated forceps, each half of which carries at its extremity, and at right angles to it, a segment of a smooth steel ring; so that when the blades are open the portions of the ring can be applied round a fœtal ankle, and when closed the ring is complete, and traction can be employed.

Professor Rizzoli's perforator is also a very ingenious and useful instrument. It is somewhat lancet-shaped, and when the skull has been perforated, and the brain broken up, the extremity of one of the blades can be made to assume a horizontal position by a simple arrangement, which is easily under the operator's control, and considerable extracting force brought to bear on the remains of the fœtal head.

Messrs. Lollini's amygdalatome possesses a slight advantage over other instruments of the kind, inasmuch as its cutting blade divides the tonsil by means of an oblique movement. However, there is not much chance of the amygdalatome superseding the bistoury and forceps.

The pelvimeter invented by Dr. Grilenzoni, of Ferrara, one arm of which can be shortened or lengthened at will, and which is adapted for both internal and external measurement, is also exhibited by Messrs. Lollini. They also show some well made amputating knives, which are rather remarkable specimens of industry; for until Bologna became part of Victor Emmanuel's kingdom in 1859, the manufacture of instruments of this kind was not allowed without a special permission from the Papal Government. Notwithstanding such difficulties as these, the Messrs. Lollini have made so great an advance in the manufacture of Surgical instruments generally, as to justify the opinion, that this branch of Italian industry, at least, will receive full development in the future. The few other exhibitors in this class from Italy show no Surgical instruments worthy of notice.

The most remarkable cases in class 17, which are to be found in the Prussian Court, are those of Lutter, Windler, and Goldschmidt, (Berlin). In that belonging to Lutter, Cohm's cephalotribe is to be seen.—This instrument consists of the usual strong crushing blades, to which are added two other shorter and smaller ones with cutting edges, which work inside the larger, and, as these latter are approximated, are brought together, and made to pass each other, so that the fœtal head is not only crushed, but divided by the instrument. It is, perhaps, the most formidable contrivance yet invented for the purpose of destroying the fœtus; and I may here express a hope, that the time is not far distant when the operations of craniotomy and cephalotripsy will altogether cease to be performed; when it will be the rule for the Medical man to make the first vaginal examination of his patient as soon as he believes her to be pregnant, instead of deferring it, as is very often done now, until she is well advanced in labour, and the painful fact has to be declared, that the disproportion between the skeletons of the mother and fœtus is so great that the former can only have a chance of recovery by the destruction of the latter. Surely this horrible alternative would be very frequently avoided if the dimensions of the pelvis were known during the earlier months of gestation.

The obstetric forceps of Christeller are also shown by Lutter. It is curious that, until the invention of this ingenious instrument, there was no means of ascertaining the exact amount of traction exerted on the fœtal head. By means of Dr. Christeller's forceps this can now be done, for each handle is furnished with a graduated scale, on which a small button moves, in proportion to the force brought to bear on a spring which is contained in each handle, and is in connection with the corresponding blade.

Lutter also exhibits a pair of Busch's obstetric forceps, the proportions of which are excellent. They are beautifully made, and covered with a good lacquer. In the same case may be noticed Lutter's porte-ligature for use in the operation of cleft palate, which is highly ingenious; however, I cannot help remarking, that all these contrivances do not seem to render the operative proceeding more successful than when an ordinary ligature-needle, of proper curve, is employed. He also shows some useful instruments for separating the mucous membrane and periosteum from the hard palate, and for subperiosteal operations generally. Lutter's bullet-extractor also merits a word of description. A small blade, curette-shaped, separates from its fellow (which is immovable), and is brought again into contact with it by pressing a handle. Among the many other instruments which Lutter exhibits, and which are all remarkable for great excellence of manufacture, I may draw attention to a truss with a flat ivory pad. A great many exhibitors from other countries show trusses, the pads of which are less convex than formerly was the case, and I am much surprised that they have not already more generally employed a much flatter shape. Many a hernia has progressively increased in size, in consequence of the patient being furnished with an appliance, which gradually enlarged, and destroyed the already dilated inguinal canal.

Windler, of Berlin, shows a very simple and efficient dilator for the cervix uteri, and a cephalotribe that is furnished with a chain-saw, which is intended to gradually tear its way through the fœtal head. The ophthalmic instruments which this maker exhibits are excellently manufactured; but I do not notice any novelty among them. A double saw for dividing the laminæ of the vertebræ attracted my attention; by it the tedious operation of examining the spinal cord would

be much facilitated, and it is an instrument that should be found in every dissecting-room. The contents of Windler's case are quite as remarkable for finish and general excellence of manufacture as those of Lutter, to which I have alluded: in both these respects the Austrian makers can safely challenge comparison with those of any other country.

In concluding my notice of this week, I will allude to two instruments which are exhibited by M. Mathieu in the French

Fig. 1.

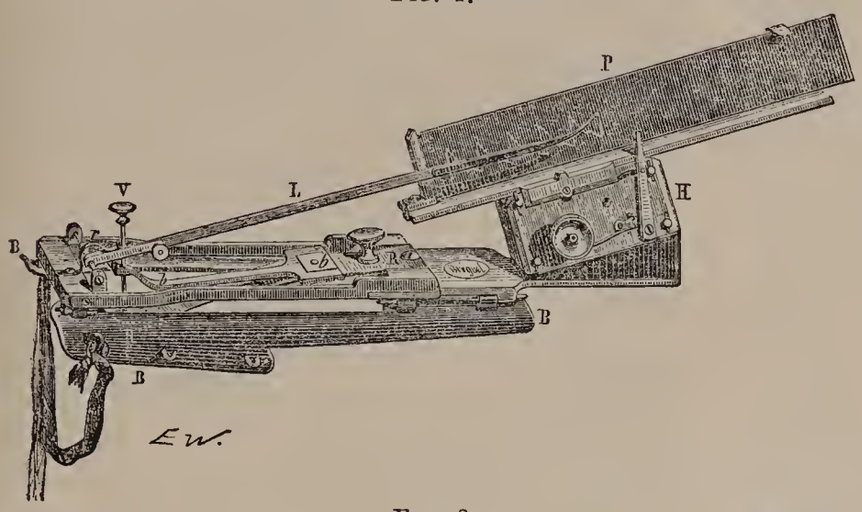
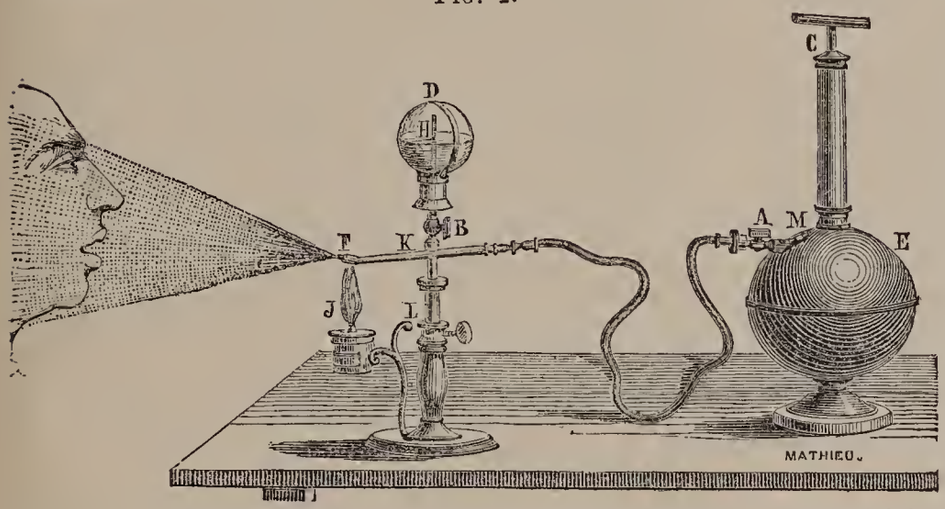


Fig. 2.



court, with wood-cuts of which I have been furnished since I more particularly referred to the contents of his case. The first of these (Fig. 1) represents the sphygmographe of Dr. Marey. It is applied on the lower part of the forearm, the end H being turned towards the elbow. The different portions of the instrument are fixed to a frame-work of metal, and to two lateral portions (BB) which are articulated with it. This frame-work and its lateral portions form a kind of groove, which is adapted to the anterior part of the fore-arm, and it is furnished with a tape which can be passed behind the arm, reflected over the hooks (seen in the diagram), and fastened so as to render the adaptation of the instrument more perfect. When it is in exact position, a small spring that is situated inside the metal frame ought to be accurately applied over the radial artery. Each pulsation of the artery lifts up this spring, and the movements of the latter are communicated by means of the piece B to the lever L, which, of course, renders them more apparent. The extremity of this lever then describes a series of movements, which are sufficiently extensive to be capable of accurate ocular examination, and which vary in character with the form of the pulse. To obtain an exact idea of these movements, they can be registered in the following manner:—The extremity of the lever L carries a fine pen-point, which is in contact with a metallic plate covered with paper, that is moved in a direction parallel with that of the lever by clock-work contained in the box H. By the combination of these movements a series of curves results, the number of which is identical with that of the pulse, and the form of which corresponds with numerous types, several of which accurately characterise certain diseases of the heart and large vessels. The frequency of the pulse is judged from the number of pulsations inscribed on the paper, the rapidity of movement of which is always the same. I may add that I have had an opportunity of seeing the results obtained by using this beautiful instrument in certain forms of disease; and it is very interesting to compare the rapid and extensive outline produced in rheumatic fever, with the short, steady jerk that accompanies peritonitis; and to observe the uncertain nature of the pulse in some varieties of heart disease and asthma, and its weak oscillations in typhus and its allied conditions.

Fig. 2 is an illustration of an instrument for the pulverisation of liquids, called by its inventors, MM. Tirman and Mathieu, the "Néphogène." This apparatus, which is highly spoken of by MM. Trousseau and Demarquay, most effectively reduces either pure or medicated water to a state of extremely minute subdivision, and projects it in the form of fog, so that it can readily be inhaled. Professor Gavarret has also made a favourable report of it to the Imperial Academy of Medicine.

The adjoining figure shows the Néphogène in action: the piston C forces compressed air into the receiver E, and the liquid to be pulverised is put in the ball D. On opening the valves at A and B, the air and liquid are driven out of the small orifice F in the state of fog; this minutely-divided liquid may be raised in temperature by a small spirit-lamp J, which heats the tube KF, and can be thoroughly inhaled by the patient. M. Mathieu manufactures this ingenious apparatus of larger sizes for employment in hospitals and other public establishments.

47, Hans-place, S.W.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON COMPLETE OBLITERATION OF THE OS UTERI AS A CAUSE OF DIFFICULT LABOUR.

By M. MATTEI.

M. Mattei has presented to the Academy of Medicine a memoir on the above subject, founded upon an analysis of forty cases which have been already published, and upon the details of two others which have come under his own notice. He thus sums up his results:—1. The complete occlusion of the cervix uteri, whether at its orifices or within its cavity, may be the result of local inflammatory action; but in the majority of cases (in 19 out of 31 in which this has been noted) it has been the result of the organisation of the plastic plug which is found within the cervix during gestation. 2. This obliteration scarcely ever prevents the pregnancy reaching its full period, and sometimes even retards it. Examination alone reveals it at the time of labour. 3. The occlusion is generally (36 times out of 42) sufficiently firm to resist the natural efforts, to such an extent, indeed, that the woman has in some cases (3 in 42) died undelivered. Where interference has been tardy also, the death of the child (7 times in 28 cases noted), and even the death of the mother (2 in 28 cases noted), have been the result. 4. When the obstacle has not been very resisting, the nail or the female catheter has sufficed to overcome it; but when these do not succeed, the scissors or bistoury must be resorted to. 5. The bistoury has been in general preferred, but its employment is not unattended with danger, as it has to be employed at the bottom of the vagina, usually unassisted by the eye, as the division of the very vascular tissues is capable of giving rise to hæmorrhage, as the angles of the wound may enlarge beyond the point of incision, and as the fœtal parts may themselves become injured. 6. To obviate these inconveniences we may substitute for the bistoury

the point of the grooved director, applied with force during the uterine contraction at the lowest part of the tumour, or, when it can be recognised, at the point occupied by the cervix. In this way a passage may be hollowed out through the tissues, the danger incident to the employment of the bistoury being avoided.—*Bull. de l'Acad.*, Vol. xxvii. p. 970.

ON THE CHANGE OF WEIGHT IN NEW-BORN INFANTS.

By Drs. HAAKE and WINCKEL.

This subject has much occupied the attention of the German Accoucheurs. In a recent volume(a) we laid the conclusions arrived at by Siebold before our readers, and we now proceed to give those of two other observers. Dr. Haake furnishes an account of the careful weighing of 100 healthy, mature infants at the Leipzic Lying-in Hospital. The following were the results:—1. Every child decreases in weight during the first days of its extra-uterine life. 2. After the third day an increase of weight takes place, so that the child's original weight is usually recovered by the ninth day. 3. The loss of weight is less, and its gain greater, in male than in female infants. 4. There is no connexion as to time between the fall of the funis and the increase of the infant's weight. Dr. Winckel has also communicated to the Berlin Obstetrical Society a rather elaborate paper upon the same subject, also based on the examination of 100 children. From his investigations he concludes:—1. Male infants upon the average were more heavy than female. 2. The fall of the funis in three-fourths of the cases took place between the third and fourth day. 3. All the children diminished in weight soon after birth. 4. The diminution continued in most for two or three days. 5. In full-timed, healthy children, fed by the mother's milk, immediately that this diminution had ceased, an increase took place. 6. The period of this usually coincided with the fall of the funis. 7. Most of the children by the tenth day had reacquired their original weight. 8. These results do not apply to infants fed with cow's milk, or which were not quite full-timed. The former, for the most part, continued to diminish in weight some time after the fall of the funis, and the latter fluctuated in their increase. 9. Diseases of mother or child either prolonged the period of diminution of weight, or rendered the increase slight and fluctuating.—*Monatsschrift für Gebürt Skunde*, Vol. xix. pp. 339 and 416.

FOREIGN CORRESPONDENCE.

RUSSIA.

St. Petersburg, September 20.

THE MINISTRY OF MEDICAL AFFAIRS.

The celebration of the millennium of Russia's political existence has, as was expected, been accompanied with bestowals of decorations, elevation of rank, and appointments to deserving and undeserving individuals. Amongst the appointments of importance to the Medical Profession of this Empire I may mention that of M. Zizurin as Chief of the Medical Department of the Ministry of War (that is, Minister of Medical Affairs), in the place of M. Tenochin, who has resigned. This change of persons may be considered equivalent to a change in the system of administration, and is one of such magnitude, that it might be called a revolution, if it had not been effected in so pacific a manner. I have no intention of running down the late Minister, and am willing to acknowledge his merits; but while he was active Director of the Medical Department, he did mischief, in so far as he belonged to the old despotic party, which is now, happily, almost extinct in Russia. Since his resignation he has been nominated Inspector-General of the whole Army Medical Department, and he retains his place as Physician to the Emperor, so that he has evidently not fallen into disgrace.

His career has in many respects been peculiar. When the present Emperor was Grand Duke, he was affected by a severe disease; and on the late Emperor Nicholas once suddenly entering his room, M. Tenochin, who was then an Army Surgeon, and had on that day the watch of the sick-bed of the Grand Duke, was found in tears. On being questioned as to the cause of his emotion, he replied, that it was occasioned by his solicitude for the exalted patient's health. This, of course, could not but be gratifying to an Emperor and a "father's feeling," and M. Tenochin being also a tall and handsome man, the Army Surgeon was soon appointed Physician in Ordinary to the Grand Duke. He was thus in constant communication with the present Emperor, and rose by degrees, until, on the accession of the Emperor in 1856, he was appointed Chief of the whole Army Medical Department. The course of his career proves that he owed his position not so much to his eminence as a Medical Practitioner, or to any scientific merits or efforts to ameliorate the Medical department, but to personal favour. He had, however, the rare merit of being altogether incorruptible. He was the first who did not take advantage of his office for selling commissions and amassing a private fortune. Moreover, he removed all officials who were in any way suspected of taking bribes. M. Tenochin was unable to make many improvements in his department, but his assistant, M. Kaslof, was a man of superior attainments, so that a few reforms were nevertheless effected. The condition of Army Surgeons was improved and their uniform embellished, and the Emperor's favours were not abused by intrigues; but, on the other side, everything was done to set aside foreigners in the Medical Profession. This animosity against foreigners was carried too far, for Russia can at present not do without them. Advanced age and failing health, due to atheromatous deposits in the arteries, caused M. Tenochin to retire.

His successor, M. Zizurin, was formerly Professor of the Medical Clinique of Kiew, from whence he was in 1858 called to Warsaw, there to found a Medico-Chirurgical Academy. Although he left his chair in Kiew with great reluctance, he did not hesitate to obey the summons of the Emperor. He first travelled over Europe, in order to become personally acquainted with the best Universities, Hospitals, Cliniques, etc., and in order to gain eminent men for the Academy. The difficulties with which he had to contend were immense. Being a Russian, he was disliked by the Poles, whose language he did not understand; and as he could not do much with native teachers, he had to choose foreigners, whom he could not protect against the ill-will of the Poles. When the staff of the Academy was at last formed, it consisted of Germans, Russians, and Poles, amongst whom more enmity existed than friendliness. To add to his difficulties, the students became convulsed by political excitement. On the one hand, the Emperor commanded, and on the other, the Poles were dissatisfied; and, besides this, he had to satisfy the claims of science. However, he at last succeeded in conciliating the most heterogeneous elements: he retained the Emperor's good will, and became popular with the Poles. The Academy soon began to flourish. The teaching was good, and Medical works were published by it in the native tongue. Nevertheless, M. Zizurin was glad to escape from Warsaw, where politics are now the all-absorbing element, and the hatred between the two nations is increasing every day. There can be no doubt that, with M. Zizurin's appointment to the ministry of Medical affairs, a new era has been inaugurated for the Medical Profession of Russia.

THE WEATHER AND THE PUBLIC HEALTH.

We have just had the first snow-fall, and may therefore speak of the past summer. It has in all respects been an abnormal one. Although the Russian climate is generally unpleasant, this year it has been more than usually dreadful. The winter was exceedingly severe, and the summer wet and cold. The rain has been incessant, and we have been obliged to have fires even in July. Some improvement took place in August and the first half of September, and the public health has been more satisfactory than it often is in the hot summers. But the cold and frost are already exerting an unfavourable influence; there is much inflammation about; consumptive patients complain of hæmoptoë and cough, and many patients, and even otherwise healthy persons, are attacked by scurvy. Although St. Petersburg is not a sea-town, yet scurvy is one of the endemic plagues of this place. Whoever is unfortunate enough to remain some time in a Hospital for any disease whatsoever, is sure to get scurvy, which complicates and modifies all complaints, protracts convalescence, and compromises the success of surgical operations. It is generally worse in autumn; while in winter, if we have a severe but dry cold, we have much less of it.

(a) *Medical Times and Gazette*, 1861, Vol. i. p. 284.

GENERAL CORRESPONDENCE.

RAPID REPRODUCTION OF CALCULUS OF THE BLADDER AFTER OPERATION.

Letter from Dr. Drysdale.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case appears to me to be worthy of the attention of your Surgical readers :—

On September 21 I was asked by a friend to see a patient, and found him in the following condition : Pulse 150, sharp, wretched ; complains of stabbing pains in abdomen, and also of pains in region of kidneys. The pain is constant. States that he was operated on for stone in April, 1862, by an able Surgeon, who removed as many as twenty stones at that time. He remained in Hospital until the middle of August, and then returned home. The wound in the perineum had not completely healed, and there was a slight but constant dribbling of urine from the fistulous opening in the perineum. He had also, he said, been subject to great dysuria, and had passed small quantities of blood with his urine of late.

The patient's symptoms pointed to peritonitis, probably caused by some infiltration of urine into the peritoneal cavity. I had then but feeble hopes of his recovery. He died on the morning of September 24, after much suffering.

Post-mortem, Thirty-six Hours after Death.—Rigor mortis well marked ; belly tympanitic. There is still a well-marked line in the perineum, showing the direction and extent of the incision used in the operation ; and a small orifice leads to the bladder, but is too narrow to admit a probe. *Abdomen.*—On opening the cavity of the abdomen, there is found about a cupful of purulent-looking fluid. The convolutions of the intestines are glued together by recent lymph. There is a strong odour of urine. *Kidneys* are not noteworthy, either for increase in size, or in other respects. *Bladder.*—The muscular coat of this viscus is thickened. On opening the bladder there were found no less than nine stones of the form of a triangular pyramid, weighing together close upon four drachms. These calculi were greyish-white, soluble in acetic and hydrochloric acid, and were entirely composed of triple phosphates.

The patient was operated upon and relieved of twenty stones in April, and now already, in the month of September, were reproduced three calculi, weighing close upon half an ounce.

I am, &c.

Charles Drysdale, M.D., M.R.C.P. Lond., F.R.C.S. Eng., Physician to the Farringdon Dispensary.

CASE OF AMPUTATION WITHOUT LIGATURE OF THE ARTERIES.

Letter from Mr. Charles Gayleard.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case may be of interest to some of your readers, from the circumstance that it was not necessary to apply any ligatures to the arteries of the stump after amputation.

José S., aged 13, received a severe comminuted fracture of tibia and fibula in the lower third, with laceration of the muscles and arteries, from an earth-waggon going over the leg, December 3, 1861. I had no alternative but to amputate, and decided on giving chloroform, which I administered carefully myself; but I was compelled to trust it, while I was operating, to other hands.

As the patient must have lost a great deal of blood, I performed the operation as quickly as possible. There was but little hæmorrhage, and, on loosening the tourniquet, no arterial jet. I instantly examined the heart, which I found was not beating: the patient appeared lifeless, with foaming at the mouth, and fixed jaws. Ammonia, frictions, tickling of the nose and ears, and other means, were employed; and, after twenty minutes' perseverance in them, he gradually came round. Yet there was no hæmorrhage from the stump, which I next proceeded carefully to bandage up with lint, placing it on a pad and splint.

Wine and beaten eggs were given; the pulse being very small, almost imperceptible. I sat by his side all night, with everything ready, in case bleeding should occur. The next morning, at 10 a.m., the thermometer being at 80°, I was obliged to change the lint, using the utmost care. The day after, I was so well satisfied with the appearance of things, that I left the patient for twenty-four hours, to attend a case of gun-shot wound, from brigands. For two weeks it was carefully watched, but nothing but healthy suppuration occurred; and now he is walking about on his wooden leg. I can freely say that the only surgical instruments used in this case were the knife and the saw. This case is interesting, as suggesting the probable causes of death by chloroform, when patients have actually sunk from syncope.

I am, &c.

Charles Gayleard, M.R.C.S.E.

Railway Works, Pojura Hospital, Bahia, Brazil.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, October 1, 1862.

Dr. Tyler Smith, President, in the Chair.

Dr. H. Thornton and Dr. F. F. Sutton were elected Fellows of the Society.

D. Richards, Esq., of Brighton, communicated

NOTES OF A CASE OF SPINA BIFIDA FOLLOWED BY HYDROCEPHALUS.

In this case, the child (a female) was born with both legs doubled up to the shoulders, with spina bifida, angular curvature of the spine, cleft palate, and talipes varus of both feet. The birth took place on April 4, 1860 ; and on May 2, the left leg descended from its abnormal position, and a fortnight afterwards the right leg came down. From the time of birth the opening in the spinal canal began to close, the integument having been absent, as well as the spinous processes of the three lower dorsal vertebræ. As the opening diminished, however, the head gradually enlarged. Subsequently, the aperture in the spine completely healed, and the size of the head somewhat diminished, but the child died from exhaustion on October 11, 1860.

A Paper by William Tilbury Fox, M.D. Lond., University Medical Scholar, was read on

IMPERFORATE RECTUM—ATTEMPT AT RELIEF BY OPERATION—DEATH.

On June 5, the author was requested to take charge of the following case :—William M., aged four days, has passed nothing since birth per anum; apparently free from actual pain; exhausted; vomiting of offensive dirty fluid constant, nothing being retained in stomach; surface cold ; flatus; passes urine ; belly greatly distended, tympanitic, tender. On examination was found a small but normal-looking anus ; a probe, however, passed about an eighth of an inch only into a cul-de-sac. The most careful examination failed to detect anything like the impulse or feel of a distended rectum. A trocar (with its canula) was passed in the direction of the rectum for the distance of an inch and a half, and the trocar withdrawn. Nothing passed through the canula, which was then removed, and warm water injected along the course of the wound, which was subsequently dilated with a bougie. However, no fæcal matter was seen. The friends took time to consider the suggestion made to open the colon, and before the next visit the child died.

Post-mortem Examination.—General peritonitis. Rectum terminated in cul-de-sac, about one inch from the anus, with which it was connected by cellular tissue, and its lower part was empty and flaccid, but above it was distended by fæces ; and this condition fully explained the non-exit of fæces through the canula, although the trocar had entered the bowel exactly in the centre of its termination. Had any evidence of the presence of the rectum been forthcoming, the gut would have been found and brought down to the level of the anus. The case shows an exceptional condition, which may frustrate the detection of the gut when it terminates only a short distance from the anus, and is within easy reach—viz., the impaction of the upper part by fæces, and the consequent non-distension and emptiness of the lower part of the rectum. It, moreover, points out the desirability (and safety) of making an exploratory search with the trocar, and injecting fluid

through the canula before, and not along the track of the wound after its withdrawal.

A Paper, by Dr. J. H. Bell, communicated by Dr. Tanner, was read on

RUPTURED VAGINA DURING LABOUR—CHILD IN ABDOMEN THREE HOURS AND A-HALF—PELVIC CELLULITIS—RECOVERY.

The patient, aged 28, had previously had normal labours. The labour proceeded apparently naturally at first, but there being cessation of pains for seven hours, ergot was given in two doses of half a drachm each, with half an hour's interval. Shortly after she felt "a tear, a burst, and a flow," and thought the child was born; there was a great discharge of blood. The head was found to have receded considerably, and the hand passed with it into the abdominal cavity. Dr. Bell first saw her three-quarters of an hour after the rupture; the child was in the abdomen, but the patient not suffering from collapse. The forceps were applied, but it was not found possible to deliver thus, and finally the child was turned and extracted. The rent was found to have occurred in the left antero-lateral reflection of the mucous membrane of the vagina, the os uteri being entire. The patient felt "nicely" after the completion of the operation and extraction of the placenta. Subsequently, the patient passed safely through a critical illness, pelvic cellulitis having occurred. She was quite well at the end of two months.

A Paper, by Dr. T. H. Tanner, was read on

THE USE OF MEDICATED PESSARIES IN THE TREATMENT OF UTERINE DISEASE.

The great value of a variety of local applications in the treatment of uterine disease seems to be insufficiently appreciated by the Profession at large. The chief reason, perhaps, for the non-employment of medicated pessaries has been the difficulty of so making them that they can be efficiently applied by the patient herself. This difficulty is overcome by the use of the butter obtained from the theobroma cacao nut, as a material for holding the drugs together, instead of wax and lard. Mr. White Cooper has shown the utility of this butter as a basis for ophthalmic ointments, and it will be found equally valuable for pessaries and suppositories. Though it has the consistence of wax while cold, yet it becomes liquid in a few minutes when introduced into the vagina. After alluding to the cases of uterine, ovarian, and bladder disease in which medicated pessaries are of great service, the communication ended with certain formulæ which the author was in the habit of prescribing. The following are examples:—Mercurial ointment, four scruples; extract of belladonna, one scruple; cacao butter, four drachms; olive oil, one drachm. Mix; divide into four pessaries, and order one to be introduced into the vagina every night. Iodide of potassium, one drachm; extract of conium, four scruples; cacao butter, four drachms; glycerine, one drachm. Mix; divide into four pessaries. Boxes of these pessaries, prepared by Mr. Cooper, of 26, Oxford-street, were placed on the table for the inspection of the Fellows of the Society.

A Paper, by Dr. J. Shortt, was read on

A SINGULAR CASE OF UNSUSPECTED PREGNANCY AND AWKWARD DELIVERY.

The case was that of a lady, aged 40, a European, who had had two children, the last nine years before. She had been at first actively treated by speculum and caustic as for inflammation of the womb, and had taken much medicine with the idea of removing what was considered to be dropsy of the abdomen. The patient was in entire ignorance of her pregnant condition. The escape of a watery fluid for two days was considered as evidence of rupture of the ovarian cyst. At the end of the two days severe pains set in, for which she was directed to be placed in a warm hip-bath and opiates given. While in the hip-bath, however, delivery of a mature living child occurred, to the great surprise of the patient and her friends.

The Medical Directory for 1863.—We are informed that a *second* circular has been addressed to those members of the Profession who neglected to reply to the *first*. The value of the Directory is now so full appreciated by the whole of the Profession, and as its utility must depend on its correctness, we hope each member of the Profession will do his part, by returning the circular duly filled up, and thus co-operate with the Editor in promoting its completeness and accuracy.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 2, 1862:—

Cleveland Smith, Thornton-street, London; John Whitehead, Trinity-square, Borough; Charles Martin Russell, Monmouth-street, Westbourne-grove, W.; Edward Holberton Edlin, St. Bartholomew's Hospital; Edward Meacham, 57, York-street, Cheetham, near Manchester; Albert Dunning Hunt, Chagford, Devon; Caudell Clarke, Wymondham, Norfolk; Peter John Lavin, Bushey, Herts; William Bailey, Tipton, Staffordshire; William Hughes Griffith, Southampton.

APPOINTMENTS.

Broadbent.—John Broadbent, M.R.C.S. Eng., L.S.A. Lond., Surgeon to the Workhouse Hospital, New Bridge-street, Manchester, has been appointed Surgeon to the St. Andrew's District, *vice* Thomas Wilson Dyson, M.R.C.S. Eng., L.S.A. Lond., deceased.

Bromley.—John Bourne Bromley, M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the Dispensary, Stourbridge, Worcestershire, *vice* Henry Horsley, M.R.C.S. Eng., L.S.A. Lond., resigned.

Cameron.—Charles A. Cameron, M.D., M.R.I.A., has been appointed Public Analyst for the City of Dublin.

Cronin.—James D. Cronin, M.D., Surgeon R.N. (seniority January 26, 1855), has been appointed to the *Meander*.

Dobson.—Thomas Dobson, M.D. St. And., L.R.C.P. (exam.), M.R.C.S. Eng., L.S.A. Lond., has been appointed Public Vaccinator for the Township of Holbeck, Yorkshire.

Finucane.—Daniel Finucane, M.D. Univ. Glasg., L.R.C.S. Irel., Surgeon R.N. (seniority December 4, 1858), has been appointed to the *Meander*.

Fothergill.—Stuart Atkinson Fothergill, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Scalby District of the Scarborough Union, Yorkshire, *vice* Henry James Gunning, M.R.C.S. Eng., deceased.

Francis.—Thomas Francis, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for District No. 1 of the Brentford Union, Middlesex, *vice* Edwin Edmund Day, M.R.C.S. Eng., and L.M., L.S.A. Lond., resigned.

Gillespie.—Franklin Gillespie, M.D. Univ. St. And., L.R.C.S. Edin., L.A.H. Dub., Staff Assistant-Surgeon, Army, has been appointed Assistant-Surgeon to the 35th Regt. of Foot, *vice* William Henry Hill, M.R.C.S. Eng., L.S.A. Lond., deceased.

Haldane.—Daniel Rutherford Haldane, M.D. Univ. Edin., F.R.C.P. Edin., L.R.C.S. Edin., has been appointed one of the Physicians to the Royal Infirmary, Edinburgh, thus rendering vacant the office of Pathologist to that Institution.

Holt.—James Holt, Surgeon R.N. (seniority December 26, 1860), has been appointed to the *Meander*.

Horton.—Richard George Horton, M.R.C.S. Eng., L.S.A. Lond., has been appointed Public Vaccinator for the Township of Holbeck.

Jackson.—Henry Jackson, M.D. Mar. Coll. Univ. Aberd., L.R.C.S. Edin., has been elected Parochial Medical Officer for Aberdeen, *vice* George Jaffray Nicol, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., deceased.

Jones.—William Podmore Jones, M.D., M.R.C.S. Eng., and L.M., has been elected Medical Officer to the South Dispensary, Liverpool, *vice* Thomas Skinner, M.D. Univ. St. And., L.R.C.S. Edin., and L.M., resigned.

Mann.—David Mann, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Eastern District of the Township of Holbeck, *vice* Dr. Thomas Dobson.

Martin.—Mr. John Martin has succeeded the late Robert Mason, L.S.A. Lond., as Medical Officer and Public Vaccinator for the Sherburn District of the Scarborough Union, Yorkshire.

Molloy.—Gerald Molloy, L.R.C.S. Irel., Assistant-Surgeon R.N. (seniority May 16, 1857), has been appointed to the *Nile*.

Nagle.—John Nagle, M.D. Univ. St. And., M.R.C.S. Eng., L.M. Cork Lying-in Hospital, has been appointed a substitute for David Cremen, A.B. and M.B. Trin. Coll. Dub., M.R.C.S. Eng., L.M. Dublin Lying-in Hospital, Dispensary Physician, Cork Union.

Nicholson.—Joseph Metcalf Nicholson, L.S.A. Lond., has been appointed Medical Officer and Public Vaccinator for the Workhouse of the Township of Holbeck.

Purcell.—Walter Patrick Joseph Purcell, M.R.C.S. Eng., Assistant-Surgeon R.N. (seniority February 7, 1857), has been appointed to the *Dasher*.

Roberts.—Mr. John Roberts, of Tavistock, has been appointed Dispenser to the Sheffield Public Hospital and Dispensary.

Roper.—C. H. Roper, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Corporation of the Poor of Exeter, *vice* Mr. W. W. James, resigned.

Scott.—William Scott, M.R.C.S. Eng., has been re-appointed Medical Officer and Public Vaccinator for the Western District of the Township of Holbeck.

Weddell.—Thomas Weddell, F.R.C.S. Eng., L.S.A. Lond., has been re-appointed Consulting Medical Officer to the Royal Northern Sea-bathing Infirmary, Scarborough.

DEATHS.

Chisholm.—October 1, at Inverness, Dr. Stewart Chisholm, late of the Royal Artillery. He was the last of the Waterloo Medical Officers who served on full pay.

Kent.—Recently, William Kent, Surgeon R.N. (seniority July 20, 1838) on the retired list.

WINSLOWE.—September 26, at the Vicarage, Tugby, Leicestershire, the Rev. George Erving Winslowe, M.D., M.R.C.S. Eng., Rector of Alexton and Vicar of Tugby-cum-East, Norton, Leicestershire, author of "Essay on Cholera Spasmodica," and several articles in the *Psychologist Journal*, aged 57.

LONDON GAZETTE.

October 3.

ROYAL ARTILLERY.—Surgeon Hugh Crawford Walshe, M.D., having completed twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of October 1, 1858; dated September 3, 1862.

5TH FOOT.—Surgeon Francis Reid, M.D, having completed twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of October 1, 1858; dated August 2, 1862.

35TH FOOT.—Staff Assistant-Surgeon Franklin Gillespie, M.D., to be Assistant-Surgeon, *vice* W. H. Hill, deceased; dated October 3, 1862.

MEDICAL DEPARTMENT.—Joseph Gray, gent., to be Staff Assistant-Surgeon; dated August 28, 1862.

VETERINARY DEPARTMENT.—Francis Walker, gent., to be Acting Veterinary Surgeon; dated October 3, 1862.

2ND ADMINISTRATIVE BATTALION OF GLOUCESTERSHIRE RIFLE VOLUNTEERS.—William Dalton to be Surgeon, *vice* Jessop, deceased; dated September 30, 1862.

4TH COMPANY OF WORCESTERSHIRE RIFLE VOLUNTEERS.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon Samuel Stretton in the above corps.

October 7.

INDIA OFFICE, October 7, 1862.—Bombay Medical Officer.—Promotion.—Surgeon Thomas Brooks Larkins to be Surgeon-Major; dated July 17, 1862.

PATHOLOGICAL SOCIETY OF LONDON.—The first meeting of the Pathological Society for the Session 1862-63 will be held at the rooms in Berners-street, on Tuesday evening, the 21st inst., at eight o'clock, as usual.

THE Hartley Institution, at Southampton, for the advancement of Science and Art, is to be opened on Wednesday next, with great pomp and ceremony, by Lord Palmerston. The Inaugural Ode, to be sung to Sterndale Bennett's music for the Great Exhibition Ode, has been written by Dr. Bushnan, of Laverstock.

ROYAL COLLEGE OF SURGEONS.—From the Annual Report, just published, of the Receipts and Expenditure of this College from Midsummer, 1861, to Midsummer, 1862, it appears that the receipts amounted to £14,135 13s., being an excess of £241 2s. 8d. over the receipts of last year, and derived from the following sources:—Diploma of Membership, £11,429 15s.; Rent, £697 2s. 6d.; Diploma of Fellowship, £451 10s.; Classical Examinations for Membership, £180; Certificates of Qualification in Dental Surgery, £126; Licences in Midwifery, £99 15s. The disbursements amounted to £14,290 7s. 6d., being an excess over *last year* of £708 13s. 5d., and of the present year of £241 2s. 8d.

DISCOVERIES OF FOSSIL HUMAN REMAINS.—It is said that M. Malaise, a Belgian palæontologist, has discovered in the cave at Engihoul, near Liége, portions of two lower jawbones and three pieces of skulls, undoubtedly human. In each jawbone the last three molars remain, all but two of which are much worn, and one is decayed. The pieces of skull are identified as fragments of the occipital and parietal bones; one of the latter is remarkably thick (eight millimètres). In the colour, degree of decomposition, and position, the human bones were indistinguishable from the other animal remains which were found under the stalagmite. This stalagmite is less than two inches thick, and is overlaid by a bed of porous and pebbly silt, varying in thickness from two to three feet. Detailed facts relating to this discovery will be given in Sir Charles Lyell's forthcoming work on the Antiquity of Man. This is not the first instance of the discovery of human remains in the cave at Engihoul, and it would be most interesting to compare the remains there discovered with those which have been derived from the neighbouring cave of Engis.

DEATH OF THE HEAD BOY OF HARROW SCHOOL.—The following account of the recent death of the head boy of Harrow School may be regarded as authentic, and will show that no want of sanitary precaution caused his illness, and that all the resources of the Physicians and nurse were employed in vain to avert his death. His death was ascribed by the three Medical men who attended him to disease of the kidneys. These organs had been affected as far back as 1848, and on several occasions since. During the summer holidays, he was attacked for some days in the same way as previously, and suffered much pain, accompanied by sickness. He returned to Harrow on Wednesday evening, September 17. On Thursday night symptoms of his old complaint reappeared, and he was again in much pain. From this time till the moment of his death he remained in bed, and was carefully watched. On Monday, the 22nd, he appeared to be better; and though he was again less well on the following day, yet no symptom calculated to cause serious alarm appeared till about seven o'clock on Wednesday evening, when he was attacked by the first of a series of convulsive seizures, which continued with brief intermissions through the ensuing night. After the second seizure he lost all consciousness. He died a few minutes after nine on the morning of Thursday, September 25,—just one week after his return to school. His age was 18 years.

ZOOLOGICAL TRANSACTIONS.—The latest published part of the quarto *Transactions* of this Society contains Professor Owen's long-promised memoir, "Comparison of the Limbs of the *Troglodytes Gorilla*, *Troglodytes Niger*, and of different varieties of the Human Race; and on the general characters of the Skeleton of the Gorilla." This is a work of the highest value to osteological students, always a scanty division in the general field of Biological inquiry. The bones of the upper and lower limbs are treated on in detail, and at great length, and the differences between the proportions of the Australian and European skeletons are especially noticed. The contrast, however, between the bones of the hind-hand in the gorilla, and the foot of the Australian, is especially manifest in the 11th plate of this work, in which the opposability of the "thumb," or first digit of the gorilla's hind hand, is forcibly contrasted with the symmetrical "hallux" of the man. The 12th and 13th plates are devoted to front and side views of the skeletons of the gorilla and man, derived from the accurate photographs which were taken by Mr. Fenton, for the Trustees of the British Museum, unquestionably the most correct representations of the gorilla skeleton which have yet appeared. The magnificent character of the illustrations of this work, as well as the accurate comparison of the bones in detail, will render it indispensable to all anthropological students. In Professor Owen's concluding words he says,—"I would remark that whilst the bony frame of the gorilla shows the nearest approaches amongst apes, to the truly human characteristics of the skeleton, it differs in a greater degree than does that of lower Quadrumana by its adaptive developments. These differences relate to the great bodily strength and power of bite of the gorilla, and do not approximate it to any lower form, assuredly not to the baboons with their short and narrow thorax, long and narrow pelvis, long loins, with anapophysially interlocked vertebræ, and short-spined neck bones."

VENTILATION OF HER MAJESTY'S SHIPS.—The question as to the best means of efficiently ventilating Her Majesty's ships, especially iron-cased frigates, has become one of considerable importance of late, and to solve the problem a series of important experiments has been lately made on board Her Majesty's ship *St. Vincent*, in Portsmouth Harbour. On board the *St. Vincent* there are upwards of 450 men and boys sleeping below; therefore it became obvious that a test as to ventilation could be best applied while these seamen were sleeping below. The apparatus by which it is proposed to freely and efficiently ventilate ships is that which has been described in the *Medical Times and Gazette* as the method of Van Heck, which is promoted by Mr. Wilson Phipson, and the results of the various trials have been satisfactory. Mr. Phipson, we understand, has obtained an order from the Admiralty to ventilate the lower deck of the above-named instruction-ship. It was doubtless considered that the apparatus would be put to a severe trial by being tested on a deck 190 feet long and only 7 feet high, in which 450 boys were swung up in their hammocks every night, and therefore the *St. Vincent* was selected. In the hands of Mr. Phipson the invention has proved a complete success. The whole of the air of that 190 feet deck was, as far as we could learn and judge, renewed every fifteen minutes, without the least perceptible draught. Before the application of this invention the atmosphere below was stifling, and the air most unpleasant, to a stranger especially. The apparatus having been applied, not the slightest odour was perceptible, and the men and boys below breathed a pure and constantly-renewed atmosphere. In the company of Commander Marcus Lowther, Dr. Cunningham (Surgeon), Dr. Phipson, F.C.S., and several others, Mr. Wilson Phipson proceeded to explain his apparatus, and to experimentalise by filling the deck with smoke produced by gunpowder. He then pointed out the manner in which the air was renewed,

and also the time required for its renewal. In a very few minutes all traces of smoke had entirely disappeared. The fresh air enters by an artificial patent wind-sail, containing a ventilator, connected with a two horse-power steam-engine. The arrangements are so constructed, that with 40, 50, 60, and 80 strokes of the piston per minute, 400,000, 500,000, and 600,000 cubic feet of pure air are supplied per hour. The supply given entirely depends upon the number of men breathing the air below, each individual requiring a certain quantity of air per minute; and the apparatus is so disposed that an amount, a little greater than can ever be required, is furnished by the machine, as we have before stated, without any perceptible draught. The air, it appears, enters the deck in cyclones, which are bipolar, or composed of two curves—a curve of maximum and a curve of minimum velocity. The quantity of air supplied is indicated at any moment by the needle of a dynamometer connected with the ventilator. The expense of this invention, premising that 700 men are on board, is, as near as we can ascertain, about $\frac{7}{10}$ths of a farthing per man per night, so that the plan is not only completely efficacious, but exceedingly economical, and its beneficial effects would be perceptible on board every ship in the service, to which this invention will doubtless be applied.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

St. Thomas's.—Many thanks.

Z.—Dr. Garrod's, Dr. Fuller's, Dr. W. Gairdner's, Mr. Spencer Wells', and Sir Charles Scudamore's works.

Medical Men and Coroners' Fees.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—About a month ago, I was concerned as Medical witness in the case of Mrs. Coleman, who died in consequence of a shock received on the Crystal Palace Railway. The Coroner, Mr. Humphreys, at the conclusion of the enquiry, passed a paper to me for my signature as having received the fee of one guinea. Thinking that, as upon former occasions, the fee would be immediately handed to me, I without hesitation signed it. The fee, however, was not offered to me; and the Coroner being engaged in conversation, I spoke to his officer to the effect that, not having received the guinea, I supposed he would call upon me to pay it; to which he replied that when the Coroner settled with him he would call upon me. Some days passed by, and then, finding that he did not call, I was induced to write to the Coroner. Suffice it to say that no notice was taken of that letter, nor of a second one, and that I have called three times at Mr. Humphreys' office, upon each occasion being treated with courtesy by the clerks, and that upon the occasion of my third visit to-day (October 7), the clerk informed me that he saw Weller, the Coroner's officer, yesterday, who said that, if I would call at his house, I should have the fee, having left it with his wife, he living somewhere in the Hackney-road.

Is such treatment as this to be submitted to by Medical men?

I am, &c. Edwin Payne, M.D.

34, Artillery-place, Finsbury-square, October 7.

The Treatment of Diphtheria.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Chlorate of potash in full doses, given in acetate of ammonia mixture every three hours, is an effective remedy in diphtheria, typhoid fever, and erysipelas in their early stages; and tincture of sesquichloride of iron, with disulphate of quinine, in the latter stages, if symptoms of sinking, or want of power, should come on. As a local application to the throat, equal parts of sesquichloride tincture of iron and tincture of myrrh, applied with a camel-hair brush three or four times a day, and alternately the use of chlorate of soda, has, in several cases, given extraordinary relief.

An old man, sixty-three years of age, was admitted into the sick ward of the Cheltenham Union Workhouse with femoral hernia of the right side; it had been down four days. He suffered from vomiting, constipation, pain, and tympanitics. Upon slightly depressing the tumour, and steadily keeping up pressure, and using the taxis, the intestine returned into the cavity of the abdomen with a slight jerk and sound. His sufferings were at once relieved.

Femoral hernia is uncommon in the male subject, and on the right side of the abdomen; most of the cases are observed to be on the left side.

I am, &c. Henry Bird.

Academic Costume for St. Andrew's.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have been requested by Dr. Day to communicate to the Medical Journals information of the fact of the "Senatus" having very recently assigned an academic costume to the Medical graduates of St. Andrew's. The costume is as follows;—

The cap and gown for Bachelors and Doctors of Medicine are to be similar to those worn by Masters of Arts of Cambridge; and the gown may be made of silk or stuff, at the option of the wearer. The hoods are to be also of the same shape as the Cambridge hoods, but of distinctive colours and materials. The M.B. hood may be made of either black silk or stuff, with an edge of purple silk two inches wide, inside and outside. The M.D. hood, which is very handsome and elegant, is to be made of purple cloth, lined with rose-coloured silk.

It is to be hoped that the St. Andrew's graduates will generally provide themselves with this costume, and wear it on all those public occasions when University men usually appear academically attired. They will thus indicate that they are graduates in Medicine, and, by showing their colours, will prove that they are not ashamed of their connexion with the time-honoured University of St. Andrew's. It is also desirable that, at the next conferring of degrees in December, all the candidates admitted to that honour should wear their proper academic costume.

Mr. Brown, tailor and robemaker, of St. Andrew's, will supply the correct costume, according to the regulations of the University, and, unless composed of the very best materials, it may be procured for a moderate price. A certain number of sets will most likely be kept by him on hire for the use of those who do not wish to purchase.

I enclose my card, but prefer signing myself—Yours, &c.

October 4. M.D. St. Andrew's.

Infanticide.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your last week's Number I perceive a letter from "A Barrister," on the subject of "Infanticide." I am willing to concede to the writer every praise for his evidently well-meant benevolence, but I cannot help thinking that the remedy he proposes would, so far as public morals are concerned, make matters much worse. What is his remedy?—"The establishment of Foundling Hospitals for the reception, without scrutiny, of the innocent offspring of sin and shame." Now, Sir, I will take upon myself to assert, and I believe, if it were put to the vote, my opinion would be endorsed by four-fifths of the thinking public, that with such an arrangement (though there might be no infanticide) a vast increase of immorality would overspread society, and to one case of infanticide, as at present, we should have a hundred illegitimate births, the children being, "without scrutiny," so carefully and comfortably disposed of in charitable asylums; and it must likewise be observed, that the expense of Foundling Hospitals—and we may, without exuberance of fancy, suppose them springing up in all parts of the Kingdom—must be borne by the nation. We are oppressed as it is by the weight of excessive pauperism. For heaven's sake, let us not add this abomination to the burthen. The expense, however, of building Hospitals, and supporting thousands of children with nurses and Doctors, etc., would be only part of the evil; while the incentive to the easy and unrestrained indulgence of vicious commerce of the sexes would be fearful to contemplate. A fear of consequences, as a rule, holds back most females when exposed to temptation. The expense of the maintenance of a child, and the responsibility and anxiety attached to a concealed parentage, are great drawbacks to self-indulgence; but by this system those preventive influences are nullified. Reference has been made by your correspondent to "the hackneyed assertion, that by thus extending a helping hand to suffering humanity we should be offering a premium to immorality, because," etc., and he expresses his disinclination to confute the assertion. He so far, then, admits that such a principle of argument can be brought against him. Be assured it can; and I would advise him to reconsider his plan, and pause before continuing to advocate a scheme so pernicious—so dangerous to the well-doing of society.

I cannot conclude, Mr. Editor, without saying that, in all cases of seduction, the woman is usually less culpable than the man; but encumbered, as she directly is, by the ordination of nature, with the offspring of her guilt and shame, she must necessarily be the conniving, if not the sole agent in its destruction; while her seducer, the prime agent in the moral and physical ruin, escapes with impunity. It should be otherwise. If the murders of children can be distinctly brought home to their mothers, the cases should, of course, be treated in a judicial manner, tempered with as much mercy as possible; but is there no way of getting hold of the fathers of these children, and making an example of them? If, in every case of infanticide, it was the law that, when found, the father (though in no wise implicated in the murder) should be subjected to penal servitude, depend upon it, Sir, men would be more cautious in the indulgence of their passions, and the crime of infanticide much less frequent. I am, &c.

60, Wyndham-place, Bryanston-square. J. C. Gerrans.

The Brain of Man and the Apes.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I venture, in the present stage of the above controversy, which was revived once more at Cambridge on Friday week, to offer a few observations on the nature of the evidence which was submitted to the British Association by Professor Owen.

In the course of his lecture he exhibited the cast of the interior surface of the skull of the specimen of male gorilla in the British Museum, which skull was recently bisected. In this cast, which to all intents and purposes was an accurate representation of the exact size and shape of the gorilla's brain, every individual present in the Zoological Section had ample opportunity of observing that the cerebellum was distinctly uncovered by the cerebral lobes. This fact can be confirmed by any one who saw the cast in question. When a line from the extreme end of the superciliary ridge to the posterior edge of the occipital foramen is made horizontal, the natural position of the skull of the gorilla when alive, the cerebellum is visible when looking at the cast from above. It is very remarkable that some of the Zoologists present in the section should have preferred, instead of admitting this obvious fact, to import extraneous matter into the discussion, and for "strategic reasons" to introduce metaphysical and psychical arguments wholly independent of the anatomical facts. The fact, that the cerebellum is uncovered to a portion of its extent by the cerebral lobes in the gorilla, has been admitted by M. Gratiolet in his memoir in the *Comptes Rendus* (April, 1860), a fact which even Professor Rolleston, in his paper in the *Medical Times and Gazette* (February 22, 1862), is forced to recognise; however, by dint of metaphysical reasoning, this most important fact is explained away, on the ground of the alleged inferiority of the gorilla in the serial scale.

"The laws of ethics and the love of truth," in Professor Rolleston's memoir last February, induced him to say "that no conscientious anatomist should describe a preserved brain without having side by side with it a cast of the skull whence it was taken."—P. 184. When, however, a cast of the interior surface of the skull of the gorilla is exhibited before a public audience, as this unpleasant fact demonstrated that in one Anthropoid ape, at least, the cerebellum was visible from above, uncovered by the cerebrum, the ground is instantly shifted to the psychical aspect of the question, and the wholly irrelevant topic of man's moral supremacy is introduced to darken the subject with considerations incapable of zoological demonstration.

The requirements of strict anatomical accuracy are not always regarded by those who ostentatiously parade their deference to "the laws of ethics and the love of truth." In the *Athenæum* of April 13, 1861, appeared an

accurately-drawn section of the gorilla's skull, on which certain arbitrary lines are inserted. Professor Huxley there says,—"Now, as all anatomists are aware, a strong membranous partition, the 'tentorium,' extends like a shelf, between the posterior lobes of the cerebrum and the cerebellum, and the edges of this partition are attached, along an easily recognisable line, upon the inner wall of the cranium; this line, therefore, furnishes the desired boundary between the peripheral portions of the cerebral and cerebellar cavities. In the figure, the line A B is drawn through the anterior and posterior attachments of the tentorium, and the perpendicular C D is let fall upon it so as to pass through the posterior attachment of the same partition." The artificial line A B in Professor Huxley's drawing, so far from passing through the true anterior attachment of the tentorium, *i.e.*, the hinder part of the "posterior clinoid process," falls far beneath it, and is drawn from the posterior attachment to the distal end of the pre-maxillary. This depression of the assumed normal horizontal line of the brain and upward boundary of the cerebellum has, of course, the effect of making the space *a b c e*, alleged to be "filled by the hinder part of the posterior cerebral lobes, which consequently projected beyond and behind the cerebellum for the distance measured by the length of the line *e d*," twice as large as would be if the line A B was measured from the posterior clinoid process to the internal occipital protuberance.

It is most instructive to read the opinion which England's greatest anatomist—John Hunter—expressed on this subject seventy years ago. In his lately-published posthumous papers, the following passage will be found. Speaking of the "Brain of a Monkey" he says:—

"There is no additamentum [cornu posterius] to the ventricle. The corpus striatum is more rounded, and does not pass so far back over the thalamus. The thalami are more united. The cerebellum sends two lateral processes of dura mater, and above the seventh pair of nerves. The medulla oblongata is more flattened. The optic nerves unite nearer the foramen opticum than in the human. The pineal gland is smaller in proportion, and lies quite between the two testes [hinder bigeminal bodies], which are larger in proportion."—(J. Hunter, "Essays and Observations." 8vo, London, 1861. Vol. ii. p. 7.)

At the time when it is authoritatively stated in the *Proceedings* of the Royal Society, Vol. xi. No. 45, that upon a dissection of *Macacus erythæus*, F. Cuvier, (=*Macacus rhesus*, Desm., of many authors, amongst whom Fischer. George Cuvier says, "*Il me paraît un vrai macaque* [*S. cynomolgos*] *dont la queue était coupée,*") the *hippocampus minor* was found "almost as large as in man, the testimony of Tiedemann (*Icones Cerebri Simiarum*, &c., folio, Heidelb., 1821), which is studiously kept out of sight in Prof. Rolleston's paper, (*Medical Times*, February 22, and March 15, 1862), is instructive. Tiedemann, in his 2nd plate, figure 3, gives a careful representation of the brain of *Macacus nemestrinus*. The most ardent transmutationist will scarcely allege any *affaissement* or posthumous artificial distortion in this case, and the representation he gives of the shape of the ventricle is most striking. The posterior horn, instead of forming a digital or ancyroid cavity in this species—instead of curving backwards and inwards as in man, is represented merely by a furrow or indentation, which Tiedemann is careful to discriminate, not as a true posterior horn, but as "*Scrobiculus parvus, loco cornu posterioris.*" It is known to all anatomists, though Prof. Rolleston unaccountably does not mention it in his paper, that in Tiedemann's twenty-second corollary (loc. cit. p. 51) he says distinctly, "*Pedes hippocampi minores, vel ungues, vel calcaria avis, quæ a posteriore corpus callosi margine tanquam processus duo medullares proficiscuntur, inque fundo cornu posterioris plicas graciles et retroflexas formant, in cerebro Simiarum desunt; nec in cerebro aliorum a me examinatorum mammalium occurrunt: Homini ergo proprii sunt.*"

With reference to the Platyrhine monkeys, I will remind your readers of the fact, that John Anderson, Esq., M.E.S., in Todd's "Cyclopædia of Anatomy and Physiology," Vol. iii., p. 624, figures the brain of *Callithrix* —— (?) natural size, the right lateral ventricle being exposed. In this drawing there is not the slightest trace of any posterior *cornu*, or *hippocampus minor*.

The advocates of the existence of the disputed organs in *Quadrumana* not content with the fancied demonstration of their presence in the Anthropoid apes, and the allegation of their discovery in the South American monkeys, have attempted to prove their existence in some of the lowest Lemurs.

It is said that Burmeister ("Beiträge Der Gattung *Tarsius*," 4to, Berlin, 1846) affirms the existence of the posterior *cornu* in that animal. Reference to his plate, however, shows the degree to which the learned fossil carcinologist predicts the existence of the hinder horn. The narrow fissure, or thin line, which extends backwards from the middle *cornu*, requires much exercise of the imagination before it can be deemed a digital cavity, in the same sense as the word is used in man. There is certainly no room for any *hippocampus minor* therein; nor does Burmeister affirm the existence of this organ. The repudiation by Vrolik, of the presence of the *hippocampus minor* in a species of *Stenops* is well known, and tends to neutralize the allegation in the Royal Society's *Proceedings* (1861, No. 45), of the presence of both *posterior cornu* and *hippocampus minor* in *Stenops Bengalensis*.

The writer of the paper in the Zoological Society's *Proceedings*, March 11, 1862, on the "Brain of the Javan Loris" (*Stenops javanicus*), admits "that with all the care taken, it was not possible to ascertain satisfactorily the extent to which the ventricular cavity passed into the posterior lobe;" but the writer goes on to explain away this admission by alleging "this is a circumstance of very little importance;" and affirms the existence of "the portion of grey matter homologous to that forming the so-called *hippocampus minor* in the human subject" in the brain of the Javan Loris.

In the demonstration of the anatomy of the brain of the Aye-aye (*Cheiromys Madagascariensis*), made by Prof. Owen before the Zoological Society last winter, it was clearly shown that there was no hinder horn, nor *hippocampus minor*, the cerebellum, as in *Stenops*, extending far behind, and uncovered by the cerebrum. In *Cheiromys* the middle horn is, indeed, also a descending one; it has no backward prolongation, but sinks down directly into the cerebral mass. In this, the lowest quadrumane, the one which has most rodent analogy, no evidence of the disputed organs can be found.

Permit me to enter an humble protest against the assertion, that "the unanimous voice of anatomists during the last few years has settled the question so thoroughly and satisfactorily" in favour of Prof. Huxley's opinions. Those zoologists *qui volunt id verum esse quod credunt, nolunt id credere quod verum est*, may be on his side; but Prof. Rolleston's dictum, "there may be a state of doubt which is surer than certainty, an ignorance which is wiser than knowledge," more accurately represents the feeling of those who have diligently weighed the evidence.

In the above remarks, in which I may appear to express myself more warmly than the subject may require, my excuse for any breaches of "the rules of etiquette or decorous reticence" will be found in the words of Prof. Huxley, at the inception of the controversy:—"In the interests of science it is well that the real or apparent opposition of competent inquirers, as to matters of fact, should be put an end to, as soon as possible, by the refutation of one or the other."(a) *La physiologie ne sent pas la pitié;* and the march of Biological truth will proceed without reference to individual reputations. I am, &c.

A Zoologist.

COMMUNICATIONS have been received from—

Dr. E. Bishop; M.D. St. Andrew's; Dr. Cregen; Dr. R. Venables; Dr. Lawrence; Dr. Drysdale; The Metropolitan School of Dental Science; Mr. J. W. Davies; Dr. Hilton Fagge; Z.; Mr. S. C. Noble; Dr. Ramsbotham; Mr. H. Bird; Professor Fergusson; Professor Owen; Mr. Gerrans; Mr. H. Thomson; Harrow; Liverpool; Dr. Edwin Payne; Secretary of the Obstetrical Society; Mr. Dempster; Mr. Vipan; "Hedera Helix;" Dr. Edwin Lee.

(a) "Natural History Review," No. I.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 4, 1862.

BIRTHS.

Births of Boys, 832; Girls, 855; Total, 1687.
Average of 10 corresponding weeks, 1852-61, 1699.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	623	606	1229
Average of the ten years 1852-61	545·2	529·1	1074·3
Average corrected to increased population..	..	..	1132
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	4	17	2	5	4	6
North ..	618,210	2	15	16	6	4	6	8
Central ..	378,058	..	5	18	1	1	12	12
East	571,158	6	20	14	1	2	24	11
South ..	773,175	4	14	23	2	8	11	16
Total.. ..	2,803,989	12	59	88	12	20	58	52

APPOINTMENTS FOR THE WEEK.

October 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

13. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. John Cockle, M.D., "On Aneurismal Tumours, involving the Neck.

14. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Metropolitan Association of Medical Officers of Health, 4 p.m. Meeting.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

17. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

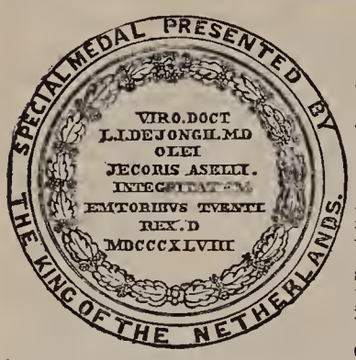
King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—For Strumous Testicle; Lithotomy; Amputation of Foot (Piregoff's); Removal of Epithelial Growth from Cheek; Removal of Tumour from Lip; Plastic Operation on Face.

By Mr. Wood—Radical Cure of Hernia.

Westminster Hospital.—The following Operation will be performed on Tuesday next, at 2 o'clock:—

By Mr. B. Holt—Excision of Elbow-Joint.



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Dr. LANKESTER, F.R.S., late Lecturer on the Practice of Medicine, St. George's School of Medicine:—"I consider that the purity and genuineness of this Oil are secured in its preparation by the personal attention of so good a Chemist and intelligent a Physician as Dr. de Jongh, who has also written the best Medical Treatise on the Oil with which I am acquainted. Hence I deem the Cod-liver Oil sold under his guarantee to be preferable to any other kind as regards genuineness and medicinal efficacy."

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ORIGINAL LECTURES.

LECTURES
ON
DISEASES OF THE EYE.

DELIVERED AT
The Middlesex Hospital,
BY

SOELBERG WELLS, M.R.C.S. Eng., M.D. Edin.
Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital.

STRABISMUS.

LECTURE I.—(*Concluded.*)

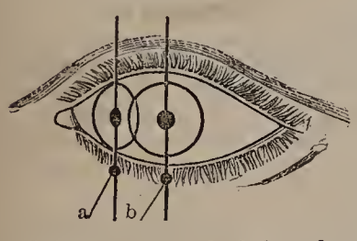
GENTLEMEN,—Let us now pass on to the consideration of the symptoms presented by concomitant squint,—symptoms so well defined and so constant as to distinguish it readily from all other forms of strabismus.

1. The optic axis of one eye being fixed upon an object, that of the other always deviates from the latter at a certain angle and in a certain direction. In convergent squint it deviates to the inner, in divergent squint to the outer, side of the object. In order to determine which is the squinting eye, the patient should be directed to look steadily at an object (a lighted candle or our uplifted forefinger) held in the horizontal median line, at the distance of a few feet. Then, alternately covering each eye with our hand, we note whether the uncovered eye remains steadily fixed upon the object, or has to change its position before it can bring its optic axis to bear upon it. In the former case it is the one generally used for fixation, in the latter it deviates from the object. We may, however, fail to detect the deviation in this manner if it is so very slight as to be almost objectively inappreciable, in which case we must call the diplopia to our aid, for it enables us to detect the most minute deviations of the optic axes. But the concomitant squint is generally very evident.

If we cover the healthy eye with our hand, the other will move in a certain direction in order to fix the object (in convergent squint it will move outwards, in divergent inwards), the healthy, covered eye making at the same time an *associated* movement (which has been designated the *secondary* deviation), becoming now, in fact, the squinting eye.

The following is the most practical way of measuring the degree of the squint:—The patient being directed to look at an object at six to eight feet distance, we mark, upon the lower lid of the squinting eye, the spot which would correspond to an imaginary vertical line drawn through the centre of the pupil of this eye. The healthy eye being then covered, the other is made to fix the object; and the spot which now corresponds to the vertical diameter of the pupil is again marked upon the lower lid, the distance between these two marks giving us the size of the squint measured in lines. Fig. 1 illustrates this: a, the mark corresponding to the centre of the pupil when the eye is squinting; b, the mark corresponding to the centre of the pupil when the eye is fixed upon the object; distance between a and b gives the size of the squint, which would in this case = about $2\frac{3}{4}$ lines.

FIG. 1.



We sometimes find that there is not only a lateral deviation, but also a slight difference in the height of the two eyes. You will remember a case of convergent strabismus which I showed to you the other day, in which there was also a slight deviation upwards, and my pointing out to you the importance of determining whether this was due to the upper fibres of the internal rectus being more contracted than the middle and lower fibres, or whether it was owing to the superior rectus being also affected, for upon this the question of operating upon more than one muscle would turn.

The associated movement, which the healthy eye makes when it is covered, and the squinting eye fixes the object, will enable us to determine this, for if the internal rectus is alone at fault, the associated movement of the healthy eye will be only lateral, without any deviation in height; whereas, if the superior rectus is also implicated, the healthy eye will make not only an inward but also a downward movement, corresponding to the outward and downward movement of the other eye. In the former case we shall almost always succeed in curing the inward and slightly upward deviation by a tenotomy of the internal rectus alone, more particularly if we freely divide the upper portion of the tendon. In the latter case we shall have not only to operate upon the internal, but also upon the superior rectus.

2. The secondary deviation equals the primary. The deviation of the squinting eye is termed the *primary deviation:* if the healthy eye be covered, the other will move in a certain direction to adjust its optic axis upon the object, which movement is accompanied by an *associated* movement of the healthy, covered eye, which now becomes the squinting one, and this is called the *secondary deviation.* In all cases of concomitant squint the *secondary deviation equals the primary;* and this enables us at once to distinguish this affection from the squint which is due to some paralytic affection. Let us suppose that the left eye squints inwards to the extent of 2 lines. Now, if the right eye is covered, the left will have to move outwards 2 lines in order to fix the object, the covered eye making an associated movement inwards, and the latter will, in concomitant squint, exactly equal the primary deviation in extent, *i.e.*, 2 lines. In the extreme lateral portion of the field of vision, the secondary deviation, however, slightly exceeds the primary. In paralytic squint it is different, for there the *secondary deviation invariably exceeds the primary;* sometimes, indeed, very considerably. Let us assume that there is a partial paralysis of the external rectus muscle of the left eye, so that when an object is moved to the left side of the patient, a convergent squint (say of 1 line) will arise at a certain point, owing to the inability of the left eye to follow the object; if we now cover the right eye the left will have to move outwards 1 line in order to adjust its optic axis upon it, the covered eye making a simultaneous associated movement inwards, but not of 1 line, as would be the case in concomitant squint, but of, perhaps, 2 to 3 lines, so that the secondary deviation (2 to 3 lines) will considerably exceed the primary (1 line). The reason of this is easily explained. The external rectus muscle being insufficiently innervated, it will demand a far greater impulse of the will to bring about this movement of 1 line, than would be required if its innervation was normal. This increased impulse is, however, also brought to bear upon the associated, healthy, internal rectus of the right eye, and thus produces a greater amount of movement in the latter.

3. The extent of movement of the two eyes is quite normal and quite equal, the arc of mobility being exactly of the same extent in both eyes, and only a little shifted towards the side of the shortened muscle. Thus, in a convergent squint, it is shifted slightly inwards, but what is gained in this direction is lost in the movement outwards. This increase in the mobility towards the side of the shortened muscle is, however, very slight when compared with the degree of the squint. On account of this complete accompaniment of the squinting in all the movements of the healthy eye, it has been called strabismus concomitans. If we hold an object in the horizontal median line, and then move it to the right and left, the optic axis of the squinting eye will exactly accompany that of the healthy eye in all its movements, deviating from it, however, always at the same angle, except, indeed, at the extreme portions of the field of vision.

In order to note accurately, and to keep an easy and diagrammatic record of the extreme lateral movements of each eye inwards and outwards, Mr. Bowman has for some time adopted the following simple and practical method:—He notes the extreme range *inwards*, by marking the *position of the pupil* on extreme inversion, *compared with that of the lower punctum;* and the extreme range *outwards*, by marking the position of the outer edge of the *cornea*, on extreme eversion, *compared with that of the external canthus.*

The following figures illustrate this method, the patient being supposed to face the observer.

Fig. 2 shows R, the right outer canthus, and L the left outer canthus, crossed by a vertical line a, or b, or c, which indicates by its position the extent to which the outer edge of the cornea approaches the canthus, or even goes beyond it, on *extreme eversion* of the eye. And Fig. 3, in like manner,

exhibits for R the right eye, and for L the left eye, the position which the pupil, O, takes with regard to the punctum, •, when the eye is moved *inwards* to the extreme degree.

Fig. 2.

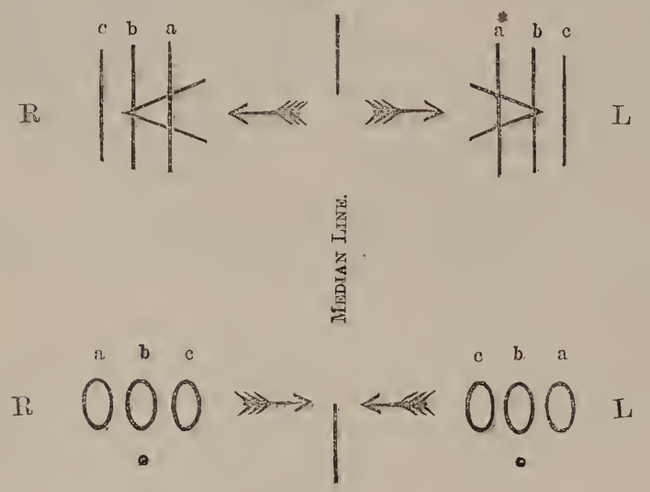


Fig. 3.

It may fail to reach it, as at a a, or be over it, as at b b, or pass more or less inwards beyond it, as at c c.

In taking the relation of the pupil to the punctum, if the eye is much inverted, the observer should, as it were, face the pupil in its inverted position, otherwise the interval between it and the punctum is not so correctly estimated. Or the parts may be viewed from above, the Surgeon raising the upper lid, and standing behind the patient, who sits on a chair. But a little practice soon renders this unnecessary.

If the outer edge of the cornea, in extreme eversion, passes under cover of the canthus, its actual position can be readily enough marked by noting how much of the iris is covered from view.

A diagrammatic record should be kept of the range of mobility, in order that we may hereafter be able to estimate the effect of the operation upon the lateral movements of the eye.

The accommodative movements of the eye should also be accurately tested, for they are extremely important, as will be shown hereafter, in determining the mode and extent of the operation. On bringing the object nearer and nearer to the eyes, the optic axis of the healthy eye will remain fixed upon it, converging the more the nearer the object is approximated: the position of the squinting eye (convergent strabismus) may, at the same time, undergo the following changes:—

1. It may retain its original position, sustaining only a few oscillating, irregular, lateral movements.

2. It may remain completely stationary, so that the angle of squinting will diminish the more the nearer the object is brought, until, at a certain point (if the squint be not excessive), its optic axis will also be fixed upon the object, and there will no longer be any squint. If, however, the object is approximated still closer, a divergent squint will arise; for, whilst the healthy eye converges still more, the other retains its position, and now deviates (passively) outwards.

3. It retains its position up to a certain point, and then, as the healthy eye moves inwards to follow the object, it makes an *associated* movement outwards.

4. It deviates suddenly and spasmodically outwards when the object is approximated very closely.

Concomitant squint may be either monolateral or alternating. In the former case, the squint is always confined (when both eyes are open) to one and the same eye. If the healthy eye be covered, the other will move in order to fix the object, but directly the former is again uncovered, it will at once resume its squinting position. In alternating squint it is different, sometimes the one eye deviates, sometimes the other. If we, in this case, cover the healthy eye, the other will make a movement in order to adjust its optic axis upon the object, and will retain its position when we uncover the sound eye. The latter has now, in fact, become the squinting one. If we, then, cover the other, the squint will alternate again. It appears almost, or quite, immaterial to the patient which eye he uses. In such cases there is generally no difference in the sight of the two eyes; whereas in monolateral strabismus the vision of the squinting eye is almost always affected, on account of the suppression of the double image—sometimes, indeed, very considerably.

The active negation of the double image by the brain soon leads to a more or less considerable deterioration in the sight of this eye. We occasionally find, however, that the sight of the squinting eye remains good, although the strabismus is not alternating. Indeed, I have seen cases (exceptional I grant) in which the patients could read the very finest print with it, never having, as far as they could remember, suffered from diplopia. Here binocular vision had most likely never existed, and hence the absence of diplopia and the call for the suppression of the double image.

It was at one time proposed to cure squint by closing the healthy eye, and thus necessitating the fixation of the other upon the object. You will, however, at once detect the mistake of such treatment, for the squint is merely transferred to the excluded eye; for just the same thing occurs, as when we place our hand over the healthy eye in order to estimate the primary and secondary deviation. The vision of the squinting eye is exercised, but the disease remains uncured. But this proceeding often proves very valuable in practice, for by it we may render a monolateral squint alternating, and preserve the sight of both eyes. If, for instance, a child squints (seeing perfectly with both eyes), and the operation has to be postponed for some reason, we may preserve the sight of the squinting eye by the periodical exclusion of the other. In this way we may not only preserve the alternating character of the strabismus, and the sight of both eyes, but we may even change a monolateral into an alternating squint.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

The following eleven cases of breech presentation occurred in my practice during the five years embraced between January 1, 1840, and the last day of December, 1844; besides the two cases with unavoidable hæmorrhage, which I have already reported:—

Lingering Breech Case, Small Pelvis.

Case 141.—On August 24, 1840, at 10 p.m., I was requested by the Apothecary of the Eastern Dispensary to visit one of the patients, Mrs. H., Broad-street, Ratcliffe. I had delivered her twice by craniotomy, and this was her third child. On each of the former occasions the funis prolapsed, and had ceased to pulsate before I arrived. I found that the membranes broke about noon, the breech was at the pelvic brim, the face of the child being directed towards the mother's spine; the pelvis was small throughout, especially at the brim, which certainly did not measure more than three inches in its conjugate diameter. The pains had been very strong ever since the waters escaped. I passed a blunt hook over one thigh, and extracted the breech without much difficulty; but both the shoulders and the head gave me considerable trouble. By introducing, however, the first finger of the left hand into the mouth, and depressing the jaw, taking care at the same time that the head was situated with its long diameter in the direction of the long diameter of the brim, I brought it through, so as to occupy the pelvis; then by directing the face backwards, the nape of the neck impinged under the symphysis pubis, and, the perineum slipping over the face and forehead, the birth was completed. The child was born with suspended animation; but it was restored. The placenta passed soon, and both did well.

Breech Presentation.

Case 142.—On December 1, 1840, at 10 a.m., I was sent for by a Medical friend to Mrs. D., Vauxhall, the mother of a large family. The membranes broke at 5 a.m. The breech was at the pelvic brim, with the face looking backward. The pains had been trifling throughout. I waited two hours, and as I could not observe the least progress, I passed a blunt hook over one of the thighs, and extracted the breech without difficulty, nor did the shoulders or head give me any. The child was large and living; the placenta passed readily, and she recovered well.

Feet Presentation.

Case 143.—On April 22, 1842, at 11 a.m., I was sent for to Mrs. W., Spitalfields, whom I was engaged to attend in labour of her second child. On May 31, 1840, this lady, under my superintendence, had expelled at least three quarts of uterine hydatids (so-called), with much flooding. I found she had been in pain all night, and the membranes had broken about half an hour. The os uteri was dilated to the size of a crown piece, the pains were strong and frequent, and both feet were at the pelvic brim, the face of the fœtus looking backwards. I brought the feet down at once, and delivered the child easily in less than fifteen minutes alive. Very soon a copious gush of blood took place, which induced me to introduce my hand into the uterus for the purpose of removing the placenta. I found it strongly adherent throughout nearly its whole extent, and I had much difficulty in separating it. I removed the whole, though it was much broken. The lady recovered without a bad symptom; but on the fifth day a copious puriform discharge flowed from the vagina, together with a number of small filamentous shreds of placental substances, which lasted nearly a week. I have attended her in labour four or five times since the above date.

N.B.—Whenever I have removed a strongly-adherent placenta much broken, and have had a suspicion that any small portion or filaments have been left behind, which it is sometimes impossible to avoid, I have always hailed with satisfaction any large quantity of puriform discharge coming on within a week after delivery; because I have almost universally found that with it the portions of placenta left behind have come away, and thus the danger of the absorption of putrid matter has been obviated. It would seem as though this secretion from the surface separated the still adherent pieces, and carried them away as it flowed externally. The injection of warm water into the cavity of the uterus itself is most beneficial in such a case.

Hand, Feet, and Funis in the Pelvis.

Case 144.—On November 15, 1842, I was sent for by a Professional friend to Mrs. R., Broad-street, Ratcliffe, the mother of a family. The membranes had broken five hours, and the pains had been but slight ever since. The os uteri was well dilated; and there were a hand and one foot, as well as a fold of the funis, not pulsating, down in the vagina; the other foot also was at the pelvic brim; neither head nor breech could be felt. I had not the least difficulty in bringing down the breech by traction at the foot, and the whole body followed rapidly. The placenta soon passed, and the patient did well.

Lingering Breech Case.

Case 145.—On July 25, 1843, at 1 30 a.m., I was sent for by a Medical friend to Mrs. B., Bartholomew-close, aged 34, in labour of her first child. The membranes broke seventy-two hours before, the os uteri being at that time not at all dilated. The pains had been feeble throughout; nevertheless she was considerably exhausted. The os uteri was almost entirely dilated. It had opened very slowly. The breech was at the brim of the pelvis, which was narrower in its conjugate diameter than it ought to have been. It was so high that I could not pass a finger round the groin without introducing my whole hand into the vagina; however, guided by my finger, I carried a blunt hook over the bend of the thigh, and in twenty minutes extracted the breech; the head gave me some trouble. The placenta was speedily expelled; and she did well. Putrefaction was commencing on the child's body.

Premature Labour—Breech Presentation.

Case 146.—On August 29, 1843, at 12 at night, I was sent for to Mrs. W., Spitalfields, the subject of Case 143. On the morning of the 27th she was just going on board a Gravesend packet for a day's excursion, being about six and a-half months advanced in pregnancy, when she felt a sudden gush of water, and very wisely at once returned home. Since that time there had been a constant colourless discharge. The uterus began to act on the evening of the 29th; and when I arrived I found the os uteri almost entirely dilated, the pains strong and frequent, and the breech at the pelvic brim. The child was soon expelled, alive, and it lived for four days; swallowed, though it would not suck, and passed both fæces and urine. As the placenta did not descend, and some hæmorrhage occurred, I passed my hand into the uterus and removed it. It was slightly adherent; not nearly so strong as in the former case. She recovered very well.

Feet Presentation, at Eight Months.

Case 147.—On December 27, 1843, at 12.30 night, I was sent for to Mrs. S., Newington Butts. She had only borne one child at full time, and that was in her first pregnancy; since then she had miscarried eight or nine times at different periods of gestation; and this time she had kept upon the sofa almost the whole period, at my recommendation. She had been in pain since 6 p.m. I found the os uteri quite dilated, the membranes pressing on the perineum and partially protruding, and both feet in the vagina. I ruptured the membranes at once, and brought the feet down. Continuing my tractile efforts, the trunk passed easily; but I had some difficulty with the head. The child was born with animation suspended; and while I was inflating the lungs, an immense gush of blood suddenly took place, and she fainted. By applying pressure to the uterus, however, externally, by means of the hand, the placenta was thrown off, the uterus contracted, and the bleeding ceased. I stayed with her for three hours, till the child was quite restored; and both it and the mother recovered well.

Lingering Breech Case.

Case 148.—On March 26, 1844, at 1.30 p.m., I was sent for by a Medical friend to Mrs. H., top of Brixton-hill, in labour of her first child. The membranes broke sixty hours before, and the labour went on very slowly; but by 6 p.m. on the previous evening the os uteri was entirely dilated. I found the right buttock much in advance of the left, low down in the pelvis, pressing on, and somewhat distending, the perineum, where it had remained for some hours; the face was looking towards the spine. The perineum was excessively rigid. I at once passed a blunt hook over the bend of the right thigh, and extracted the breech in about half an hour; not the slightest laceration took place. The body and shoulders passed without difficulty, but the head gave me some trouble; and as I feared the perineum might be torn, and as putrefaction was commencing in the child's body, I did not hesitate to perforate the skull behind the left ear; on the evacuation of two or three tablespoonfuls of brain the head escaped easily. The placenta was soon expelled without hæmorrhage, although the uterus had been throughout the delivery perfectly passive, as though exhausted. The child was large, and the operation occupied three-quarters of an hour. Next day, as she had not passed any urine, I introduced the catheter; after that the bladder acted naturally, and she made a rapid recovery. I subsequently attended this lady with four or five children.

Breech Presentation, Premature.

Case 149.—On April 19, 1844, at noon, I was sent for to Mrs. W., Bishopsgate, the mother of a family, seven and a-half months advanced in pregnancy. A fortnight before she had suffered a severe mental shock, since which time she had not felt the infant move. She was seized with labour-pains early in the morning. I found the os uteri quite dilated, breech presenting, the face looking backwards. I immediately ruptured the membranes, and the child was expelled in fifteen minutes; it was quite putrid. The placenta passed directly after the child, and she did well.

Lingering Breech Presentation.

Case 150.—On August 27, 1844, at 8 a.m., I was sent for to Mrs. E., Mark-lane, aged 40, in her first pregnancy. She was suffering much from pain, which was constant, not at all like labour-pain, and fever. For two days there had been an uninterrupted discharge of limpid water; but she declared positively that she was not pregnant. The uterus was large, hard, and very tender, evidently containing a child near, if not at, the full period. The bladder was distended, which induced me to draw off the urine, and I ordered twelve leeches to the abdomen. Labour-pains came on the next day at twelve o'clock; I was not at home, and a Medical friend went to her in my stead. At five o'clock I found the breech low in the pelvis, the abdomen of the child looking forwards. The pelvis was narrow throughout, and there was great rigidity of the soft structures. I passed a blunt hook over one thigh, and extracted the breech and trunk with some difficulty; but the head would by no means pass the brim, which did not measure more than two and three-quarter inches in its conjugate diameter. Therefore, and as the child was putrid, I perforated the skull behind the right ear, and extracted after the

evacuation of a portion of the brain. The placenta was soon expelled, and she recovered well. Since that time she was delivered of a child at full time by one of my friends, by craniotomy; had premature labour brought on by another, that child being alive; and, on April 16, 1851, I was sent for to her by a third, when she was in labour at full time, the feet presenting. I was on this occasion also obliged to perforate the head, after having delivered the body, in consequence of the contracted brim.

Breech Case, Premature.

Case 151.—On December 12, 1844, at 1 p.m., I was sent for to Mrs. M., near Russell-square, who had come to London to be confined, under my care. She was six months advanced in her second pregnancy, having miscarried in her first, four years previously. She had taken a long walk on the 7th, which had much fatigued her, and, on the 8th, had some sanguineous discharge, which had lasted ever since. When I saw her, labour-pains were just coming on. She was in lodgings, but had taken a house close by, to which I immediately removed her in my carriage, and I remained with her. On examining, I found the os uteri dilated to the size of a shilling, the membranes broken, and the breech presenting. The pains increased in strength and frequency, and the child, putrid, was born at 7 p.m. The placenta soon followed, and she recovered well.

N.B.—From practical observation I am persuaded that both breech and transverse presentations are comparatively more frequent when the labour is premature; and that the same remark applies to those cases where the pelvis is contracted in its conjugate diameter at the brim.

8, Portman-square.

(To be continued.)

CASE OF

POISONING BY CHLORIDE OF ZINC.

By JOHN WARD COUSINS, M.D. Lond., F.R.C.S.
Surgeon to Royal Portsmouth Hospital.

About a quarter before 6 a.m., on August 22, 1862, I was called to a lady, who had just taken some of Sir W. Burnett's disinfecting fluid. She had been an invalid for several months, labouring under melancholia, associated with mucous irritation and debility. I saw her about ten minutes after the poison had been swallowed. She was lying on her back, suffering intense abdominal pain, constriction of the throat, and nausea. There were no stains about the lips or mouth; her face was pale; pulse very feeble and rapid; extremities cold. She was quite aware of her position, and said, "I have taken it in despair." Eggs and diluent drinks were administered directly. Free vomiting followed in two or three minutes, the ejected matters consisting of a milky-white fluid, mixed with mucus and portions of egg. Enemata of beef-tea and brandy were ordered, containing a few drops of tincture of opium. Hot fomentations were applied to the extremities, and sinapisms to the stomach.

For some time her sufferings were relieved, and she appeared to rally. About 11 a.m. she became very restless, raised herself in bed, and complained of giddiness and loss of sight. A few minutes after, her countenance grew livid, and she sank into a state of complete insensibility and collapse. She died at 1 p.m., seven hours and a-half after taking the poison.

No examination could be obtained.

Remarks.—The quantity of the solution swallowed was nearly a wineglassful, or about two fluid ounces. Dr. Taylor mentions a case in which a larger dose than this was taken, and the patient recovered.(a) In this case, the previous depression and deranged condition of the system must have considerably diminished the chance of recovery. The rapid occurrence of head symptoms, followed by fatal coma, no doubt was partly due to the specific effect of the chloride of zinc upon the nervous system after absorption.

(a) Three fluid ounces.

CASE OF

LARGE NASAL POLYPOID GROWTH.

By SAMUEL C. NOBLE, M.R.C.S. Eng.

Thinking that an account of the following remarkable case of large nasal polypoid growth might prove of some interest to the Profession, I am induced to publish it, more particularly as I have been supplied by Mr. Hogg, artist, of Kendal, with two very admirable and correct photographic representations,—one showing an anterior and the other a lateral view of the growth,—which will serve to illustrate its extraordinary character more clearly, perhaps, than any written account.

Herbert D., aged 20, first came under my care in the early part of the year 1859. The following is the history of the case, so far as it could be obtained:—In January, 1857, while in the act of sliding, he fell on his face, and, as he supposes, broke his nose; from this time, and for about four months after, he could, by squeezing the upper part of the nose, cause clotted blood to flow from his nostrils. About four months after the fall, he first found a soft substance, the size of a small nut, growing from the upper part of the right nostril, from which time no further clots were passed, on account of the passage being blocked up by the growth within. Respiration through that nostril was impeded, but there was no mucous discharge. In the course of a week or two he observed that the right side of his nose began to bulge outwards, and this continued increasing very rapidly for two months, by which time the front and left side of the nose, as well as the forehead, manifested signs of protrusion; both nostrils also became blocked up by the growth of the substance within. From this time the enlargement of the forehead and nose continued, but less rapidly than before, and at the early part of the year 1858 he was sent to the Royal Infirmary at Liverpool, where he was under Mr. Long's care for a fortnight. No operative procedure was attempted or thought advisable, on account of the immense size to which the growth had by that time attained. In August of the same year, a swelling, the size of a pigeon's egg, formed on the inner angle of the right eye, which burst, and discharged thick, bloody matter; the flow of tears down the nasal ducts became interfered with, and the growth increased in all directions, causing greater expansion of the nose and forehead. After this, small gatherings frequently formed on the inner angle of the right eye, which discharged pus and a jelly-like fluid.

When first seen by me, the whole of the nose, both anteriorly and laterally, as well as the centre of the brow, were enlarged, and protruded to an extraordinary extent. The right eye was considerably pushed outwards in consequence of the polyp having encroached upon the inner wall of the orbit; the left eye also was similarly affected, but to a less degree. The tears flowed down the cheeks on account of the nasal ducts being obstructed; and there were two or three small openings in the situation of the inner angle of the right eye, which discharged nearly an ounce of gelatinous matter, streaked with blood, daily; there was also bloody discharge from the nostrils. On examining the interior of the nostrils,

they were found to be completely blocked up with a substance of a firm, gristly nature.

For two years the expansion gradually increased in magnitude, there being daily bloody discharge from the nostrils, and gelatinous discharge from the openings on the inner angle of the eye. About eighteen months ago the gelatinous discharge began to diminish in quantity, and in six months quite ceased, the openings becoming closed, and covered by expansion of bone. Since this the growth has continued making progress, until, at the present time, the measurements are as follows, viz. :—

1st. In a transverse direction :—Across the protrusion on frontal bone, 4½ inches; from inner angle of right eye to inner angle of left eye, 5 inches; from protrusion below right eye to left side of nose, 6¼ inches; across lower end of nose, 3½ inches.

2nd. In a vertical direction :—From the protrusion on frontal bone to the end of the nose, 6½ inches.

The vision of the right eye is rather obscured; when desirous of looking at any object, he can see it more distinctly by keeping one eye closed. His general health has always been, and still is, very good, and his spirits are high; he works daily in a paper-mill He experiences no pain except about once a year, when he suffers for a week or ten days from continued pain in the frontal and occipital regions; this is generally relieved by saline aperients. Epistaxis, which occurs about once a week, affords him relief; only on one occasion has the bleeding been to excess, and it was then arrested by his using pressure with his fingers on the polyp within the nostrils.

The case is remarkable as showing the size to which a polypoid growth may attain. Hitherto there has been an absence of cerebral symptoms, probably on account of the pressure exercised by the polyp being upon the outer plate of the bones forming the air cells : as, however, the disease progresses, and the inner plates become expanded, pressure on the brain may follow, ending in death.

Kendal.

CASE OF

RUPTURE OF THE LEFT PULMONARY ARTERY WITHIN THE PERICARDIUM.

Reported by ALEXANDER MACKAY, Esq.,
Assistant Staff-Surgeon.

The following very interesting case occurred towards the close of the year 1859, the subject of which was a private of the 1st Bombay Fusiliers (Europeans), which regiment was then stationed at Kurrachee, in Scinde, having lately arrived down country from the Punjaub, much shattered by severe service during the late Indian mutiny :—

Private Matthew M., 1st B. F., aged 34 years, having served thirteen years in India, a man of temperate habits, and of large muscular development, was admitted into Hospital, at Kurrachee, November 18, 1859, complaining of violent attacks of spasmodic coughing, which attacks came on at intervals; was otherwise in perfect health. Surface of body cool; expectoration white and frothy; pulse 70 and equable. On auscultation the respiratory murmur was heard slightly, mixed with mucous rales; heart's sounds natural. ℞ mist. camphoræ, ʒxij; antim. tart., gr. ij; ʒi of the mixture to be taken every third hour. Turpentine fomentations were applied to the chest until well-marked counter-irritation resulted.

19th.—Coughed frequently during the night; respiration free; expectoration copious, white, and frothy. On auscultation faint mucous rales were heard mixed with the respiratory murmur. Continue mixture as before, with fomentation.

21st.—Has had a return of the spasmodic coughing; respiration somewhat accelerated; pulse 75; heart's sounds natural; respiratory murmur normal. ℞ mist. camphoræ, ʒviij; tinct. opii. Co. ʒij; ʒij three times daily. Continue counter-irritation.

22nd.—Respiration accelerated; pulse 80, and soft; heart's sounds natural; respiratory murmur clear; countenance flushed; complains of a sensation of constriction across his chest. Continue mixture as before; twelve leeches to be applied to chest.

23rd.—Respiration easy; pulse 70; chest feels much freer, and considerably relieved by the leeching. Stop fomentations; continue mixture.

24th.—Felt considerably better; respiration much more free; cough less troublesome; expectoration more copious and viscid; respiratory murmur clear. Continue mixture.

25th.—Was much improved; all cough had nearly disappeared; appetite good; pulse 70; and continued to improve generally until the 29th, when he was discharged from the Hospital convalescent; to attend Hospital daily.

30th.—Attended Hospital this morning; had quite recovered from all cough. He, however, complained of a feeling of weight and uneasiness about his chest, but, on stethoscopic examination, nothing abnormal could be discovered. At nine o'clock the same morning, whilst seated at breakfast, he was seized suddenly with faintness, and, on being conveyed to his bed, instantly expired.

Post-mortem Examination Five Hours after Death.—On opening the thorax the lungs, heart, and pleuræ were found in their normal position. The pericardium, which, previous to being opened, appeared very tense, when opened, contained about six ounces of serum. On closer examination, the heart was found to be surrounded by a bloody clot, which, when removed, weighed about eleven ounces. The auricles and ventricles of the heart were healthy. On an incision being made along the course of the aorta, it was found covered throughout the entire of its inner surface with a thin, fatty deposit. The left pulmonary artery, on being examined, a small transverse rent was discovered on its posterior aspect to the extent of a quarter of an inch, and situated between the pericardium and the bifurcation of the trunk of the pulmonary artery. When the interior of the artery was exposed, the rent was found to be encircled by a small chronic ulcer about the size of a sixpence. The right pulmonary artery was healthy on its internal and external surfaces. The brain, lungs, liver, kidneys, and intestines were also healthy.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

KING'S COLLEGE HOSPITAL.

OVARIOTOMY—BOTH OVARIES REMOVED—DEATH IN THE THIRD WEEK.

(Under the care of Mr. FERGUSSON).

[Reported by Mr. CLARKE, House-Surgeon.]

The following case of ovariotomy is of additional interest, because both ovaries were found diseased, and both were removed. It will be observed that Mr. Fergusson elected to adopt the old practice of leaving the stumps of the pedicles in the abdominal cavity. The cause of death was diffuse peritonitis and post peritoneal abscess :—

Mary E., admitted into King's College Hospital July 8, 1862, aged 19, unmarried, living in a village in Essex, where she was employed in weaving. She has always had good health, but she looks pale, and at least five years older than she is. She has only menstruated twice.

In November, 1861, she began first to suffer pain in the right iliac region, and soon afterwards she noticed a swelling in that situation, which has gone on gradually increasing in size. At the same time, the pain which had existed at first ceased. About the end of November she found it necessary to give up work; and by Christmas the swelling had become less. About this time her health began to fail, she lost her appetite, grew weak, and fell into low spirits. However, she again resumed her work, and continued at it until about March, when, on account of the increasing size of the tumour, she was again obliged to give it up. She now began to feel pain in the left side. From this time until the present the swelling has gone on increasing in size. She has never been tapped, nor have any other remedies been employed.

Her abdomen is greatly distended, so much so that she looks like a woman at the full time of pregnancy. The swelling is almost symmetrical. On the left side it is rather more prominent than on the right, in some places; in others it is soft and fluctuating, which leads to the supposition that it is composed of several cysts, with thick, solid partitions between them. The abdomen measures thirty-five inches in circumference. She is pale and thin, but complains of no pain. Her respiration is easy. There is no dropsy of the legs. She was ordered fifteen drops of muriated tincture of iron three times a-day.

August 7.—The tumour, since her admission, has increased in size considerably. The circumference of the abdomen is now forty-three inches and a-half. The patient is cheerful. Appetite fair; sleeps well; and her respiration is now getting embarrassed by the upward pressure of the tumour, and she seems thinner than she was.

Operation.—9th.—She was taken to the operating-theatre, and placed under the influence of chloroform.

Mr. Fergusson commenced the operation by making an incision about two inches in length, in the middle line, above the umbilicus, from which a quantity of serous fluid escaped. The operator then passed his fingers into the opening, and ascertained that there were no adhesions as far as his fingers would reach. The incision was now cautiously lengthened, both upwards and downwards, by means of a curved, probe-pointed bistoury, making it about six or seven inches in length, and again a large quantity of serous fluid escaped. Mr. Fergusson next passed his hand into the abdominal cavity, and found that there were no adhesions whatever.

One of the cysts composing the tumour was then punctured with a large trocar, but only a little fluid escaped, and the same occurred when punctures were made in other situations.

The contents of the cysts appeared to be of a gelatinous consistence, and the size of the mass was but slightly reduced at these attempts to tap it. Mr. Fergusson now turned out the tumour from the abdomen, and had it supported by assistants. By this means the pedicle was exposed, and it was found to be comparatively small, being only about the thickness of three fingers, and about four inches in length.

Through the middle of the pedicle the operator passed a long straight needle set in a handle, and then arming it with a stout double silver wire, he withdrew it, and endeavoured to strangulate the pedicle in two lateral halves, but finding the wire did not answer the purpose effectually, he removed it, and repeated the process with whip-cord. A second ligature was then passed entirely around the pedicle immediately below the former ones, and drawn as tight as possible. The tumour was then cut off close to the ligatures.

A second tumour, much smaller than the first, was now observed lying in the right iliac fossa. It consisted of a single cyst of a bluish colour, and full of fluid, connected with the other ovary. It was attached by a pedicle two or three inches in length, and about the thickness of the thumb. This was ligatured in two halves in the same way as the other, and the tumour cut off. The larger tumour weighed fifteen and three-quarter pounds, the smaller one exactly two pounds. The cavity of the abdomen was then carefully sponged, so as to remove the fluid which had collected there. The edges of the wound were then brought together, and united by silk sutures, the pedicle being left in the abdominal cavity, and the ligatures brought out at the lower end of the wound. Pads of lint were applied along the edges of the incision, and a bandage around the belly.

On being removed to her bed, the patient's pulse was 140. She complained of slight smarting pain in the seat of the incision. Ordered half a grain of morphia, and brandy was given at intervals. 9 p.m.—Pulse 150. She throws up the brandy and all that is given her. She is ordered to suck ice constantly, and to take another dose of the morphia.

August 10.—Pulse 130. She slept tolerably well last night; complains of no pain; tongue clean; bowels not been opened; seems very thirsty; passes her water without difficulty. Since the operation she has been taking half an ounce of brandy every hour. Her diet consists chiefly of beef-tea, bread, and eggs, with lemonade to allay thirst. Vomiting still continues at intervals. In the evening she was ordered half a grain of morphia, the dose to be repeated in the morning.

11th.—Passed a comfortable night; pulse 120. Ordered twenty drops of tincture of opium every three hours. She continues very thirsty, and, as she craved for beer, she was allowed to have a glass in the evening. The allowance of brandy was reduced to ten ounces in twenty-four hours.

12th.—Pulse 136; bowels have not acted since the operation. She complains of a little smarting pain in the wound, but she can bear moderate pressure on the abdomen. Tongue rather brown and dry. In the afternoon Mr. Fergusson took out the sutures.

13th.—Pulse 126. She has had a very comfortable night; she is still sick occasionally; her lips are rather dry, and her tongue slightly brown at the edges. There is a thin discharge from the lower end of the wound. Ordered a draught containing three minims of hydrocyanic acid and twenty drops of tincture of opium every three hours. The sickness is not attended with any pain. She continues to suck ice constantly.

14th.—Pulse 130. Last night her bowels were opened for the first time since the operation. There is no pain on pressing the abdomen. The greater part of the wound has healed by the "first intention." Sickness continues; she vomits three or four times a-day. She sucks ice almost constantly. Tongue dry and rather brown. In the afternoon her bowels were slightly moved again.

15th.—The bowels have been moved during the night; indeed there is a tendency to diarrhœa. The half-pint of beer which she was ordered every day is ordered to be discontinued. Occasional vomiting. Tongue brown and dry. In the afternoon her bowels acted again; she was then ordered a draught containing ten minims of tincture of krameria and one ounce of decoction of hæmatoxylum after every liquid stool. Some apthous spots have appeared on the tongue.

16th.—Bowels not been opened since yesterday afternoon. Tongue still brown. Complains of a little pain in the abdomen. There is no discharge from the wound. Pulse 130. She seems thinner and weaker than she was two days ago. Her legs and feet are rather œdematous. The wound dressed as before; and her medicine was changed for a draught containing twenty drops of tincture of opium, one grain of quinine, and five drops of dilute sulphuric acid, three times a day. An enema was also ordered—five grains of quinine to be mixed with four ounces of beef-tea—to be repeated every two hours. There are more apthous spots on the lips and tongue.

17th.—Pulse 138. Her bowels were slightly opened this morning. The injections have all been retained.

18th.—Last night the House-Surgeon was called up, as she seemed to be sinking. Pulse 100, very faint and fluttering. Respiration slow and feeble; skin cold and moist. Stimulants were given, and she improved. In the morning she seemed better.

19th.—Pulse 110. Bowels not been moved since yesterday morning. To-day one of the whip-cord ligatures came away. A quantity of foul discharge was squeezed from the wound.

20th.—The upper part of the wound has quite healed, only an inch of the lower end remaining open. This is dressed three times a day, the discharge being free and offensive.

21st.—The remaining ligatures came away, the discharge has improved in character, the tongue is becoming cleaner, and the apthous spots are disappearing.

23rd.—Pulse 95. There are still some apthous spots on the tongue and lips. She seems to be gaining strength. She complains of no pain. Appetite improving. Sleeps well.

24th.—Last night her bowels were moved twice, with a tendency to diarrhœa. The wound continues to be dressed three times a day. There is a good deal of discharge of a healthy character.

26th.—This morning, at half-past nine, an unfavourable change took place. The House Surgeon was called to her suddenly, and found her in great pain, with an anxious expression of countenance. Her face was of a dull, leaden hue. The surface of the body was cold and clammy. The chest and belly were covered with sudamina. The abdomen was distended and tympanitic. Pulse feeble and fluttering. These symptoms came on quite suddenly. She slept well in the night, and appeared to be in her usual health at 8 o'clock a.m. Stimulants, etc., were given, and everything was done to ward off the symptoms of collapse, but without avail, and she died at 3 o'clock p.m.

Autopsy, made twenty-four hours after death.—The intestines were found matted together and to the walls of the abdomen. The whole length of the intestine was carefully examined, but no perforation was found. The two pedicles were healthy in appearance, as if they were granulating. The small intestine contained a little yellowish food. The large intestine

was found perfectly empty and distended with flatus. The uterus was small, hard, and contracted. In the cellular tissue, at the back of the pelvis, between the rectum and uterus, was a large abscess, which contained about two pints of pus, and which had burst by a small opening, and discharged some of its contents into the peritoneal cavity.

CASES OF DISEASE OF THE CEREBELLUM.

(Continued from page 226.)

GUY'S HOSPITAL.

PHTHISIS—NO DEFINITE PARALYSIS—DEATH IN A CONVULSIVE ATTACK—TUBERCULAR DISEASE OF THE CEREBELLUM.

(Under the care of the late Dr. HUGHES.)

In this case there were, until the convulsions in which the patient died, no symptoms to direct attention to the head. There was no blindness, no sickness, and the only symptom at all suspicious was weakness of the limbs. She was, however, able to walk about until three days before death. We must remember, however, that the disease was not very extensive, and that it only affected one lobe of the cerebellum.

Sarah B., aged 19, admitted under the care of Dr. Hughes, on April 11, 1855. She was then in an early stage of phthisis. She had always been delicate, and was thin and pale. The phthisis advanced until there were signs of a large cavity on the left side. The general debility increased, but the patient was still able to walk about until three days before her death. She said she felt her legs too weak to support her, but there was no appearance of any decided paralysis, nor any other cerebral symptoms. On the morning of the 19th she appeared very low, and lay in an almost unconscious state. At 12 o'clock she had an attack of general convulsions. They continued at intervals until her death at 11 p.m. She was throughout this time profoundly unconscious, and the pupils were widely dilated.

Autopsy.—The membranes and the cerebrum were healthy. There was a slight increase of sub-arachnoid fluid. The septum lucidum was very soft and thin, and tore on the slightest handling. Upon the centre of the inferior surface of the left lobe of the cerebellum was a yellowish patch. On making a section through this it was seen to be a hard strumous deposit made up of two round masses in junction, each about the size of a marble. None was found elsewhere in any part of the brain or membranes. There was ulceration of the vocal cords, and the left lung was almost destroyed, a series of cavities extending from apex to base. Tuberculous deposit in right.

SEVERE HEADACHE — BLINDNESS — CONVULSIONS—DEATH—TUBERCULOUS DISEASE OF THE BRAIN, LUNGS (PHTHISIS), INTESTINES, KIDNEYS, LYMPHATIC GLANDS.

In this case the history is unfortunately imperfect, but there is one interesting symptom—blindness—which is worthy of notice, as in this case the pons medulla oblongata, corpora quadrigemina, and optic nerves were not only apparently healthy to the unaided eye, but they were not found to be altered in structure by the microscope.

Mary Ann F., a married woman, aged 30, was admitted, under the care of Dr. Addison, on May 7, 1856. Her youngest child was two years old. Her mind was so much impaired that she was unable to give any satisfactory account of herself, but the following history was obtained:—

Her health was good until ten months ago, when she was suddenly seized with violent pains in the head, loss of memory, indistinct vision, and had several fits. These have occurred once a fortnight. On her admission, her appearance at once denoted a severe organic disease of the brain. She had a vacant look and stare, complained of headache, loss of vision, etc. Her sphincters appeared paralysed. There was no albumen in the urine. She had some cough.

Mercurial ointment was rubbed in, and the gums became affected.

The chest symptoms became worse, assuming a phthisical character, and thus she died. The only fit she had was one the day before her death.

Autopsy by Dr. Wilks.—Body extremely wasted. A large hard gland on the right side of the neck. All the external parts of the head were healthy. The dura mater appeared healthy. The surface of the brain was healthy. Upon slicing the organ in the usual way, it appeared quite healthy, and no tubercles were found in the membranes; and upon further examination, none of these bodies were discoverable in any part of the organ. Ventricles very much distended by three or four times as much clear serum as usual. The septum lucidum was remarkably thin, and perforated by several holes. This, as well as the fornix and all the central parts of the brain, were almost diffluent, having undergone white softening. By the microscope they presented no well-marked inflammatory or other bodies. The principal disease of the brain was the existence of a large strumous tubercle in the right lobe of the cerebellum. This was round, the size of a billiard-ball, having a diameter a little more than an inch. It was very firm throughout, and presented the appearance usually seen, having a cheesy consistence, a smooth cut surface, and a yellow colour, without any trace of structure. It was situate within the brain substance, but firmly adherent to the dura mater, which lined the cerebellar fossa except at one part, where it was covered in a remarkable manner by an extremely fine layer of cineritious substance. There its sides were of a grey colour, and marked by the lines of the laminæ of the cerebellum, although the sectional view showed that the enveloping cerebral substance was of hardly appreciable thickness. The inner surface, or superior part of the tumour advanced quite into the centre of the cerebellum. The pons Varolii and medulla appeared slightly compressed or flattened on the right side. This, however, was not very manifest, and the microscope failed to discover any change of structure within them. The same negative results were obtained upon examination of the optic nerves and corpora quadrigemina. All these parts, as well as the remainder of the brain, being healthy. The lungs showed the condition found in phthisis, and there were ulcerations in the ileum.

YORK DISPENSARY.

SEVERE HEADACHES—PARALYSIS OF THE ARMS—STRABISMUS—TREMULOUSNESS—DEATH IN A CONVULSIVE ATTACK—TUBERCULAR DISEASE OF THE CEREBELLUM.

(Under the care of Dr. D. H. TUKE.)

The reporter of the following case remarks, that there was a general loss of muscular power, and the tremulousness, which Dr. Carpenter attributes to disease in the cerebellum. The case, however, is far from being a simple one, as the pons Varolii was affected as well as the cerebellum. There was paralysis of the arms; and probably the strabismus was due to paralysis of the sixth nerve. This case cannot, therefore, be adduced either in favour or against the hypothesis of the cerebellum being a centre for muscular co-ordination:—

George G., aged 39, had been ill, more or less, for five years. He was a coachman, and had lived rather freely. He had had all sorts of prescriptions, chiefly directed against rheumatism. For about eight months before his death he endured agonies from pain in the head (principally at the back of it), which was only relieved by anti-periodics, opiates, and a belladonna-and-chloroform liniment. It was during this period that he came under Dr. Tuke's care, who continued the last-mentioned treatment, which Mr. Clubbe, the House Surgeon, had commenced. Within a few weeks of his death he lost the power of the left arm. There was (says the reporter of this case) a general loss of muscular power and that tremulousness which Carpenter attributes to disease of the cerebellum. During the last few weeks of his life he had several "fits," preceded by intense pain in the head, and then loss of consciousness, but no stertor, and there was a good deal of muscular movement. In such an attack he died on June 29, 1857. For some weeks there had been strabismus of the left eye; the tongue was never devious, nor the face drawn to one side.

Autopsy.—Skull remarkably thin; scalp exceedingly congested; dura mater not adherent, but completely adherent over lower surface of the left lobe of cerebellum, both to the brain substance and to the skull. A large proportion of this lobe was converted into a hard substance, which on section presented a yellowish-white coloured surface. A small portion was found in the right lobe of cerebellum, also several small nodules around the basilar artery, the pia mater over the medulla and pons Varolii being closely adherent to the brain substance, which on section was hard, but not the seat of any deposit. In the substance of left lobe of the cerebellum blood had been effused, and the tissue was broken

down and hollowed out to the extent of a walnut. The brain elsewhere was congested throughout, but healthy. There was a considerable amount of fluid in the ventricles. The internal ganglia were quite healthy. Examination of other parts of the body was not permitted.

The deposit was examined under the microscope, and found to be tubercular by two observers independently. It was reported to be "a firm, fibroid form of tubercle."

ST. THOMAS'S HOSPITAL.

HEADACHES—SICKNESS—SUDDEN BLINDNESS—NO PARALYSIS OF THE LIMBS—PHTHISIS—DEATH IN A CONVULSIVE ATTACK—TUBERCULAR DISEASE OF CEREBELLUM.

(Under the care of Dr. BRISTOWE.)

There was blindness in this case, but the results of the ophthalmoscopic examination were different to those in the case of Dr. Gull, these being the only two cases in which this instrument was used. The retinæ were healthy. It is certainly very rare to find blindness without some marked change in the fundus of the eye. In one case, however, at Moorfields, some little time ago, there was total blindness of one eye and not the least abnormal appearance. The eye was carefully examined by Mr. Dixon, Mr. Baden, and many others. A week later, marked organic changes were found in the optic disc. In but one case, out of a great many cases of amaurosis with disease of the nervous system (hemiplegia, paraplegia, etc.), at the Hospital for the Epileptic and Paralysed, have we found the fundus quite normal. This was a case of half blindness of each eye. Recently, however, failure of the previously healthy halves of the retinæ having occurred, the optic nerves have gradually become anæmic.

E. A., a little girl, 7 years of age, was admitted into St. Thomas's Hospital, under the care of Dr. Bristowe, on September 18, 1860. She had been living away from home, and hence a very imperfect history of her symptoms prior to admission was obtained. It appeared, however, that she had always been a weakly child, that for some few months she had been subject to occasional attacks of sickness, and that a week or two since she had become suddenly blind, no further cerebral symptoms having at any time manifested themselves. Her mother had died of phthisis, and she had lost several of her brothers and sisters,—one by hydrocephalus, one by diarrhœa, and others at birth.

When admitted, she was thin and feeble, and lay in bed on her side unwilling to move. She had, however, the perfect use of her limbs, and sensation was everywhere natural, but she passed her water and motions without power or effort to restrain them. Her face was pale and bore an anxious expression, and she complained of pain across the forehead. She kept her eyes open, but they were totally insensible to light, and the pupils were dilated and immovable. She was perfectly conscious, but answered questions in a whining manner. Her appetite was exceedingly good, but she was occasionally sick; her tongue was a little furred; bowels rather relaxed; she had a slight cough, and there was questionable dulness at the right apex, with some crepitation. Pulse 86, regular, very feeble; urine not albuminous.

For the next few days she continued much the same, but she was carefully watched, and the details of her condition, as given above, were, for the most part, confirmed. She continued fretful, complained of pain in the forehead, and occasionally screamed out without any obvious reason. The eyes still remained perfectly insensible to light, and generally wide open; examined by the ophthalmoscope, the retinæ appeared quite healthy. The sickness occurred still at times; but the diarrhœa ceased, her tongue became clean, and her appetite continued excellent. The slight cough entirely disappeared She still passed her evacuations under her, and lay in a torpid state, but exhibited no clear sign of paralysis. The surface was generally cool; the tip of the nose and the hands and feet mostly livid.

There was, during the whole of the time she was under observation, little daily change in her condition. The blindness and slight headache continued unaltered. The sickness varied, and sometimes disappeared for two or three weeks together, but always recurred. The appetite, except once or twice temporarily, remained almost ravenous up to the last. The bowels were generally inclined to looseness, and sometimes very much relaxed, but during the last week or two were constipated. About the end of November a troublesome cough came on, which continued from that time uninterruptedly, and increased, but was at no time attended by expectoration. At that time, too, the chest, which had not been examined for several weeks, was carefully explored, and much consolidation of the apex of the right lung was discovered, with indications of breaking down; and the left apex was found to be diseased, though in a less degree. Henceforth the chest was examined periodically, and with care, and the pulmonary disease was so rapid in its progress that before her death it was found to have invaded the greater portion of both lungs. She became emaciated to the last degree, entirely helpless, but rather from weakness than paralysis, though latterly the thighs became flexed on the abdomen. Lividity of the nose, cheeks, and extremities became more marked and persistent, a little œdema of the ankle came on, and bed-sores appeared. The pulse increased in frequency. She continued sensible, however, though apathetic, rolled her head about, and occasionally moaned or screamed, and the eyes latterly became permanently directed upwards. She generally slept well.

On January 26, shortly after breakfast, she was seized with a convulsive fit, during which her head and mouth were drawn to the left side. She continued in it, perfectly unconscious, for about three hours, and at the end of that time died.

Autopsy.—The body was small and extremely emaciated. *Head.*—Calvaria and membranes of brain quite healthy. The cerebrum displayed no signs of disease, beyond some dilatation of the lateral ventricles, with accumulation of serum in them. The left lobe of the cerebellum presented as nearly as possible its natural size, so that the entire organ looked at first sight symmetrical. This lobe, however, was generally much harder than its fellow, somewhat irregular on the surface, of an opaque yellow colour, and, in great measure, without the usual lamellated character. On section it was found to be infiltrated in the greater part of its extent by cheesy tubercular deposit. This forming a more or less rounded and nearly uniform mass, which occupied fully two-thirds of the lobe, involving every part of it except the posterior and inferior third. The remainder of the cerebellum was healthy. No deposits of tubercle were discovered elsewhere. The optic nerves, tracts, commissure and lobes were perfectly healthy; the infundibulum, however, prior to the escape of fluid from the lateral ventricles, was remarkably distended with serum. Could it from its distension have affected injuriously the contiguous optic tracts and commissure, and so caused blindness? *Chest.*—Lungs attached to the parietes by old adhesions; studded thickly, from apex to base, with yellow tubercles, which had coalesced more or less with another, so as to form tubercular tracts of considerable extent. The disease was most advanced in the apices, and especially in the right, where numerous cavities of small size existed. Pericardium and heart healthy. Larynx and trachea healthy. *Abdomen.*—There was a little serum in the abdominal cavity. The liver was rather large and congested, and contained a few small tubercles. The spleen was dense and dark-coloured, and studded with tubercular deposits. A few tubercles were found also in the kidneys, which were congested, but otherwise healthy. The stomach and intestines and other organs were all healthy, or nearly so.

EDINBURGH ROYAL INFIRMARY.

PAROXYSMAL HEADACHES—PARALYSIS OF THE LOWER LIMBS—SICKNESS—IMPAIRED VISION—DEATH—TUMOUR OF THE CEREBELLUM.

(Under the care of Professor LAYCOCK.)

[Reported by Mr. RICHARD DAVY.]

Ann G., aged 49, married, was admitted into the Clinical Ward No. XI., on November 4, 1861.

Antecedent History.—She states that she was quite well until two years ago, when she began to complain of cephalalgia, mostly over the occipital region, but extending forwards over the vertex. This pain was described as being of a dull obscure nature, occurring about three or four times a day, and continuing for several hours, when corresponding remissions ensued. These morbid sensations did not at first materially interfere with her powers of intelligence or locomotion, but have subsequently impaired both functions—so gradually and insidiously as not to cause apprehension. The encephalic pain has of late been less frequent but intensified. She complains of no other unpleasant head symptoms, and cannot account for their primary accession. The date of menstrual cessation coincides with the first occurrence of symptomatic lesion. Her youngest child is at present ten years old. The process of parturition always performed naturally.

On admission the systems were as follows:—

Circulatory.—Cardiac transverse dullness 2 inches; cardiac diagonal dulness, 3 inches. Sounds natural, with the exception of a faint systolic murmur heard at the apex. Pulse 50, very feeble but regular.

Microscopic Examination of Blood.—Red corpuscles are flabby, irregular in shape, do not form rouleaux but cohere by their margins. White corpuscles slightly in excess, and unusually large and granulated.

Respiratory.—Respiration slow; natural resonance; some harsh puerile breathing audible at the apices of both lungs anteriorly.

Digestive.—Tongue covered with a whitish fur. Appetite good. The abdomen is supple and free from pain; colon more or less distended with solid matters. Stools passed involuntarily.

	Vertical dulness.	Transverse dulness.
Hepatic organ	4½ inches	6 inches
Splenic organ	2½ ,,	4 ,,

Integumentary.—The few teeth remaining are loose and decayed. Gums collapsed. Skin marked by a bronzed yellow tint of pityriasis. Expression prematurely old. Pupil of the left eye comparatively dilated. The cheeks are suffused with a marked capillary blush, significant of a constitutional tendency to arterial disease; in short, her whole physiognomy betokens the arthritic diathesis.

Genito-Urinary.—Urine passed involuntarily, consequently no opportunity for testing it.

Menstruation has disappeared for the last two years. No vaginal discharge.

Nervous.—Encephalic pain, commencing at the occiput, extends forwards, apparently in the direction of the vertebral and posterior cerebral arteries. The pain is paroxysmal; the attacks occurring frequently during twenty-four hours, and lasting about an hour at a time. The patient screams so loudly during sleep, as to compromise the quiet of the clinical ward. Percussion over the vertebræ is unattended with inconvenience, and no pain complained of in other parts of the body. Loss of motor power in the lower extremities, but sensibility is entirely perfect. The upper extremities are not sufficiently affected to preclude their free and useful employment. Sleeps soundly, but very often is disturbed by apprehensive dreams; such as fancying her husband and self in great danger; sometimes her dreams are imaginary, she sees dwarfs, fairies, fantastic elves, etc. She is conscious that her memory is greatly impaired since the commencement of her illness; incoherency may be noticed in her remarks; but no exalted ideas or traces of optimism. The configuration of her head, features, and expression denote the neuro-arthritic diathesis.

November 9.—A blister behind each ear.

10th.—The blisters were applied and dressed in the usual manner, but afforded no relief.

11th.—Sickness and anorexia. Heart's action very feeble, and no systolic murmur can be distinguished. Chloroform to be applied to the nape of the neck locally, by means of lint dipped in the fluid, and evaporation prevented by covering it with a watch-glass.

12th.—Her head was partially shaven, and the chloroform applied with some benefit. She complains of great cephalalgia, imperfect vision; urgent sickness; her cheeks are cold, but minutely injected; her pupils sluggish, but of equal size; incipient arcus senilis at the superior segment of cornea; pulse very small and compressible, 72 per minute.

13th.—At 8 a.m. the nurse noticed her features very livid. Dr. Simpson (House-Physician) was summoned, but before he arrived the patient had died. She did not utter any cries, nor was there any convulsion.

Clinical Remarks, by Professor Laycock.—The post-mortem examination was conducted in the pathological theatre by Dr. Haldane, previously to which Professor Laycock remarked upon the case, and indicated the lesions of the nervous system that would probably be found. He called attention to the fact that there were none of the symptoms which indicated lesions of the hemisphere or their ganglia, as maniacal delirium, hemiplegia, or spectral illusions; and that the loss of memory, slight incoherence, and peculiar dreams might be the result of distant causes. Nor were there any symptoms that indicated structural change in the tubercular quadrigemina, pons Varolii, medulla oblongata, or the commissural structures at the base of the brain. The loss of power over the sphincters and the lower extremities might seem to indicate a lesion of the medulla spinalis; but these were not unfrequently associated with certain encephalic affections in which there was reason to think the cerebellum was the chief seat of disease, and as in this case there was violent occipital pain, Dr. Laycock concluded the lesion would be formed in the cerebellum. As to the nature of the pathological change, it might be of two kinds, namely, softening, due to disease of the arterial tunics, and accompanied with arterial neuralgia, or chronic inflammation of the dura mata lining that portion of the occiput from whence the pain commenced. The constitutional or diathetic tendencies of the patient being manifestly to disease of the serous and sero-fibrous tissues, the diathetic diagnosis would warrant either supposition, and pointed also to the probability that the aorta would be atheromatous.

Autopsy, Twenty-Eight Hours after Death.—Body emaciated and semi-jaundiced; features prominent and pallid; circular spots on forearms simulating ecchymoses; mammæ flaccid; no œdema about the corpse. *Head.*—Skull-cap somewhat denser than natural. On removing the dura mater, the sulci of the brain were seen to be indistinct, the surface of the brain flattened, and the venous sinuses congested. On slicing the brain longitudinally the roof of both ventricles bulged upward; both were dilated, and each contained about two ounces of clear serum, which gave a slight albuminous reaction. The parts contained in the ventricle were quite healthy. On removing the brain the posterior part of the left lobe of the cerebellum was found firmly adherent to the dura mater, insomuch that it was removed altogether. The dura mater was then found adherent to the left lobe of the cerebellum for a space about the size of a shilling. On examining the base of the skull the occipital bone was found much thickened, and on the left side, close to the occipital protuberance, the bone was excavated by interstitial absorption. The fossæ also for the arteriæ meningeæ mediæ were well marked. The left lobe of the cerebellum was softened, and a tumour of the size of a walnut was found connected with the dura mater, growing inwards towards the cerebellar mass, but implicating its grey matter only. This tumour did not appear to be materially connected with the cerebellum, as its different lobules could be enucleated with great facility without any tearing of the cerebellar mass. On section, the left lobe was found somewhat softened, the white matter presenting a distinct but faint yellow colour. The tumour itself on section was lobulated, of a greyish colour, and had a smooth, homogeneous translucent appearance; its consistence was firm and almost cartilaginous, giving a creaking sound on section. The dura mater over the right lobe of the cerebellum was thickened, but not adherent to it, about an eighth of an inch in thickness, and extending over the space of a fourpenny-bit; firm, and of an opaque yellowish material in appearance. The pons Varolii, medulla oblongata, and cerebral lobes were quite healthy in appearance. The spinal cord was not examined. On microscopic examination the tumour consisted chiefly of small rounded cells and fusiform corpuscles; the cells were of the size of mucous corpuscles, contained one or two nuclei, and a little granular matter. The fusiform cells contained small nuclei, and presented the usual appearances of the cells in fibro-plastic formations. The tumour on the right side was of essentially the same character, but more granular and molecular matter was seen with it. *Thorax.*—Heart weighed 8½ ounces. Its right side was healthy. There was a smooth atheromatous patch on the anterior flap of the mitral valve; and also degeneration at the commencement of the aorta and of the sigmoid valves. Firm adhesions on the right side of the chest, a free collection of muco-purulent matter in the bronchi, and the whole membrane was slightly congested. *Abdomen.*—The great omentum was found to extend down to the pelvis, and to be adherent to a rounded tumour of the size of a walnut, connected with the right ovary. This proved to be an ovarian cyst, containing a yellow viscid matter, and convoluted hairs. *Liver.*—Healthy. Gall-bladder contained many dark green calculi, of a pyramidal shape with smooth facets. *Spleen.*—Weighed seven ounces; capsule thickened and adherent in one spot; otherwise healthy. *Kidneys.*—Of natural size, on removing the capsules their surfaces were found rather rough, and some small cysts were found in the cortical substance containing a gelatinous material. The catheter was passed on the dead body, but there was no urine in the bladder; consequently the chemistry of this secretion was not ascertained.

J. H. J.

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Medical Times and Gazette.

SATURDAY, OCTOBER 18.

THE NEW METROPOLIS LOCAL MANAGEMENT ACT.

Under the Government happily established in this land, public opinion and actual legislation advance hand-in-hand. New laws are but the reflex of the popular mind—the expression of ideas grounded in conviction on the part of those amongst us who have taken the pains to apply their minds to the subjects to which they relate. Thus it is, that we hail any step which Parliament takes in advance, not as placing a compulsion, which circumstances may or may not warrant, upon those who are unable to resist its will, but as a real indication of what has been effected in educating the intelligence of the masses. At the same time it is not to be overlooked, that while an Act of Parliament thus establishes and defines positive popular conviction, it reacts also upon the conditions out of which itself originates; and by influencing those whom, from thoughtlessness or ignorance, conviction has not yet reached, plays also the part of a popular educator. It thus becomes both our duty and our pleasure, as Medical journalists, to register, from time to time, the landmarks which Parliament places to show what has been gained by the efforts of sanitarians from the bed of that ocean which has hitherto overwhelmed the borders of our land with wretchedness, disease, and death.

Perhaps, after all, what we are about to record in the amendments of the Act for the Local Management of the Metropolis, may be regarded by some of our readers as scarcely worth the space that it will occupy, because dealing merely with details of sanitary management and involving no new principle. But such will not be the opinion of those who have been the most active in carrying into operation the original Act. It is exactly these details which unfetter their hands, and permit them to effect what hitherto has been beyond their power. We will, then, briefly point out the more important of those provisions in the amended Act which bear upon sanitary matters:—1. By the Sixty-second Section every district surveyor is now required to report to the several vestries and local boards in the months of June and December, as well as at all other times when he shall be required to do so, all underground rooms or cellars occupied as sleeping rooms that are not constructed in the manner prescribed by law. It was formerly, indeed, their duty to make such reports; but, as no special fee was appended, its performance has been avoided, as far as was at all decent, and limited to compliance with some special requisition in respect of an individual case. The vestries can now call for an independent half-yearly report. We hope they will do so. 2. The Sixty-seventh Section is a highly important one. The necessity for it arose from the divided authority of vestries on the one hand, and churchwardens and overseers on the other. Up to the time of passing of this Act, if it appeared to any Health Officer, or to the vestry, that a house was not properly supplied with water, it was necessary to apply to the churchwardens and overseers, over whom neither might have any influence, and to request them to consider the case, and to take the needful steps for remedying the evil. Much time was certain to be lost by this reference, and it has more than once happened that these officers have, from various reasons, declined to interfere at all. The proceeding is now much simplified. The vestry or district board, if an owner or occupier shall fail, on requisition, to lay on water to a house, may at once carry out the work, and compel any water company to grant the supply, the owner or occupier being liable for all charges and for payment of the water-rate. There is another provision, the reasonableness of which is self-apparent. Where a house is occupied by more than one family, and the water supply is insufficient for the number of inhabitants, and the occupier shall fail to comply with the requisition of the vestry to obtain a further supply, the vestry is empowered to take proceedings for "overcrowding" in the manner provided by the Nuisances Removal Act; and the penalties for overcrowding under that Act are to be applicable. Here, then, it is conceded by the Legislature, that "overcrowding" may be something else than the cramming of a larger number of persons into a house than the air within that house can keep in health, and that a deficiency of water is also a reasonable ground for diminishing the number of occupants. 3. By the Seventieth Section vestries are empowered to provide and maintain drinking-fountains, and a penalty is laid upon persons wilfully damaging their structure, or fouling the water. 4. The Eighty-fifth and Ninety-eighth Sections relate to the width and ventilation of streets. By the former it is provided that no building (except a church or chapel) shall be erected on the side of any new street, of a less width than fifty feet, which shall exceed in height the width of the street; and, by the latter, that no road, passage, or way, shall hereafter be laid out as a street for carriage traffic unless it be full forty feet in width, not including forecourts in this measurement, nor for foot traffic only, unless of the full width of twenty feet, or unless such streets respectively shall be open at both ends. This clause, then, as we read it, only provides for a proper width being given to those blind courts and streets which are known to all Health Officers as the favourite haunts of infectious disease. 4. Among the nuisances contemplated by the Nuisances Removal Act are included animals so kept as to be a nuisance or injurious to health. It has been under this Act that Health Officers have hitherto been compelled to seek redress for the nuisances arising from the keeping of swine and cows in this Metropolis. The inefficiency of its provision is now admitted. The Ninety-first section of the new Act recognises the well-known fact, that swine are animals most likely to create a nuisance, however complete may be the arrangements for keeping them. It therefore forbids, under a penalty not exceeding 40s., and a further penalty not exceeding 10s. per diem after notice for their removal, the keeping of swine in any locality where they may create a nuisance or be injurious to health; and if it be proved to the satisfaction of a magistrate that any locality or premises are unfit for the keeping of these animals, he is empowered to prohibit their use for that purpose for the future. No one can say that this power has been too soon placed in the hands of the authorities. As respects cow-houses, provision is made, by the Ninety-third Section, for their being licensed in the same manner as slaughter-houses; and each cowkeeper is required to give fourteen days' notice to the vestry of his intention to apply for a license, to the intent that the vestry may oppose its being granted should it think fit. Now, then, is the time for the cleansing of these sinks of corruption—these stables of Augeas. Let the Medical Officers of Health for the next few weeks be up and doing. The slaughter-houses were bad enough—they all know that the London cowsheds are ten times worse. We have judged but ill

of the activity of this effective body of gentlemen, if November next does not see a much-needed reform carried out by their energy, and by the representations which they are empowered to make to the vestries with which they work. We must add, that the Ninety-fourth Section gives the vestries the same oversight of knackeries, that they possess already over slaughter-houses for animals to be consumed as human food. 5. The efforts of the Metropolitan Association of Medical Officers of Health have also been successful in causing the introduction of a clause empowering vestries (with the written consent of proprietors) to contract for the removal of manure from stables and cow-houses. The object of this clause is to remove a practical difficulty—perhaps nothing more than an excuse in most instances—namely, that at certain seasons of the year the owners of these places cannot get any one to remove their manure even at a gift. We sincerely hope that the Metropolitan vestries will not be behind their officers in this endeavour to purify the atmosphere of London. 6. The last point to which we must allude appears at first sight a mere technicality. It relates simply to the definition of a "new street"; but as the definition is made retrospective to the original Act, its meaning is most important. In all the suburbs of London where building has been going on to any extent, there exist streets laid out prior to the passing of the Metropolis Management Act in 1855, which have never been properly paved by their constructors, and which, therefore, local authorities have ever since declined to take under their jurisdiction for the purposes of repair; at the same time, not being new streets in the meaning of that Act, they had no authority for causing them to be properly paved. The road and pathways of these streets have been perpetual nuisances—rough and dusty in dry weather; soft, quaggy, and miasmatic in wet. By the definition referred to, they need be so no longer, since a "new street" is now defined to be any street the maintenance of the paving and roadway of which had not, previously to the passing of this Act, been taken under the control of the local authorities. The 105th Section of the original Act (1855) provides, that if the vestry or board deem it necessary or expedient that a "new street" should be paved, they may pave the same; and the Seventy-seventh Section of this amended Act provides for the expense of the paving being defrayed by the owners of the houses therein and of the land abutting upon or bounding the street. With this short summary, we dismiss the subject for the present. The new Act does not give to Sanitary Officers, perhaps, all the power which they had good reason to ask; but, so far as it goes, it appears calculated to confer an undeniable benefit upon the London public.

LONDON HOSPITAL.

(*From a Correspondent.*)

The London Hospital is situated in the Whitechapel-road, at the eastern extremity of the Metropolis, about a-quarter of a mile beyond Whitechapel Church. It was founded in the year 1740, and was then surrounded by fields, at a distance from any dwelling. Since that time, however, a very populous neighbourhood has gradually sprung up all around it, and numerous manufactories have been built in its vicinity. Its position, nevertheless, may still be termed airy; and a considerable portion of ground behind it is reserved for the recreation of the convalescent patients. It is mainly supported by funded property; but its income from this source usually falls short of its expenditure by about £5000 annually. This deficit is supplied by donations and subscriptions. Many of the large firms near the establishment subscribe princely sums every year for its maintenance; and ten years ago one of the Physicians (a) induced a gentleman who had no relatives, and who had determined to leave his property in bulk to a charitable institution, to choose the London Hospital as his legatee. This property netted to the Hospital above £30,000. On the occasion of the Centenary Festival, more than £13,000 was collected, and at the anniversary dinner of 1860 above £26,000—the largest sums ever known to have been subscribed for any charity, on any similar occasions, even in this benevolent city. These amounts are mentioned to show the estimation in which the Hospital is held by its supporters, and those who are most intimately acquainted with its working.

(a) Dr. Ramsbotham.

It contains 445 beds, of which 135 are allotted to Medical and 310 to Surgical cases; and of these 310, about 190 are exclusively appropriated to cases of accident. But the beds are placed at such a distance from each other, that a much greater number of patients could be admitted on an emergency, and many more cubic feet of air are allotted to each than is the case in the generality of Metropolitan Hospitals. There are also a very extensive and well-regulated out-patient department, and a maternity charity attached, which affords quite as many as, and even more cases of labour throughout the year than are required for the purposes of education. Last year the number of women delivered by this charity amounted to 631. Ample means are also given for studying the progress of the vaccine vesicle.

One of the chief features of which the London Hospital may boast is the very numerous cases of accident received into its wards, or treated as out-patients. The amount is almost incredible; for it nearly approaches to the total that is admitted into all the Metropolitan Hospitals together. During the last twenty years 186,667 accidents have been treated; the number has been steadily increasing year by year, without a single exception, to the present time. Last year it reached the enormous number of 11,973, or nearly thirty-six cases in every twenty-four hours, including Sundays. All these cases required a continuous attendance: such as did not were not registered. The proximity of the Hospital to the East and West India, the London and St. Katherine's Docks, and the river, together with the great number of manufactories in its vicinity, will account for the preponderance of personal injuries for which this part of London is conspicuous.

The Medical Staff consists of three Physicians and four Assistant Physicians; one Consulting Surgeon, three Surgeons, and four Assistant-Surgeons; an Obstetric Physician, an Assistant Obstetric Physician; a Surgeon-Dentist, and three Dispensers. Besides these there are a Resident Medical Officer, or Physician's Assistant, elected for twelve months at a salary of £75 a-year, re-eligible for another twelve months at £100 a-year; a Medical and Surgical Registrar at a salary of £25 a-year; two House Surgeons elected every three months, and eligible for re-election for a further three months; a Resident Accoucheur appointed for six months, re-eligible for another six—he conducts the maternity department in and out of the house; an Assistant Medical Officer, who is chosen from the Medical pupils for a month, and remains day and night in the house; and two Surgical Dressing pupils in rotation, who remain in the Hospital day and night for a week. All these gentlemen are provided with commons. Four additional Dresserships for six months are given away annually to four members of the class, each pupil having previously been selected for the privilege of dressing the out-patients during the same period; an Assistant-Dentist is elected for three months. Post-mortem Clerks are selected according to merit. The examinations in the dead-house take place at a fixed time in the day, and are always superintended by the same members of the Medical and Surgical staff. Two gold medals are annually awarded by the Governors to those two students attending the Medical and Surgical practice who have most distinguished themselves in the performance of their duties. Wards are specially appropriated to the reception of cases of uterine disease, and to a limited number of cases of syphilis.

The academic portion of the School, properly so called,

is the first that was established in London in connexion with any of the large Hospitals. It was founded by Sir William Blizard in the year 1785. The ground having been given by the Committee, the buildings were erected by money chiefly supplied by himself. There is a syllabus of lectures extant, bearing date 1792, in which Dr. Cooke is advertised to lecture on Medicine, Dr. Hamilton on Materia Medica, Drs. Cooke and Hamilton on Clinical Medicine, Dr. Dennison on Midwifery, and Sir William (then Mr.) Blizard on Anatomy and Surgery. There is now a complete corps of lecturers. One of the demonstrators attends daily in the dissecting-room from 10 till 3 during the winter session; and two prosectors are annually selected from among those students who have passed the preliminary anatomical examinations at the College of Surgeons, to assist the pupils in their dissections. These gentlemen receive a gratuity for their services. Eight years ago, the governors, with laudable generosity, built a College on the Hospital ground, at the expense of nearly £14,000, for the use of the lecturers and students. This was superintended in its erection by a committee of the teachers, and is one of the most complete and convenient buildings of its kind in London, possessing spacious and airy theatres and dissecting-rooms, museum and retiring-rooms both for lecturers and students, with every other accommodation that could be required. The taxes and the whole expense of upholding these buildings is defrayed by the Hospital Committee, at a cost of between £70 and £80 yearly.

There is a well-selected museum of natural and morbid specimens under the charge of an honorary and a sub-curator, which latter gentleman is chosen from the students and receives a gratuity. In the Hospital there is also a good library, to which the students have access, the apartment itself forming a most comfortable sitting-room.

The perpetual fee to the lectures alone is £50; and the general fee for attendance on the Medical and Surgical practice, qualifying for examination at the University of London, the College of Physicians, College of Surgeons and Apothecaries' Society, and perpetual attendance on all the lectures, is 84 guineas, payable in two instalments of 40 guineas each, at the commencement of the two first winter sessions of attendance. But students may make special entries to any of the lecturers, or to Hospital practice. A fee of one guinea is paid for instruction in vaccination. There are plenty of respectable lodgings to be had in the immediate neighbourhood of the Hospital—a bed and sitting-room—at about twelve shillings a-week.

The London Hospital has always conducted itself with retiring modesty, and the Professional *attachés* have, for the most part, followed the same practice. It is not to be expected, therefore, that many very striking traits of character should have been manifested, so as to make their sayings or doings interesting to those who had not personal knowledge of the individuals. Some of its celebrities, however, are well worthy of a passing notice. To say that Dr. Cooke possessed a highly cultivated mind, that his classical attainments were fully equal to his literary fame, and that his urbanity and politeness were quite on a par with his excellent judgment and practical knowledge, is not more than would be conceded to him by any of those who, in his day, possessed the advantage of his friendship. Or to say that Thomson and Grindall (the former of whom first in England performed the Cæsarian section on the living woman, on which occasion he was assisted by John Hunter) were excellent Surgeons for their time; that the city ladies—when, indeed, the merchant princes of London used to reside within its walls, when Bedford-square and Guildford-street were regarded as the "West End," before Harley-street was built or the Regent's-park thought of—did not consider they had properly and satisfactorily gone through the process of labour unless Dr. Dennison officiated as the presiding genius,—is only what all the city world of the last age but one would confirm. But, to descend nearer to our own time, the names of Yellowly, and of the elder Ramsbotham, who succeeded Dennison, may both be spoken with reverence; and Thomas Blizard, who was for many years one of the Surgeons, though contemporary with Sir Astley Cooper, then living in the city, managed to keep a very large share of the city practice to himself.

Many men now living will bear vividly in mind the solid, measured bearing of Dr. Robinson, hemming after every three or four words, and taking as much time to see one patient as most Physicians would to see a dozen. He was a fine, portly man, and evidently prided himself not a little on a pair of excellently executed legs, which were invariably decorated with shorts and silk stockings.

More still will call to their recollection the good-humoured and zealous energy of Dr. Thomas Davies, always on the move, and always usefully employed. He commenced life as an Apothecary in the Mile End-road; but soon broke up his establishment in consequence of ill-health, and went to Montpellier, where he graduated. He was deeply impressed with Laennec's discovery, studied the stethoscope carefully, and was the first to introduce to the British Practitioner an accurate knowledge of the morbid anatomy of the lungs and heart as distinguishable by the stethoscopic sounds. On his return to England, with much generosity he gave a course of lectures gratuitously to the Medical Profession on its use and value, at his residence in New Broad-street. These were received with much approval. They were repeated at the London Hospital in an enlarged form, published in this Journal in 1833, and afterwards collected in an octavo volume, which came out in the year 1835.

He deservedly rose rapidly into practice; and among the residents at the east of London he went for many years by the *sobriquet* of "the man with the horn." The Hospital experienced a deplorable loss by his untimely death. Had Thomas Davies been planted in the African desert, he would have picked up a fortune.

Nor must the name of Pereira be passed over without special notice. Though for many years connected with the School as a lecturer on Chemistry, Materia Medica, and Forensic Medicine, he was but a short time attached to the Hospital as Physician. He was a most excellent, and consequently very popular, lecturer, and any Medical Institution in the country might be proud to have had Pereira's name associated with it.

Of Drs. Billing, Gordon, and Cobb, all lately Physicians to, and lecturers at, the Hospital, being still living, it is not our province to speak; and of the present men it is sufficient to say that they are active and energetic, and that many of them devote a large portion of their time for the benefit of their pupils.

But the Hospital and the School are respectively more indebted, perhaps, to Sir William Blizard and Mr. Headington than to any other of their *corps de bataille*. Not a few former pupils of Headington will well remember his stiff, upright figure, and steady, noiseless gait, and the evident pride and satisfaction with which he looked upon everything associated with the duties of a Hospital Surgeon. To speak of him as an enthusiast in his Profession is much to underrate that quality of his mind. He seemed to think the world afforded no higher position than that of a Hospital Surgeon, and that to have attained that eminence should be the ultimatum of a man's ambition. As a lecturer, he was clear, perspicuous, and impressive; and, as a man, punctilious to the highest degree. Not the slightest deficiency in etiquette escaped his notice; and his own conduct was marked by a rigid adherence to every, even the minutest, form of propriety. He never married; and in his person were concentrated almost all those proverbial peculiarities commonly attributed to a state of celibacy. The predominant trait in his disposition was a

sacred love of truth—a stern, inflexible, undeviating honesty, which knew no gradations, and would brook no diversion. Duplicity of every kind was most repugnant to his nature and hateful to his feelings. He was most scrupulous, as might be expected, both in his attention to his Hospital duties, as also to those connected with his academical class; and he used to spend much time in the dissecting-room, not only imparting instruction to his pupils, but by his presence there stimulating them to increased diligence. Indeed, the School itself may be said to have been at one time kept alive almost by his sole exertions. His chief, we might say his only, recreation used to consist in studying the ancient classic authors. Though a first-rate anatomist, he was neither a brilliant man nor a dashing operator; but he used the knife skilfully; he possessed a sound judgment, as well of men as of things, and he could scarcely be surpassed as a practical Surgeon. His pupils and his friends might all exclaim, with the countess in "*All's Well that Ends Well*," "We had a friend (oh! that *had*, how sad a passage 'tis!) whose skill was almost as great as his honesty; had it stretched so far, 'twould have made Nature immortal, and Death would have play, for lack of work."

In regard to Sir William Blizard, if ever a public institution was indebted to any one of its officers, the London Hospital was most assuredly so to him; and if ever a Medical officer exerted himself to keep afloat a Hospital for the sick, that man was Sir William Blizard. He gave largely himself, and was incessantly calling on his wealthy friends to contribute towards the maintenance of the London Hospital. Upon more than one occasion, when some of the wards were obliged to be closed for want of funds, he used his influence so successfully, that, in conjunction with some of the old and tried friends of the institution, he kept it on its legs, and mainly contributed towards producing its present flourishing condition. His attachment to the Hospital, indeed, induced him to hold the office of Surgeon, and to operate, far beyond the time when it is now thought expedient that duties requiring the perfect possession of at least four out of the five senses should pass into the hands of younger men. He was considerably above 80 when he relinquished his post; and it is a question whether, had he not been afflicted with incipient cataract, he would even then have retired. The last time he operated in public was in 1827, when he was 84 years old: the operation was amputation of the thigh, and he performed it by the flap. The stump healed excellently well. Sir William was a complete gentleman of the old school, kind-hearted and benevolent, with always something pleasant if not jocose to say to his patients, and especially to the children in the wards, whom he often used to gladden by presenting them with some small coin. Indeed, he frequently relieved from his own purse his necessitous patients on their leaving the Hospital; and this prompted him to establish the Samaritan Society in 1791, for the purpose of giving pecuniary aid to the more destitute of the poor when they were dismissed,—an adjunct of the Hospital now so flourishing as to be able to disburse more than £600 annually. Nor was his liberality confined only to the patients: one of the pupils, who had been guilty of some wildness and extravagance, and had run into debt to a greater extent than he dared ask his father to liquidate, or, in fact, than would have been in his father's power, became ill. Sir William attended him, and finding that his progress towards recovery was evidently interrupted by anxiety of mind, begged him to tell him the reason. After some persuasion the lad told him the whole of his story. Sir William generously liquidated all the lad's liabilities, and afterwards helped him to a good appointment abroad.

He was hospitable as well as generous, and fond of entertaining the students; and his pluck was indubitable. In his earlier career, from defective police arrangements, the eastern end and suburbs of the Metropolis were very unsafe after dark, and Sir William always carried a hanger under his cloak, or in his chariot, which he continued to do till he died. One day, at the College of Surgeons, Mr. Guthrie took up this weapon, and, quoting Hudibras, exclaimed,—

"Master Trusty—
For want of use a little rusty."

"Yes," rejoined Sir William, "but not for want of courage." On another occasion, also at the College, Guthrie alluded to his going about armed, when he exclaimed, "With that blade, sir, I would face the devil; to which Guthrie answered, "Then you had better put it in your coffin; you may want it." It is told of him that, being stopped once on Shooter's-hill, the highwayman, seeing him prepared for a stout resistance, made an apology and disappeared. On another occasion he was stopped in his carriage by three men, in Essex. He put a pistol to the breast of one of them. but it missed fire; he therefore gave up his watch and purse. Afterwards, recollecting that his watch, though not of much value, was the gift of an esteemed friend, he asked for it back again. The man at once said, "You're a brave fellow; there's your watch," and returned it to him.

He rendered important services during the riots in 1780. In Wheatley's picture of Broad-street during those disturbances, well known from Heath's engraving, he is represented as picking up a wounded rioter, while another is aiming a blow at him, but is restrained by a third, who seems to recognise him. Of anything empirical he had an utter abhorrence.

Sir William was endowed with an extraordinary memory. Within a year of his death, when dining at a friend's house, he repeated aloud to the company the whole of Gray's "Elegy in a Churchyard," almost without hesitation, though he had not seen it for forty or fifty years. He did not shine as a methodical lecturer; his address was not sufficiently systematic, and too excursive; but he appeared to great advantage in the Hospital wards, where the aptness and vivacity of his remarks rendered his visits at all times instructive. Among his other mental qualifications (who would have thought it?) Sir William was a poet. In addition to many pieces produced at different periods of his life, he wrote an "Ode of Gratitude" after his restoration to sight. This is dated March 1, 1835. Onthe occasion of a very calamitous fire at Ratcliffe, when 1400 families were thrown out of their homes, a benefit was given for the sufferers at the Royalty Theatre, and he wrote a poetical address, which was recited with much effect.

His respect for form was very great: if any of the pupils or nurses called him "Sir," he would correct them by saying, "My name is Sir William." He never went into a ward with his hat on, nor would he allow anybody else to do so; and the low and formal bow, with which he would turn round and take leave of his class, when he dismissed them, after going round the wards, must live in the remembrance of every one who has ever accompanied him. He often reverted with legitimate pride to the gratifying circumstance of his having had Abernethy as a pupil.

He was twice President of the College of Surgeons; and the London Hospital has afforded three other Presidents since that time, each of whom has held the office twice. The Jacksonian prize, to which we owe so many excellent treatises, was founded in 1800, at his instigation, by his friend and former pupil, Samuel Jackson. In 1803 he was appointed, with two other members of the Court, to present an address from the College to the King, on which occasion he had the honour of knighthood conferred upon him. On his 91st birthday, not long after his retirement from the Hospital, a number of friends invited him to a dinner at the Albion, and presented him with a testimonial of the value of £500. When in his 92nd year, about eighteen months before his death, Mr. Lawrence extracted the cataract from his right eye so successfully, that he was able to recognise his friends and even to write. He died on August 28, 1835.

At one time it was customary for the Physicians and Surgeons in London to attend at coffee-houses to be consulted,

Sir William Blizard was the last Medical man in the Metropolis who pursued this practice. The house he frequented for this purpose was Batson's coffee-house in Cornhill. When he ceased to lecture he presented the College of Surgeons with his museum, which included 900 specimens.

His father was an auctioneer at Barnes Elms, in Surrey, and his education was much neglected in his early youth. But he taught himself Latin, and some of the sciences; and as a proof of his industry, when 76 years old, he was a regular, indeed he might have been called a constant, attendant on a course of Chemistry given in the evening at the London Hospital by Mr. Richard Phillips, the translator of the Pharmacopœia. He was tall in stature; and his prominent and deeply-marked features were highly suggestive of energy, perseverance, and determination.

THE WEEK.

REMOVAL OF THE WINCHESTER TRAINING SCHOOL.

The Bishop of Winchester has, during the last week, presided at the opening of a new Training School for National Schoolmasters at Winchester. Hitherto these masters have resided at Wolvesey, an ancient palace of the Bishops of Winchester, situated close to the famous Wolvesey Castle (to which, according to the dim light of tradition, the annual tribute of wolves' heads was wont to be brought in the times when that rapacious beast still formed part of the British *fauna*), and whose massive ruins seem to defy time and weather, although they are no proof against the greediness of those unworthy guardians of national antiquities, who allow them to be pulled down in order that the materials may be used up for roads and buildings. This site was occupied by Romans, Saxons, Normans, by the prelates of the middle ages, and their successors down to our own day. It is, doubtless, low, and may be damp; but why is it, as it is said, now discovered to be the seat of typhoid fever and uninhabitable? Because the *excreta* of its inhabitants are allowed to stagnate in neighbouring ditches and streams; and because the rivers are dammed up by millponds? Verily, the reputation of Winchester as a healthy residence is seriously compromised. If the Hospital must be removed, and the Bishop's Palace is too unhealthy for residence, what shall be said of the College? People will take alarm; and at last, when too late, the tradespeople may be induced to submit to the expense of having their town drained.

THE RELATIONSHIP OF TYPHUS AND TYPHOID FEVERS.

The vexed question of the unity or plurality of fever poisons has been revived by Dr. Henry Kennedy, of Dublin, in a memoir published in the last number of the *Dublin Quarterly Journal of Medical Science*, on Typhus and Typhoid as seen in that city during the past two years. From the cases he records, it seems evident that the types recently prevailing in Dublin have been of a kind which could not with certainty be referred to either one or the other form of fever, but rather presented some of the most marked characteristics of both. This was especially observable in the first half of the present year. A large number of cases at that time showed all the characters of typhus, including a dense crop of petechiæ, and to these were superadded diarrhœa in nearly every instance. In the only one of these cases which Dr. Kennedy had an opportunity of examining after death, he found ulceration of the cœcum and first part of the colon; but instances occurred to Dr. Gordon, a Physician attached to a large fever Hospital, in which ulceration of Peyer's glands had taken place, in connexion with well-marked symptoms of typhus, including the petechial eruption. Dr. Kennedy calls special attention to the fact that the kind of ulceration of the ileum met with in typhoid fever is not confined to that disease alone, but occasionally occurs in other diseases of the zymotic class. Flint, Huss, and Anderson, have seen it in patients dying from scarlatina, and the latter in a person who died of confluent small-pox. With regard to typhus and typhoid, the conclusion on which Dr. Kennedy insists is, that the two fevers are the result of a single poison, and that no other hypothesis will explain all the difficulties which his own and the observations of others have raised. It is a curious fact, that the typhoid type, previously rare in Dublin, has been remarkably prevalent during the past two years, a period signalised by a material improvement in the sewerage of that city.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

There are so many more exhibitors, to whom I have not already alluded, whose manufactures are of great interest and importance, that I regret to be obliged to conclude my "Notices" in an early number. I find that there are so many things that deserve a few words of description, that it is far from easy to select the most important of them from the mass that remains. However, I trust to be able, in the next two or three numbers, to bring several valuable inventions under the notice of the Profession, although I shall be obliged to do so in a cursory manner.

And, first, a few words on Class 17, as represented in the Austrian Court. The most remarkable apparatus sent from that country is, undoubtedly, that exhibited by Professor Hebra, of Vienna, by means of which patients suffering from certain diseases of the skin, or burns, or scalds, are kept in a tepid bath for days, weeks, or even months, as may be thought necessary. There is nothing intrinsically new in the fact of a patient remaining for a certain number of hours immersed in warm water. Almost every traveller who has crossed the Gemmi pass, and has stopped at the village of Leukerbad, has probably seen the public bath room, in which patients take a bath of several hours' duration; and I could name many other places on the continent at which a similar practice is followed. But the system of Dr. Hebra is something different from this: he keeps his patients *constantly* immersed in water, not for hours, but for months. I should be glad to hear whether any experiments had been made in order to show if the skin continued to absorb water during the whole period of immersion; whether the quantity of urine increased; whether the skin exhaled the same amount of carbonic acid after the patient had been in the bath for a month, as before he began the treatment; or, in fact, whether the sub-aqueous system interfered in any way with the ordinary functions of life. At any rate, it seems that no remarkable result has attended Professor Hebra's plan of treatment, except that it has cured many cases of inveterate skin disease. I am informed by a Professional friend, that cases of chronic pemphigus and other rebellious affections are entirely removed by an immersion prolonged over some few months, after medicine had been tried in vain for a very long period of time The continual bath seems, however, to be most efficacious in cases of extensive superficial burns, for by its use the great pain which always accompanies this kind of injury is remarkably diminished; it has also been adopted in cases of confluent small-pox, with apparent advantage. The bath itself is six feet in length, three feet in breadth, and is made of wood, lined with copper or zinc. An iron framework accurately fits its interior, and supports undergirths, similar to those of an ordinary bed; at about two feet from one end of this frame a support for the back is attached, which moves on a hinge, and which, by means of a simple piece of rack-work, can be fixed at any angle that is most comfortable to the patient. The whole bed, covered with a blanket and provided with a horse-hair bolster, hangs suspended in the bath by bands fixed to two small rollers, placed one at each end of it; so that the bed can be raised or lowered at pleasure. At the head of the bath, and standing higher than it, is a copper boiler, which regulates the

temperature of the water supplied to the bath. The supply pipe enters the bath at the bottom—the escape pipe leaves it at the water level; when it is in use the stream is constantly running, and all impurities are thus rapidly washed from the surface. In order to keep the face also continually wet, special small tubes, with roses of different shapes, are fixed to the bottom of the boiler, by means of which the face, as well as any other part of the body, can be continually irrigated. No bad result whatever seems to have followed this plan of treatment up to the present time; and, I may add, that four similar apparatus have been fitted up in the General Hospital at Vienna, in order that their use may become more general.

The case sent by Leiter, of Vienna, contains some objects of interest, to which I must allude while speaking of the Austrian contributions to Class 17. Among these is a very ingenious urethroscope for the male urethra, made by Leiter, from suggestions received from Dr. Haken, jun., of Riga. It consists of a bell-shaped piece of vulcanite, so arranged as to throw light down the urethra, which is stretched by the separation of three probe-shaped steel rods. All the urethroscopes that I have yet seen are, at the best, unsatisfactory instruments; but that to which I now allude seems to be as good, if not better, than any other. Leiter has been the means of introducing vulcanite to a considerable extent in the manufacture of Surgical instruments. This material not only has the advantage of being remarkably serviceable and useful for certain purposes, but it has the undeniable merit of cheapness. For instance, this maker can sell a perfectly good trocar and canula for 4s., and he furnishes the same instrument, with the addition of a stop-cock to the canula, for 6s. In both these cases the canula and the handle of the trocar are made of vulcanite. This substance is hard, elastic, and little, if at all, acted on by the various liquids of the body; but Leiter has applied it to certain purposes for which I do not think it well suited. For example, he manufactures the handles of amputating knives of it; its lightness, however, completely destroys the balance of the knife when held properly in the hand, and thus interferes considerably with the comfort of the operator. The same criticism holds good with regard to its employment for the handles of saws. On the other hand, it is a material of which syringes of various sizes can be very well made, as, also, tracheotomy tubes. The adoption of the sous-pape and ball in the last mentioned instruments, by means of which, with the addition of a hole in the convex part of the tube, the patient can speak distinctly, is averred by Leiter to be his own invention. He asserts that the first contrivance of the kind was made by him—that it was taken by an Austrian student to Paris, and copied by the great makers of that city. Whether this was absolutely the case, or whether it was invented simultaneously in both places, I cannot say. It is but fair to Leiter that his declaration should be made known.

He also employs vulcanite in the manufacture of bistoury handles and caustic-holders. The cheapness of the latter is most extraordinary, an excellent instrument, tipped with platinum, being sold for 6s. His appliances for carrying caustic into the larynx are very ingenious and interesting, as resulting from the more general adoption of the laryngoscope. Before concluding my references to the numerous instances in which he makes vulcanite useful, I may mention that he mounts ophthalmoscopes in it, he manufactures the handles of obstetric forceps of it, and, indeed, employs it, on account of its cheapness, in all instances where it can be substituted for other materials without interfering with the really practical value of the instrument. It is matter of regret that this case is so constructed and placed as to render it almost impossible to distinguish any of the instruments in its upper part.

Stelzig, of Prague, is also an exhibitor in the Austrian Court, although his name does not appear in the official catalogue. He has sent over a case of obstetrical instruments, none of which, with one exception, I can speak of in terms of praise. The instrument to which I allude is a pelvimeter, adapted for internal measurement alone. It consists of a curved steel rod, into the extremity of which pieces of steel of different lengths can be fixed. The mode of attachment of each of these pieces to the rod already mentioned is such, that when the instrument is being employed their direction enables the operator to form a tolerably correct judgment of the diameters of the pelvis. Compared, however, to the pelvimeter shown in Nyrop's case (Copenhagen), which I have already described, it seems to be far from being a thoroughly useful and accurate instrument.

Dr. Teichmann, of Cracow, and Professor Hyrtl, of Vienna, exhibit numerous anatomical preparations of great excellence; but although they are placed in Class 17, I can hardly consider them as "Surgical Instruments and Appliances," and I, therefore, shall not attempt to enter into a detailed description of them.

Before I conclude my notice of the contents of the Austrian Court, I feel that I must refer to the cases sent by Dr. Türck, of Vienna, and Dr. Czermak, of Prague. Both these gentlemen exhibit their laryngoscopes; and as the differences between their apparatus is very slight, and as a somewhat fierce discussion has taken place between these rival claimants for professional distinction, I would willingly have avoided any reference to them. But as my series of papers would hardly be complete without some reference to the laryngoscope, I feel that I am bound to do so. I may state, then, that it seems to be a matter of no doubt that Dr. Türck, improving on the instruments employed by Garcia and Avery, was the first that employed a laryngoscope that was suitable for the convenient examination of the larynx.

For some reason, he more or less ceased to use it, and in a short time Dr. Czermak took it up, and has since, undoubtedly, been the chief means of making the instrument generally useful. He originated the arrangement by means of which one person can demonstrate clearly to others the state of his larynx and the action of his chordæ vocales. He first obtained stereoscopic photographs of the interior of the larynx; and I believe that he first described a plan by means of which the posterior nares and upper part of the pharynx can be examined. So that I think that Dr. Türck can justly be said to have been the *first improver* of the instrument, while to Dr. Czermak must be awarded the merit of having rendered it practically useful in the detection and treatment of disease. As I have already said, the differences between the laryngoscopes exhibited by these gentlemen are very slight; and when I have added that the chief of these consists in the fact that the mirrors used by Dr. Türck are oval, while those of Dr. Czermak are square, with the corners slightly rounded off, I think I have said all that need be added on the subject. I may add, however, that while Dr. Türck employs a curiously-shaped pair of forceps for drawing the tongue out of the mouth, Dr. Czermak does it by the help of his fingers and a silk handkerchief. The latter mode, being simpler, is perhaps better.

The only objects exhibited by Russia in Class 17 are a few cases of instruments sent by the Crown Factory. Although they contain nothing which is in the least degree new, the excellence of manufacture displayed in their contents is very great; in all respects they equal similar instruments sent from any other country. On this account I should imagine that they were made by either German or French workmen.

From Portugal the only case sent is by Polycarpo, of Lisbon. There is nothing in it worthy of especial notice.

Stille, of Stockholm, has forwarded a case in which there are a few instruments which merit a short description. Among them I may refer to an ingenious contrivance for applying caustic to the canal of the cervix uteri: a porte-ligature for the treatment of uterine polypi; a very ingenious apparatus for fixing the skull while it is being sawn through, which would be very convenient in all dissecting-rooms; an instrument for perforating the fœtal head, that is furnished with a central screw with an auger-like cutting edge; a good amputating case; and a collection of well-constructed instruments for microscopic work. I should also remark that this maker exhibits a pair of Cederschjöld's long midwifery forceps, which are remarkable for the narrowness of the blades.

The only exhibitors from the Netherlands whose instruments merit attention are Linden and Son (Rotterdam), and Schmeink, Brothers (Arnhem). The former have a case of considerable size, but which does not, as far as I can see, contain a single instrument which can lay claim to the least novelty. Among the objects contained in the cases of the latter may be noticed some very heavy and clumsy artificial limbs; and they are not surrounded by any other apparatus of importance, except the steel frame work of what might be, when finished, a good instrument for certain cases of spinal deformity,

In the Japanese Court is a case of instruments such as those ordinarily used by the Surgeons of that country. They have

been apparently acquainted for a considerable period with the advantage derived from the use of the actual cautery; and I think I am correct in saying that the cauteries sent from Japan are perhaps the only similar instruments in the whole Exhibition. A fistula-knife, the point of which is prolonged into a probe, very similar to that employed by French Surgeons of the past century, is also to be seen in Dr. Meyburg's case; and a pair of obstetric forceps of such small dimensions and shape as would render them altogether useless for the extraction of a fœtus of any European race. Indeed, it is difficult to conceive that they can be of any service even in Japan.

There are some other curiosities in this case to which I should have liked to refer, but the importance of the space I occupy prevents me from doing so. I hope to conclude my "Notices" in an early number, as it is my intention to pass all that remains of Class 17 rapidly under review.

47, Hans-place, S.W.

REVIEWS.

Physiology, and its Aids to the Study and Treatment of Disease. By Edward Dillon Mapother, M.D., Fellow and Demonstrator of Anatomy, Royal College of Surgeons in Ireland; Surgeon to St. Vincent's Hospital. 130 Illustrations. Examination Papers, and a Glossary of Medical Terms. Fcap. 8vo. Pp. 496. Dublin: Fannin, 1862.

This is a short, well-arranged, and well-illustrated little manual of Physiology. It is principally designed for the use of students, who in reading for an examination often find it useful to have a work which concisely explains all the leading fact and theories, and which gives the names of the various authors. Throughout the work there are numerous references to those diseases, whose correct pathology is explained by a knowledge of physiology. The chapter on "The Chemistry of Man" is very well arranged, and contains in a short space a *resumé* of our knowledge on a subject too seldom required from students. In addition to the ordinary matter, the chapter on the kidney contains an account of the urinary deposits and calculi, arranged in a tabular form, according to Scharling. The leading pathological changes in the blood, inflammation, degeneration, and repair, are treated in a separate chapter, the views of Virchow, Paget, and others, being briefly given on still disputed points. There are numerous illustrations, mostly from well-known works, displaying the minute anatomy of the kidney, liver, lungs, and nervous system. The title is perhaps too ambitious, and there are marks of haste in composition, for which the Author pleads his engagements as a teacher and Hospital Surgeon, but nothing of importance is omitted; and the student who is seeking such a work will find this an accurate and useful epitome of physiology, with copious illustrations. It has, moreover, a glossary of Medical terms, with a series of examination papers; and at the end of each question a number denotes the page where the answer will be found.

Neuenahr: a New Spa on the Rhine. By James Miller, F.R.S.E., F.R.C.S.E., etc., Professor of Surgery in the University of Edinburgh, etc.. Edinburgh: Oliver and Boyd. 1861. Pp. 35.

Another new spa! Well, there can be little question that, with Professor Miller's introduction, it will get its share of British patronage, fill the pockets of the hotel-keepers, make the fortune of the resident Physician, and do as much good to those that resort to it as the other spas of its class. Spenser, it will be recollected, tumbles his hero, St. George, into "a springing well," "full of great vertues, and for med'cine good," after his first day's combat with the dragon, who, we suppose, typifies "the world, the flesh, and the devil." He had a tolerably clear idea of the suitableness of spas to the used-up British constitution, and these places are and always will be resorted to with the general object of re-invigorating the system more than for the cure of definite forms of disease. Not that we are in the least sceptical as to their value in the treatment of certain maladies; but, after all, we believe that more is effected in this direction among their visitors. Professor Miller honestly tells us, that his object was simply "to atone for the wear and tear of a season's hard work." With our patron saint,

> —"he upstarted brave,
> Out of the well wherein he drenched lay:
> As eagle, fresh out of the ocean wave,
> Where he hath lefte his plumes all hory gray,
> And deck't himselfe with fethers youthly gay,"

and set manfully to work again for another year. He has done well also to tell us of this new spa before it is quite despoiled of its rusticity, in order that we may enjoy it as he has done. His pamphlet is agreeably written. The following is the analysis of the Victoria spring, the principal one of the place:—

"Bicarbonate of soda	10·80
Sulphate of soda	0·73
Chloride of sodium	0·91
Bicarbonate of magnesia	3·74
Bicarbonate of lime	3·30
Protoxide of iron and alumina	0·10
Silica	0·25
Free carbonic acid	12·86
	32·69 "

It is used both for drinking and baths, and is believed to be useful for similar affections to those in which the Vichy and Ems waters are prescribed. "It is said to possess more carbonic acid, more magnesia, and more lime than either Vichy or Ems, and less carbonate and muriate of soda; its amount of iron is considerable; and its climate is perfect or nearly so. Instead of a bowl, it is a large oval plate or basin, sufficiently protected on every side, yet with breathing room amply free." There is an intelligent resident Physician, Dr. Weidgen, who literally spends all his time at the spa, even sleeping in the hotel.

The Winter Climate of Menton, with Hints to Invalids intending to reside there. By P. C. Price, F.R.C.S.E., &c. &c. Churchill, New Burlington-street.

As the greater part of Mr. Price's little work has already been before the readers of the *Medical Times and Gazette*, it will be unnecessary to do more than notice its re-appearance in a new dress. The author has added to the paper which appeared in this Journal a chapter of hints to invalids—hints as to the best method of getting to Menton, and the best mode of living when there. He tells them the route they are to take, the inns at which they are to stop, the trains by which they are to start, the charges at the *pensions* in which they are to live, and the best places to procure the cod liver oil which they are to swallow. In a very small compass Mr. Price has given a useful and a readable account of one of the best winter residences for the consumptive in Europe. We believe that his little book will command a large number of readers, for it epitomizes all that is necessary to be known by the physician recommending, and by the patient resorting to Menton.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, October 11.

ON POISONING WITH STRYCHNIA.

M. Gallard has recently undertaken a series of investigations on strychnia and its antidotes, the results of which are the following:—Previous to Palmer's trial, and the researches of M. Tardieu on the above subject, very little was known concerning it, and even in recent treatises on Medical Jurisprudence it is dismissed with few words. M. Gallard has collected all the cases hitherto observed, and has come to the conclusion, that a dose of strychnia varying from one to five centigrammes (about one-sixth to four-fifths of a grain) is sufficient to destroy life. One or two centigrammes are enough to give rise to severe symptoms, and, if it is swallowed, two-fifths of a grain are necessary to produce death: if the stomach is full of food at the time of taking the poison, a larger dose than this may not cause any serious consequences: and if it is administered at sufficiently long intervals, much larger doses may be taken with impunity. The commencement and course of the symptoms are very rapid;

either death ensues within a few hours, or a complete cure results after one or a few days, with very rare exceptions. The most prominent symptom is spontaneous tetanic spasms, which are produced at intervals, and are increased or excited by the most trifling noise or contact with the patient. During the time between the injection of the poison and the first convulsive fits the patient is able to walk about. The touch which excites or increases the convulsion is far from painful, and patients frequently request bystanders to take strong hold of them, or to rub them during the spasms. The pupils are always dilated—at least, during the fit; in one instance only has this symptom not been mentioned, but this is, perhaps, due to a want of sufficient detail in the description of the case. The other symptoms and the post-mortem examinations offer nothing peculiar, except, perhaps, cadaveric rigidity, which commences much more rapidly, and is more complete and more prolonged, than under normal circumstances. Much stress has been laid upon the appearance of the heart and the nervous centres after death, but without sufficient reason. Regarding the treatment, M. Gallard has endeavoured to determine by which therapeutical agents the symptoms of the disease may be modified, in order that we may recognise poisoning by strychnia, even when masked by a more or less energetic medication, and also to find out whether there is a really efficacious antidote against this substance. His researches have not embraced the means of evacuating this poison, nor those which may chemically destroy it before absorption has taken place; but he has only experimentally studied the antagonists of strychnia when absorbed, and after those symptoms have already set in which prove that its action on the nervous system has commenced. In order to render the result as certain and precise as possible, he injected into the subcutaneous cellular tissue a concentrated solution of the poison itself, and of the antidotes which have been recommended. Woorara, the properties of which are, according to some, contrary, and according to others, identical (?) with those of strychnia, seemed to him more a curiosity than anything else, as it would not be possible to the Practitioner to procure it in a given case with the necessary celerity, and he has, therefore, omitted to investigate its action.

Morphia and coniine have, in the hands of M. Gallard, not justified the hopes which were entertained of these substances. On the contrary, they have rather accelerated than retarded the death of those animals to which he administered them as antidotes to strychnia. Atropine and inhalations of chloroform have also proved useless; and the only substance which really seemed to have any beneficial effect, was aconitine. An animal which had taken a dose of strychnia sufficient to kill it within ten or eleven minutes, survived two hours, and died at last with symptoms of poisoning by aconitine; another animal, to which a smaller dose of the latter poison had been given, recovered perfectly after half-an-hour; three days afterwards, in order to have an *experimentum crucis*, the same animal was given the same dose of strychnia, after which it died in seventeen minutes. A third animal, however, which was poisoned with $2\frac{1}{3}$ milligrammes of strychnia, died after seven minutes, in spite of the immediate administration of half a milligramme of aconitine, so that the latter cannot be considered an unfailing antidote to the former.

AUSTRIA.

Vienna, October 3.

ON THE MEDICAL USE OF COMPRESSED AIR.

Dr. von Vivenot, whose name is probably known to you by his valuable treatise on "Palermo as a Health-resort," has recently given us his views concerning the influence of an increased pressure of air on persons in health and disease. The periodical and accidental oscillations of the pressure of air, which are shown by the barometer, exert such a subtle influence upon the system, that it has, until now, not been possible to determine it in a scientific manner. In order that this influence may become appreciable, the pressure of air must be considerably augmented or diminished. We have an excellent opportunity afforded us for studying the effects of altered pressure of air, without simultaneous disturbance by altered currents and temperatures, as is always the case in nature, in the new apparatus for compressing air invented by M. Tabarié, which may be used by several persons at the same time, and which has for some years been employed for therapeutical purposes, especially in Paris, Lyons, Montpellier, and Nice. This apparatus is similar to a diving-bell, and has the shape of a hollow ellipsoid, the larger diameter of which is vertical, and the shorter horizontal. The lower third of the machine is buried in the earth, so that that part which is below the level of the ground looks like a bell. In the interior there is a flooring of wood at about the same level as the surface of the ground, whereby the machine is divided into two unequal parts, the larger one of which is occupied by those persons who intend inspiring the compressed air. This floor is carpeted, and the room is furnished with a table and chairs. The bell is formed of iron, and can bear treble such pressure as that which is employed; its inner walls are covered with silk, and it is furnished with glass windows one inch thick, partly for lighting the interior, so that the patients may read and write, and partly to enable the man who has the charge of the steam-engine outside to inspect the manometer, by which the increase and decrease of the pressure of air may be regulated. The door for entering the bell is on a level with the floor. Both door and windows open inside, and are seamed with caoutchouc, so that, as the pressure of the air is greatest inside, an hermetical closing is effected. By means of a small chamber which is connected with the entrance of the bell, and which may be opened and closed by means of a valve, without altering the pressure of air inside the apparatus, persons may pass in and out; and for small objects, a niche in the wall is constructed on the same principle.

Outside the bell is a steam-engine of 12-horse power, by which the compressed air is continually forced through a tube into the apparatus. This air again escapes through another tube, which is closed by a valve at the opposite end of the bell, so that the patients continually breathe an atmosphere, the chemical composition of which is always wholesome, in spite of the exhalation and expiration of the persons inside, and which is only distinguished from ordinary air by its increased density. That the ventilation is thorough, is established by the fact, that the engine can propel 80,000 litres per hour.

In order to avoid unpleasant accidents, the air within the machine is not compressed to the maximum at once, but the pressure is only gradually increased during half an hour; so that patients, who are generally ordered to remain in the bell for two hours, are exposed, in the first half hour, to a gradually increasing pressure, then for an hour to the maximum density, and for the last half hour to a gradually decreasing pressure. The highest pressure employed in this bell amounts to $1\frac{1}{5}$th atmospheres, *i.e.*, 912 millimetres. There is, however, another kind of machine in which the pressure may be increased to $1\frac{2}{5}$ths, *i.e.*, 1064 millimetres; this is much smaller, and only allows the presence of two or three persons at the same time; its steam-engine furnishes 45,000 litres of air per hour. The two machines cost altogether £2000. In Nice the patients pay six francs for each sitting of two hours, or by subscription, 150 francs for thirty sittings.

The original machine has recently been improved by Dr. Lange, of Johannesberg, who has suggested for it the shape of a cylinder, instead of an ellipsoid, whereby less material is required, and the cost of the apparatus becomes much decreased.

The observations made with this machine by Dr. von Vivenot, while at Nice, show that compressed air gradually retards pulsation and respiration, especially in persons in whom the rate of both is increased. This retardation persists for a considerable time after the patient has left the machine. The maximum retardation of pulse observed by Vivenot was 18, and by Tabarié, 35 to 45; at the same time the evaporation from the skin and lungs is diminished. The secretion of the mucous membrane of the lungs, if there is any such, is decidedly diminished, while the secretion of the kidneys is enormously increased. There are no very peculiar sensations felt, except an increased pressure upon the membrana tympani, which may become painful, and even cause temporary deafness. Compressed air should be employed chiefly in diseases of the heart and respiratory organs, in which beneficial results have been obtained with it, especially by Messrs. Tabarié, Pravaz, Hervier, St. Leger, and Bertin.

The Hartley Institution at Southampton, of which Dr. Bond is Principal, was opened by Lord Palmerston on the 15th inst.

GENERAL CORRESPONDENCE.

THE EXAMINATION IN ARTS AT THE APOTHECARIES' HALL.

Letter from Dr. T. Ansell.

[To the Editor of the Medical Times and Gazette.]

Sir,—An impression having gone abroad among Medical students that the Examination in Arts, held at this hall, is not recognised by the College of Surgeons, I will be obliged to you to give an explicit contradiction to it.

The error has arisen, I believe, from an inadvertent omission in the printed regulations of the College, which will be supplied in future issues.

In the meantime, I have the authority of the President of the College for stating—That all students who have passed the Preliminary Examination at this Hall may now register at the College.

I am, &c.

Thomas Ansell, M.D.,
Chairman of the Court of Examiners.

Apothecaries' Hall, London, E.C., October 13.

ON THE DISTINCTIVE CHARACTERS OF THE BRAIN IN MAN AND IN THE ANTHROPOMORPHOUS APES.

Letter from Professor Rolleston.

[To the Editor of the Medical Times and Gazette.]

Sir,—As your Journal of last week contains the fullest account of the recent controversy relative to men and apes which has yet appeared, I send this communication to you, asking you to give it insertion in your next number. My letter to you will fall into three great divisions. First, I shall give as full and faithful a report of my own speech at Cambridge as my notes and my memory will enable me to give. Secondly, I shall rectify certain misconceptions into which it is not impossible the general public may have fallen; and, thirdly, I shall attempt to show that the position which your report shows me Professor Owen has now taken up, will prove to be as little tenable as those which a comparison of that report with his printed writings shows me he has given up.

In my speech at Cambridge, on October 3, I strove to draw the attention of the Zoological Section to two points. I stated, firstly, that the facts insisted upon by Professor Huxley were supported by the evidence of the photographic process, alluding herein to the April and July numbers of the *Natural History Review* for 1861, in which such photographs are to be found; and referring, further, to a lecture of my own, delivered at the Royal Institution in the January of this year, and printed in this Journal February 22 and March 15. Secondly, I said that, without employing that analysis of the brain's convolutions which we owe to Gratiolet, it was impossible to differentiate the brains of man and of the apes fully and fairly. Professor Owen himself had spoken (*Linnean Society's Proceedings*, ii. 5, 1857, p. 20) of "the determination of the difference between Homo and Pithecus, as being the anatomist's difficulty:" and I might have added, that not only had Buffon and Tyson made similar assertions, but that Linnæus himself (*Fauna Suecica*, Præf. 2) had said, "Nullum characterem hactenus eruere potui unde homo a simia dignoscatur." It was plain, therefore, that the differentiation of the human from the simious encephalon was not such an easy matter as many persons might suppose, and that it was not *primâ facie* absurd to say that it was but recently, and not long ago, that the means for effecting this differentiation had been discovered. I compared what Gratiolet had done for the anatomy of the brain with the work of Adams in astronomy, and of Max Müller in language, and I said that, without a reference to his writings, it was impossible for a lecturer on this subject to treat either it or his audience fairly. I then proceeded to show that this analysis had enabled us to point out great differences, and widely-swerving characteristics, which the rough and empirical methods of ordinary brain anatomy were wholly incompetent to reveal to us. On Mr. Darwin's principle of the great importance of rudimentary organs for classificatory purposes, which the schoolmen had expressed in the wider words, "*Nusquam magis quam in minimis tota est natura*," and which we might express in plain English by saying that "Small things spoke plainly of great issues," the general public had been right in clinging to such a structure, as was the hippocampus minor, as a mark and means for differentiating man and the apes. As, however, this nodule of neurine had been rent away from their hands, it was right that something should be supplied to take its place. Gratiolet's analysis supplied us with several such points; but two great points of difference, the great absolute weight, and the great absolute height of the human brain, we could detect without having recourse to his method. Two other points, the presence in the apes of a deep cleft, "the external perpendicular fissure," in the posterior part of their hemispheres, and the great complexity and evolution of the frontal lobes in man, were spoken of as possessing even greater morphological value; and for the rational expression of these differences we were indebted to M. Gratiolet. In the hurry of a *vivâ voce* debate I omitted to mention the enormous preponderance of the human over the simious corpus callosum.

Professor Owen, in reply to my observations, said that, so far from having neglected the subject of the convolutions and their homologies, he had, so long as thirty years ago, or thereabouts, described, figured, and numbered the convolutions of a chetah (*Felis jubata*) in the first volume of the Zoological Society's *Transactions;* and that in the College of Surgeons there might be found diagrams of his in illustration of lectures delivered upon the very subject in question. I saw at the time that this statement might lead to some misconceptions; but as the general public could not fail to feel itself aggrieved in not being treated to the best information which was to be had upon this subject, and as Professor Owen had omitted to supply them with this information, the value and importance of which he acknowledged, I forbore any attempt at self-vindication before a somewhat promiscuous assemblage, whose limited information might unfairly prejudice them in my favour. It is, however, but just to myself, when addressing an audience of experts through the medium of your columns, to take the opportunity of setting myself right as to matters of anatomical fact, which the company assembled in Section D. were scarcely competent to judge of. It is not too much to say, that to speak of the convolutions of such a creature as the hunting leopard as being a key or clue to the reading of the convolutions of the Quadrumana or of man, is much the same thing as it would be to tell a man who had just mastered the Greek alphabet, that he would now find the deciphering of an Arabic manuscript quite an easy task. The carnivorous hemispheres and the quadrumanous are scored over with fissures and anfractuosities, as the pages of Xenophon and those of the Koran are with letters; but there is no closer connexion, no nearer genetic affinity, between the two sets of convolutions than there is between the two sets of alphabet characters.

The exterior surface of the brain in the carnivora and in the carnivorous cetacea presents usually three, or sometimes four, semicircular convolutions, concentric with a Sylvian fissure. One or more of these half-hoop convolutions may be connected with the one next to it by a bridging convolution; and in some carnivora one of the outer semicircles may have its posterior segment broken up into two branches. Together with a small lobe, which I would call supra-olfactory, and another which may be named supra-ciliary, both of them lying in front of the "crucial fissure" of Leuret, these semicircular convolutions occupy the entire external surface of the hemispheres. It is impossible to conceive a more simple arrangement, or one, as a reference to your Journal for March 15, 1862, will show, more wholly alien from that prevailing throughout the quadrumanous series. Further remarks of my own upon this subject I must reserve for a paper upon the entire subject, the materials for which I have for some months back been preparing; but I will herewith adduce the authority of others in support of the doctrines I have here put forward. The purport of my remarks has been to say that it is impossible to establish any homologies between the convolutions of the carnivora and those of man and of the apes. Attempts to do this have been made, and to the success which has attended them we will hear Professors Reichert and Wagner speak. It is acknowledged now on all hands that, for the establishment of homological relations, the history of development alone can furnish conclusive evidence. Professor Huschke, however, of Jena, though fully acknowledging the truth of this ("Muss man genetisch zu Werke gehen," Hirn Schädel und Seele, Jena, 1854, p. 130), tells

us, seven pages further on, "The longitudinal convolutions, which I have called primary convolutions in the mammalia, become obscure in the human brain, as the great transverse central convolutions"—those on either side the great fissure of Rolando—"have forced themselves in like a wall between them, and have entirely broken into pieces the horse-shoe they form at the point of the convexity of the arch." We will now give Wagner's comments upon this, from his "Vorstudien," an excellent, though short, treatise upon the convolutionary system. He says, at pages 17 and 18, that Huschke was led to certain views as to the homologies of the human frontal lobes, by the analogy of the structures in the carnivora, particularly the cats, and by his "Naturphilosophische Tendenz Morphologie *von welcher die Entwickelungs geschichte des Gehirns beim Menschen und den affen nichts weiss.*" Wagner proceeds to add in a note—"It is, as already remarked, almost incomprehensible that Huschke, considering his sound views on other points, should yet never be able to free himself from that analogy-hunting of the first decade of our present century." "Analogy" is here used for what we usually term "homology." It is fair, however, to Huschke to say that he cannot, considering that he speaks of the Feline convolutions as being obseure, and their semicircular arrangement as wholly broken up—"*völlig zersprengt*"—be held to teach that these simple primary convolutions would furnish a sufficient clue to the interpretation of what he calls the "darmahnlicke chaos" of the human convolutions. Into this chaos, which he says Arnold had confessed to have baffled his power of analysis, Huschke may fairly claim to have introduced something like system; this claim he makes in page 130; and but for the appearance of Gratiolet's work simultaneously with his, in 1854, the glory of having supplied the anatomical world with a much-needed, and now much employed, instrument for analysis, would have rested with the professor at Jena rather than with the savant of Paris. The small resources, however, of an inland town, such as Jena, in a non-maritime country, have, in conjunction with his "Naturphilosophische Tendenz Morphologie," put Huschke and his work at serious disadvantage in competition with M. Gratiolet.

Higher authority upon the anatomy and homologies of the brain than is that of Professor Reichert, of Berlin, cannot be adduced; and with a quotation from his splendid work upon that organ I shall close this subject:—

"Huschke (Schädel Hirn und Seele, etc. 1854, p. 130) rightly avers that researches to refer the primary and secondary convolutions of the human cerebrum to a common simple type must begin with the consideration of development, and refer to the results which the history of the development of the fœtus and of the animal kingdom furnishes. Up to this time it has been by comparative anatomy researches only that attempts have been made to resolve the problem." (Leuret, Baillarger, Foville, and Huschke.) "Leuret," (Anat. Comp. du System Nervi, 1839,) "whom Huschke also has followed," (in spite of knowing better, as it appears,) "was induced, in consequence of these researches, to consider the four convolutions which surround the fissure of Sylvius in the dog's brain as the first stage of development of the gyri on the convex surface of the cerebrum in man, and to take this as a plan for arranging the complicated system of the human convolutions. *It has meanwhile been shown that the arrangement and form of the primary convolutions on the convex surface of the hemispheres in the human fœtus do not coincide with the convolutions on the hemispheres in the same position in the dogs and cats.*" (Der Bau des Menschlichen Gehirns. Von C. B. Reichert. Berlin, 1859. P. 78. Zweite Abtheilung.)

Professor Reichert's beautiful Plates xi. and xii. afford abundant evidence of the truth of his last sentence. The homologies of the convolutions of the Carnivora and the Quadrumana are not the first, nor will they be the last, homologies which a history of development has swept, and will sweep, into the limbo of vanity.

Proceeding now to my third point, I shall endeavour to show that Professor Owen's present position is as untenable as those which he now seems to have given up, and that the posteriorly and freely-projecting ends of the hemispheres, extending "not merely over, but farther back than the cerebellum," will as little serve the purposes and satisfy the instincts of the general public as did the hippocampus minor, the posterior cornu of the third lobe. (See Linnæan Society's *Proceedings*, ii., 1857, pp. 19, 20, or *Reade Lecture*, p. 26.) I will first adduce some craniological considerations; secondly, I will bring forward the evidence which the skull contents furnish; and, finally, I will quote authorities in favour of my views.

If the freely-projecting apex of the hemispheres is distinctly anthropomorphic, and if an essential characteristic of a human brain is furnished to us by this nodule of nerve-matter, then not only will the claim of the unfortunate microcephali to be considered members of the human family at all, be wholly put out of court, but the right of the brachycephalic varieties of our species to call themselves men in the same sense as the dolichocephalic will be most seriously imperilled.

There is no one dimension in which normal and abnormal skulls differ more *inter se* than in the very dimension of the longitudinal occipital arc, which has its size dependent upon the greater or less development of these very posterior segments of the cerebral hemispheres, the so-called lobuli interparietales of certain anatomists. Virchow (Gesammelte Abhandlungen, p. 916) has shown, that whilst the longitudinal diameters of frontal bones may vary within such limits as the figures 2·94 represent, and those of the parietals within such as 2·74, the occipital arc alone attains such a range of oscillation as a possible difference of 4·17 represents. These cranioscopic figures speak for themselves. I find Wagner, in the second part of his "Vorstudien," already referred to, at p. 57 speaking to the point of this oscillation and variability, and illustrating it by examples, which must possess a great interest for all men of science. "In Gauss, the celebrated mathematician, whose brain Wagner has figured, lettered, and numbered after Gratiolet's analysis, the tips of the hemispheres projected more considerably beyond the cerebellum than they did in the other Germans I have examined. In no race of mankind, not even in the brachycephalic Russians, do I find, *as Retzius did*, a projection of the cerebellum beyond the posterior lobes of the cerebrum." Surely, the public will do well to hesitate before it stakes its materialistic faith upon the anthropomorphic character of a lobule of nerve substance, the very existence of which we learn that Retzius denied in such a race as the Russian. Though it would be hard to find better authority than that of the lamented Retzius, we need not rest satisfied with even his authority in ethnology and cranioscopy. Any person who has the opportunity of observing large series of Turanian crania will testify to the surprise with which at first he looked, whether in the living head or in the dry skull, at the vertical occipital region. This verticality depends not upon curtailment of cerebellum, but upon curtailment of the posterior apical lobules of the cerebral hemispheres.

The cranial contents are more movable than the cranial walls, but with proper care they give as fixed results. It is but a small act of courtesy to the University of Cambridge, which, by a ludicrous error in the *London Review* of Saturday, October 11, I have been represented as vilipending, to say that in their Museum as excellent a cast of the human brain is to be found as can be desired. It was not, however, this last which Professor Owen exhibited at Cambridge on October 4, but some other. That it is not an easy nor a common thing to get a good cast of such a structure as a human brain, this self-same Cambridge Museum shows us; for side by side with the excellent cast of which I have spoken are two others, neither of which, as a comparison of it with a vertically-bisected cranium will show, can be taken as accurately representing the shape of the brain during life. Of the exactitude with which the third cast reproduces the true relations of cerebrum and cerebellum, a glance will convince every one, either with or without a section of a cranium by way of comparison. Members of my own University, and any one else who takes any interest in this subject, can put themselves into a position o pronounce upon the merits of the question by a visit to our Museum and its series of preparations in illustration of the nervous system. Casts of the crania of the gorilla, of the chimpanzee, of the orang, and of man, may there be compared together, and the brains of the three latter subjects of investigation submitted to examination. It will be seen that it is laterally, rather than antero-posteriorly, that the cerebellum of these and other apes becomes uncovered when it is uncovered at all; but the great differences which Gratiolet has enabled us to point out, and describe, and understand, will relieve the visitor from all uncomfortable feelings which a discovery of the true relations of the posterior cerebral lobes might otherwise possibly have excited. Our cast of the gorilla's cranium we owe to the kindness of Dr. Gray, of the British Museum;

and it is, I may add, a *fac simile* of the one exhibited by Professor Owen at Cambridge.

Wagner, *l. c.*, tells us that in the orang-utang the cerebrum overlaps the cerebellum by about 8 millimetres; in the new-born child about 20 millimetres. This base half-inch of advantage is diminished to one-tenth of an inch when the chimpanzee is compared with the human adult. In the *Natural History Review* for July, 1861, Professor Marshall tells us (p. 302), "In the ape the cerebellum is overlapped by the cerebrum to the extent of $\frac{5}{10}$ths of an inch, and in the human brain by $\frac{6}{10}$ths of an inch; in other words, by about $\frac{1}{9}$th of the total length of the cerebrum in the chimpanzee, and by only about $\frac{1}{11}$th of that measurement in man." Further on we find Professor Marshall saying (p. 304), "The deficiency of the chimpanzee's brain is most marked in the vertical radius, next in the parietal, then in the frontal, and *least of all in the occipital.*" (See also pages 305 and 307.)

With a most important extract from the "Histoire Naturelle Générale des Règnes Organiques," by the late M. Isidore Geoffrey Saint Hilaire, I shall conclude this subject, premising that, as this work appeared in 1856, whilst Professor Owen's paper, now so frequently referred to, was read before the Linnean Society in February and April of 1857, chronological, if no other, considerations preclude the supposition that the French Professor was actuated by any desire to put himself in opposition to Professor Owen:—

"Si de l'homme à plusieurs de ces animaux il existe pour la disposition relative du cerveau et du cervelet des différences tres marquèes, *elles sont*, fait digne d'attention, *en sens inverse de le qu'on pourrait prévoir.* Jamais dans la grande famille des singes les caractères humains ne sont effacés affaiblis; ils y sont quelquefois amplifiés exaggérés par rapport à l'homme luimême. Chez les saimiris les singes à cerveau si pauvre en circonvolutions mais si volumineux, les hémisphères n'atteignent pas seulement en arrière le bord postérieur du cervelet, ils le depassent de beaucoup; d'un cinquième environ de la longueur totale de l'encephale. Tellement qu'une classification établie a le point de une particulier donnerait le singulier ordre sérial; au premier rang les säimiris seuls, chez lesquels les hémisphères cérébraux s'etendent postérieurement au delà du cervelet; au second *tous les autres singes, et avec eux l'homme chez lesquels les hemispheres se terminent au dessus;* au troisième un grand nombre de mammifères chez lesquels ils s'arrêtent *en decà* de le même organe. Groupe apres lequel la serie serait naturellement continuée par les mammiières, ou le ne sont plus seulement les lobes cérébelleux, mais aussi les lobes olfactifs qui se dégagent et viennent apparâitre à la face superieure de l'encéphale, et enfin par cette multitude d'animaux de diverses classes chez lesquels les lobes optiques font à leur tour intermediairement ce qu'avait fait le cervelet en arrière et les lobes olfactifs en avant." In a note, M. I. G. St. Hilaire added, in 1856:—"Le dégagement successif des deux lobes encephaliques a été parfaitement mis en lumière par M. Serres dans son Anatomie Comparèe du Cerveau. Voyez, entre autres passages, le Tome ii. p. 552, et suiv." I cannot be expected to be acquainted with the different sets of diagrams which the College of Surgeons may possess; but as I am content, with Professors Reichart and Wagner, to hold that all attempts to homologise the primary convolutions in different orders of mammalia are essentially futile, this is of the less consequence.

I may say, in conclusion, that it has always been clear to me that the true relation of man's body to his soul, to the world in which he lives, and to the Governor of it, can never be fully elucidated either by physiological or psychological researches, nor yet by both combined. The saying of Favorin, viz.—

> "On earth there is nothing great but man;
> In man there is nothing great but mind"—

may be taken as an adequate expression of the results in which such researches by themselves would land and leave us. Nor need we, when writing, as men of science, add anything to this dictum of a pagan philosopher. But, thinking in our privacy, as Christian men, we feel that this expression no longer covers all the facts within our knowledge, and that events, now nineteen centuries old, necessitate some modifications of it.

I am, &c.

George Rolleston, M.D., F.R.S., Linacre Professor of Anatomy and Physiology, and lately Fellow of Pembroke College, Oxford.

Oxford, October 14.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

On Wednesday, the 1st inst., the prizes awarded in the last session at the Liverpool Royal Infirmary School of Medicine, Dover-street, were distributed by the Worshipful the Mayor (Robert Hutchison, Esq.), and the introductory lecture of the session now commenced was delivered by Dr. E. Whittle. Among those present were Dr. J. Cameron, Physician to the Southern Hospital, Lecturer on the Principles and Practice of Medicine; Mr. F. D. Fletcher, Surgeon to the Liverpool Workhouse Hospital; Dr. Waters, Physician to the Northern Hospital; and Dr. Graham, Lecturer on Anatomy; Dr. Edwards, Chemistry; Mr. Batty, Midwifery; Dr. Birkbeck Nevins, Materia Medica; Dr. Whittle, Medical Jurisprudence; Dr. Taylor, Ophthalmic Surgery; and Mr. Snape, Dentistry. There was a full attendance of the students.

The Mayor, on taking the chair, said:—I am happy to offer to you my hearty congratulations upon the success which continues to attend the labours of the Lecturers in this School of Medicine. From all I have been able to learn, there has been going on, during some years past, a progressive improvement in the affairs of this Institution. The number of your pupils continues, I am informed, fully up to the average, whilst the proficiency and attainments of your pupils are such as fully to maintain the reputation which this school has acquired amongst the Medical schools of the country (applause). You, gentlemen, will be best able to form an opinion of the advantages which the establishment of such schools in our midst have been to the community at large in a Professional point of view. But, for myself, I consider the establishment of these provincial Medical schools has been of incalculable advantage to Medical students, not only in the assistance afforded to them in the prosecution of their studies, but in a moral and social point of view, as affecting the formation of the character of those who have at a later period of life to play so important a part in our social economy.

Dr. Whittle proceeded to read the introductory address of the Session. He observed that Medicine had neither woolsacks nor mitres to offer as rewards; but on the other hand it had the advantage of being often able to do that which neither of the other Professions could, and of being equally useful and appreciated in all parts of the world; and to an honourable and industrious man it was sure to afford at least a competency. To those who, discarding mere monetary considerations, pursued knowledge and truth for their own sakes, Medicine afforded peculiar advantages, as its study embraced the whole range of natural science, and each could choose according to his taste the particular subject which he intended exclusively to study. In the course of their Profession they would be expected to give sensible opinions upon a great diversity of subjects, and their success would be in proportion to the ability with which they satisfied the great exactions of the public in this respect. They must expect after all to sometimes receive nothing but ingratitude in return for the care and skill bestowed. Dr. Whittle impressed upon his hearers the importance of having fixed principles upon which to base their progressive studies, to which principles they could refer in all cases, and by which they would be enabled to understand the phenomena around them. In illustration he traced the common origin of different parts of plants, and the similarity in certain points of plants of different species; and, taking the animal kingdom, showed how different organs branched off as it were from a common origin, and how the same bodily functions were performed, although by different modes, by all animals, of whatever genera, from the zoophyte up to the warm-blooded mammal. By adopting the principle he had referred to they would simplify labour by bringing everything around a common centre, and thereby be enabled more readily to analyse the phenomena presented to view; and at the same time they would not lose sight of the immense diversity which existed amongst what, in the mass, might be considered unity. Dr. Whittle concluded an address of great length by advising his hearers to devote their attention to study before the duties of active Professional life prevented them.

The prizes were distributed as follows:—Senior Anatomy: Mr. W. Cross and Mr. G. Griffith, certificates. Junior Anatomy: Mr. J. H. Gornall silver medal; Mr. Warburton and

Mr. Leigh, certificates. Surgery: Mr. Nash, silver medal; Mr. J. M. Johnson, certificate. Medicine: Mr. Nash, silver medal; Mr. J. M. Johnson, certificate. Chemistry: Mr. Visick, silver medal; Mr. Houghton, certificate. Practical Chemistry: Mr. J. H. Gornall and Mr. Griffith (equal), prize of books. Midwifery: Mr. Warburton, silver medal; Mr. Lowndes, certificate. Materia Medica: Mr. J. H. Gornall, silver medal; Mr. Houghton, certificate. Medical Jurisprudence: Mr. Cross and Mr. Lowndes, prizes of books. Pathology: Mr. Irvine, silver medal; Mr. Cross, certificate.

The Mayor again addressed the assembly, and said—I trust it will not be deemed foreign to the occasion if I say a few parting words to the young friends whom I see before me. And, first, let me offer my sincere congratulations—and I am sure I may add of this audience—to those students who have been successful in securing the prizes at this examination. Not only to yourselves, but to your relatives and friends, who take a deep interest in your welfare (and they are many), the success which has crowned your efforts to distinguish yourselves must be a source of the highest gratification. To those students who have not been so successful as their fellows in obtaining prizes, I would say, be not discouraged; though all run, one only can obtain the prize. I am gratified to be able to state, that I am credibly informed many of the pupils who have not gained prizes have, nevertheless, in the result of their examinations, given assurance of great future promise. (Applause.) There is one other class of students to whom I would venture to offer a few words of encouragement. It is that class who have not possessed sufficient confidence to go in for an examination for honours and distinction. I would earnestly entreat those of my young friends who are in such a case not to be disheartened. Application, and perseverance, and a firm determination to excel, never fail. In consenting to speak a few words to the body of Medical students present collectively, I would remember that I address the nurslings of a noble profession—a class from whom spring some of the finest specimens of cultivated intellect that a generation can produce—a class to whom the health of our fellow-citizens will be hereafter entrusted—a class who will share our joys, commune and sympathise with our distresses, and see the bared workings of the human heart, as, by a moral anatomy, in those moments when concealment is hardest, when death is nigh at hand, or bereavement has torn away those who were near and dear to us,—a class, therefore, whose power and influence, for good or evil, can scarcely be overrated. I cannot, therefore, too earnestly urge upon you ever to bear in mind the high destiny to which you are called, and the importance of never losing sight of the momentous position for which you are in training, whilst you are pursuing your professional studies. To the student of a thoughtful, philosophical, and investigating turn of mind in any profession, but more particularly in yours, there is presented that master-heresy of the mechanical and inventive age in which we live,—the heresy of dealing with man as a mere piece of materialism. I fear that this mischievous opinion has a strong hold on the mind of many Anatomists, and lies at the root of much popular infidelity. The habit of dealing with the material properties of human nature, of examining the manner in which we are acted upon by mechanical forces, of tracing certain functions to their apparent origin and source, is apt to lead the intellectual student, by its plausible appearance, its fascination, its beguilement of the imagination, and a logic so delicate and subtle that we can hardly trace its process, to imagine that man is a mere mass of well-compacted earth; and unless the inquiry be pursued in a reverent and religious spirit, it has a tendency to land the superficial, and especially the evil-disposed, in a withering and blighting scepticism. It is scarcely necessary to add that such a course of reasoning undermines the first principles of moral duty, and lends its aid to every corrupt and degrading passion. It especially behoves, therefore, our young Medical students to be on their guard against the temptations to a jaundiced and wrong course of reasoning and thought, which the manipulations and investigations naturally incident to their studies too often lead them, and which, if not pursued in a becoming and reverent spirit, will infallibly lead to scepticism and infidelity. I hold it, however, to be a great advantage, as a corrective to such baneful effects upon the character of the man as those which I have faintly shadowed forth, and one of the most important features of this Institution, that it enables young men to prosecute their studies in Medical Science whilst still residing under the eye and guardianship of their parents and friends; and thus, whilst enjoying the succour and the solace of the paternal roof, to be removed, as far as may be, from the full force of those temptations to which the isolated student is peculiarly exposed, when removed far away from those wholesome and endearing restraints, which the affectionate ties of a well-regulated family, and those only, can effectually supply.

MEDICAL NEWS.

University of St. Andrews.—List of gentlemen on whom the Degree of Doctor of Medicine was conferred in October, 1862:—

Edward Ablett, M.R.C.S. and L.A.C., London; William H. Ackland, M.R.C.S. and L.A.C., Bideford, North Devon; James Adams, L.R.C.P.E. and Lic. Fac. Phy. and Surg. Glasg., Brechin; Fred. F. Andrews, M.R.C.S. and L.A.C., London; Lewis C. Badcock, M.R.C.S. and L.A.C., Camberwell-grove; Herbert Baillie, F.R.C.S. and L.A.C., London; Thomas Ballard, M.R.C.S. and L.A.C., London; John J. Barrett, M.R.C.S., London; Henry F. Bate, M.R.C.S. and L.A.C., London; James V. Bell, M.R.C.S. and L.R.C.P., Rochester; George Berwick, L.R.C.S. Ed., L.R.C.P. Ed., Sunderland; Thomas K. Bevan, M.R.C.S. and L.A.C., Carmarthen, S. Wales; Thomas Birt, M.R.C.S. Ed., L.R.C.P. Ed., Leamington; Thomas Blanshard, L.A.C., London; John A. Bolton, M.R.C.S., L.R.C.P. Ed., and L.A.C., Leicester; William Bone, M.R.C.S. and L.A.C., Bures, Suffolk; Thomas Bourne, M.R.C.S. and L.A.C., Radstock, Bath; Charles H. Braddon, M.R.C.S. and L.A.C., Upton-on-Severn, Worcestershire; John D. Bradley, M.R.C.S.I. and L.M., Tullamore, Ireland; Robert S. Braine, M.R.C.S., Halifax, Nova Scotia; Charles Brainsford, L.A.C., Haverhill, Suffolk; Thomas Britton, L.A.C., St. Thomas's Hospital; George B. Brodie, M.R.C.S., L.R.C.P., London; Charles Browning, F.R.C.S. and L.A.C., London; George M. Brumwell, M.R.C.S., L.R.C.P. Ed., and L.A.C., Mossley, Lancashire; Fred. J. Butler, F.R.C.S., Winchester; John W. Carpenter, M.R.C.S. and L.A.C., London; William Chessall, L.A.C., London; William F. Cleveland, M.R.C.S. and L.A.C., London; Thomas H. Cockcroft, M.R.C.S. and L.A.C., Heighley, Yorkshire; Cecil C. Cogan, M.R.C.S. and L.A.C., Greenwich, Kent; William F. Coles, M.R.C.S. and L.A.C., Cerne-Abbas, Dorset; Edmund H. Condon, L.R.C.S.I., Odiham, Hants; William Connolly, M.R.C.S.I. and L.A.C., Royal Navy; Samue K. Crawford, L.R.C.S. Ed., Lurgan, Co. Armagh; Frederick Davies, F.R.C.S., London; Thomas Dobson, M.R.C.S. and L.A.C., Bowness, Windermere; Thomas Dry, M.R.C.S., London; James Edgcome, M.R.C.S. and L.A.C., London; James Edmunds, M.R.C.S. and L.R.C.P., London; Morgan J. Edwards, M.R.C.S. and L.A.C., Guy's Hospital, London; Edward Ellis, L.A.C., London; Duncan Farquharson, L.R.C.P. Ed. and L.R.C.S., Tillicoultry; William H. Farrington, M.R.C.S. and L.A.C., London Fever Hospital; Luke Fisher, M.R.C.S. and L.A.C., Preston, Lancashire; John S. Fletcher, M.R.C.S. and L.A.C., Manchester; Joseph Frain, M.R.C.S., L.R.C.P. Ed., and L.A.C., South Shields; Stephen H. Games, L.R.C.S. Ed. and L.A.C., Liverpool; Ashton Godwin, M.R.C.S., L.R.C.P., and L.A.C., Bromptou, London; James Golder, L.R.C.S. Ed., Pollokshaws; Thomas Green, M.R.C.S. and L.A.C., Cambridge; Samuel Griffith, M.R.C.S. and L.A.C., Portmadoc, N. Wales; Christopher Hall, M.R.C.S. and L.A.C., Swadlincote, Derby; Charles H. Harvey, M.R.C.S. and L.A.C., London; John Harvey, L.A.C., London; George I. Hearder, L.R.C.S. Ed., Edinburgh; James Hislop, Lic. Fac. Phy. and Surg. Glasg., Glasgow; William J. Hodgson, M.R.C.S. and L.A.C., Snaith, Yorkshire; William C. Horgan, Lic. Fac. Phy. and Surg. Glasg., and L.A.C., Drogheda; Thomas Horner, M.R.C.S. and L.R.C.P. Ed., Stoke Newington; Francis Howard, L.R.C.S.I., Black Rock, Dublin; Theodore K. Hubert, M.R.C.S. and L.A.C., Dunstable; R. Hughes, M.R.C.S. and L.A.C., Conway, N. Wales; Thomas Hughes, M.R.C.S. and L.A.C., Anglesea; Robert E. Huntley, M.R.C.S. and L.A.C., Yarrow, near Newcastle; Amos Ingham, M.R.C.S. and L.A.C., Haworth, Yorkshire; Samuel T. Jephcott, M.R.C.S. and L.A.C., Chester; Thomas Jones, M.R.C.S. and L.A.C., Ross, Herefordshire; John R. Kealy, M.R.C.S. and L.A.C., Gosport, Hants; Robert C. Kersey, M.R.C.S. and L.A.C., Littleborn, Kent; Joseph Lancaster, M.R.C.P.L., F.R.S.E., and L.A.C., Cliftou, Gloucestershire; Herbert G. Lee, M.R.C.S., London; Bryan Lister, M.R.C.S. and L.A.C., Littleborough, Lancashire; William Logan, M.R.C.S., Co. Autrim, Ireland; William Lomas, M.R.C.S. and L.A.C., London; Walter Mackern, M.R.C.S., London; George W. M'Nalty, L.R.C.S.I., Dublin; William J. Mallet, M.R.C.S. and L.A.C., Manchester; Maxwell T. Masters, M.R.C.S. and L.A.C., London; Robert Meadows, L.A.C., King's College, London; William W. Morgan, M.R.C.S. and L.A.C., Newport, Monmouthshire; George Moore, M.R.C.S. and L.A.C., Hartlepool; Hugh Moss, M.R.C.S. and L.A.C., Congleton, Cheshire; John B. Mulock, M.R.C.S., London; Stephen Nesfield, M.R.C.S. and L.A.C., Manchester; Thomas Newby, M.R.C.S. and L.A.C., Great Grimsby, Lincolnshire; Joseph M. Nicholson, L.A.C., Holbeck, near Leeds; Samuel Parsons, M.R.C.S. and M.R.C.P.L., London; Marten Perry, M.R.C.S., L.R.C.P., and L.A.C., Evesham; Thomas Pigg, M.R.C.S., Newcastle-on-Tyne; Charles Pratt, M.R.C.S. and L.A.C., Appleton, Devon; James D. Rendle, M.R.C.S. and L.A.C., London; Charles J. Renshaw, L.A.C., Ashton-upon-Mersey, Cheshire; Herbert S. Renshaw, Lic. Fac. Phy. and Surg. Glasgow, and L.A.C., Ashton-upon-Mersey, Cheshire; John W. Roe, M.R.C.S. and L.A.C., Ellesmere, Salop; Braithwaite Rogers, M.R.C.S. and L.A.C., London; Peter Royle, M.R.C.S., L.R.C.P. Ed., and L.A.C., Manchester; William Sadleir, L.R.C.S.I., Dublin; George T. Savile, M.R.C.S., L.A.C., and L.R.C.P. Ed., Beckford, near Hull; Thomas Scully, L.R.C.P.I. and L.M.R.C.S.I., Tipperary; Henry G. Shea, M.R.C.S. and L.A.C., London; Joseph Shillito, M.R.C.S., Newcastle-on-Tyne; Thomas Simpson, M.R.C.S., Liverpool; Charles H. Skae, L.R.C.S. Ed., Edinburgh; John T. Skrimshire, M.R.C.S. and L.A.C., Holt, Norfolk; Bath C. Smart, M.R.C.S. and L.A.C., Balsham; Peter W. Stark, L.R.C.S. Ed. and L.A.C., Lancaster; Robert S. J. Stevens, M.R.C.S., L.R.C.P., and L.A.C., Christchurch, Hants; Abraham C. Swayne, M.R.C.S. and L.A.C., Carrick, Ireland; John Symons, M.R.C.S., London; John Tanner, M.R.C.S., L.R.C.P., and L.A.C., Tethury, Gloucestershire; Robert Tassell, M.R.C.S. and L.A.C., Canterbury, Kent; Thomas R. Tatham, M.R.C.S. and L.A.C., Huddersfield; John Thompson, M.R.C.S. and L.A.C., Bideford; Frederick Turtle, M.R.C.S. and L.A.C., London; Julian L. Vanderstraaten,

L.A.C., Colombo, Ceylon; James Walker, M.R.C.S., North Frodingham, Yorkshire; John S. Walker, M.R.C.S. and L.A.C., Hanley, Staffordshire; Thomas S. Walton, L.R.C.S. Ed., London; Edwin T. Watkins, M.R.C.S. and L.A.C., London; Horace N. Watts, M.R.C.S. and L.A.C., Norwich; Charles A. West, M.R.C.S. and L.A.C., Cornwall; Charles J. White, M.R.C.S., L.R.C.P. Ed., and L.A.C., Brighton; William M. Whitmarsh, M.R.C.S. and L.A.C., Chippenham, Wilts; John Whitmore, M.R.C.S. and L.A.C., London; John Whitworth, M.R.C.S. and L.A.C., Heckmondwicke, near Leeds; George J. Willes, M.R.C.S., London; S. W. Duckworth Williams, M.R.C.S., L.R.C.P., L.A.C., Northampton; John Wills, M.R.C.S. and L.A.C., Child-Okeford, Dorset; Henry J. Yeld, M.R.C.S. and L.A.C., Sunderland.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen passed the First Part of the Professional Examination for the Licence of the College on October 10:—

Messrs. Richard Carter, Charing Cross Hospital; Elijah Baxter Forman, Guy's Hospital; Walter Frost, Charing Cross Hospital; Adolphus Burnell Greatrex, St. Bartholomew's Hospital; John Warrington Haward, St. George's Hospital; Thomas Lyle, St. Mary's Hospital; Harry Gage Moore, Guy's Hospital; Walter Llewellyn Nash, St. Bartholomew's Hospital; and Septimus Terry, St. George's Hospital.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 9, 1862:—

Messrs. Henry Horton, Wednesbury, Staffordshire; William Miller, Scotland-road, Liverpool; James Edward Bennett, Arlington-street, Camden Town; and Jas. Waddell Jeffreys Oswald, Berwick-on-Tweed.

APPOINTMENTS.

ADEY.—Assistant-Surgeon A. W. G. Adey, Civil Surgeon at Kaira, has been appointed a Municipal Commissioner for that town.

ASHFORD.—John W. Ashford, R.N., has been appointed Acting Assistant-Surgeon to the *Victory*, for Haslar Hospital.

BARTLEET.—Thomas Hiron Bartleet, M.B. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Birmingham and Midland Free Hospital for Sick Children, *vice* Mr. George Yates, resigned.

BELCHER.—Thomas Waugh Belcher, M.B. and L.S. Univ. Trin. Coll. Dub., M.B. Oxon., L.K.Q.C.P. Irel., has been elected Secretary of the County and City of Cork Medical and Surgical Society, *vice* William Peterson Bernard, L.R.C.P. Edin., L.F.P.S. Glasg., deceased.

BENNETT.—Charles Bennett, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for District No. 2 of the Daventry Union, Northamptonshire, *vice* William Coghlan Tite Wagstaffe, M.R.C.S. Eng., L.S.A. Lond., resigned.

BRISBANE.—Dr. Thomas Brisbane, R.N., has been appointed Acting Assistant-Surgeon to the *Victory*, for Haslar Hospital.

COOKE.—Robert Thomas Elsam Barrington Cooke, L.R.C.P. Edin. (exam.), F.R.C.S. Edin., M.R.C.S. Eng., L.S.A. Lond., M.B. Univ. Lond., has been re-appointed one of the Acting Medical Officers to the Royal Northern Sea-bathing Infirmary, Scarborough.

COWAN.—Robert Cowan, L.F.P.S. Glasg., has been appointed Secretary of the Glasgow Faculty of Medicine for 1862-3.

COX.—William H. Cox, Acting Assistant-Surgeon R.N., has been appointed to the *Nile*.

CROLY.—Henry Gray Croly, L.K.Q.C.P. Irel., L.R.C.S. Irel., and L.M. Rot. Lying-in Hosp. Dub., has been elected Medical Officer to the South City Dispensary District of the South Dublin Union, *vice* Thomas Deane Hargrave, M.D. Univ. Trin. Coll. Dub., L.R.C.S. Irel., L.M. Dub. Lying-in Hosp., L.S.A. Lond., L.A.H. Dub., resigned.

DAVIDSON.—Deputy Inspector-General of Hospitals W. G. Davidson, A.M., Southern Division, Madras Presidency, has been appointed to act in the Pegu Division.

DAVIS.—George Henry Davis, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon to the Royal Berkshire Hospital, Reading, *vice* Oliver Calley Maurice, M.D. Heid., M.R.C.S. Eng., M. and L.S.A. Lond., resigned.

DONOVAN.—Dr. Daniel Donovan, R.N., Acting Assistant-Surgeon, has been appointed to the *Victory*, for Haslar Hospital.

DOWSON.—Arthur Houghton Dowson, F.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Orford District of the Plomesgate Union, Suffolk, *vice* Samuel Randall, Surgeon R.N. deceased.

EAMES.—T. B. Eames, Barnfield, Stonecliough, near Manchester, has been appointed Certifying Surgeon, under the Factory Act, for the District of Farnworth, *vice* Henry Sharp, resigned.

GRACE.—Henry Grace, M.R.C.S. Eng. and L.M., L.S.A. Lond., has been elected Medical Officer to the Stapleton Workhouse, Bristol, *vice* Edward Hodges, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

GRAHAM.—H. G. Graham, Deputy Inspector-General of Hospitals, Pegu Division, Madras Presidency, has been appointed to act in the Mysore Division.

KITE.—William James Kite, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer for the 3rd District of the West Bromwich Union, Staffordshire.

LEE.—Edward William Lee, M.R.C.S. Eng., L.S.A. Lond., has been elected House-Surgeon to the Middlesex Hospital (of which he was a student).

LILBURNE.—James Lilburne, L.R.C.S. Edin., Surgeon R.N. June 5, 1857, has been appointed to the *Leopard*.

LINTON.—C. C. Linton, Deputy Inspector-General of Hospitals, Mysore Division, Madras Presidency, has been appointed to act in the Southern Division.

MACDONNELL.—Henry Macdonnell, R.N., Acting Assistant-Surgeon, August 1, 1861, has been confirmed in the *Virago*.

MACKENZIE.—Dr. M. M. Mackenzie, Civil Surgeon, has been appointed Member of the Municipal Commission of Ahmednugger, Bombay Presidency.

MCCARRON.—John McCarron, L.F.P.S. Glasg., has been appointed Treasurer to the Glasgow Faculty of Medicine for 1862-3.

MELSON.—John Barritt Melson, M.A. and M.D. Cantab., has been elected President of the Midland Medical Society, Birmingham.

MILLER.—Andrew Miller, M.D. Univ. Edin., L.R.C.S. Edin., has been re-appointed one of the Acting Medical Officers to the Royal Northern Sea-bathing Infirmary, Scarborough.

MORE.—Dr. Robert More, R.N., has been appointed Acting Assistant-Surgeon to the *Victory*, for Haslar Hospital.

OGILVIE.—Dr. C. F. Ogilvie, Civil Surgeon, has been appointed one of the Municipal Commissioners for the town of Sholapoor, Bombay Presidency.

PARKER.—Langston Parker, F.R.C.S. Eng. (Hon.), L.S.A. Lond., has been elected one of the Vice-Presidents of the Midland Medical Society.

RAYNER.—Frederic M. Rayner, Surgeon R.N. November 11, 1851, has been appointed to the *St. Vincent*.

RIORDAN.—Dr. Denis Augustine Riordan, R.N., has been appointed Acting Assistant-Surgeon to the *Royal Adelaide*, for Plymouth Hospital.

ROBERTSON.—Dr. Adam Robertson, Assistant Surgeon R.N., has been appointed Acting Assistant-Surgeon to the *Royal Adelaide*, for Plymouth Hospital.

ROBERTSON.—Charles Robertson, L.R.C.P. Edin., L.F.P.S. Glasg., has been re-appointed one of the Acting Medical Officers to the Royal Northern Sea-bathing Infirmary, Scarborough.

RUSSELL.—James Russell, M.D. Univ. Lond., M.R.C.P. Lond., M.R.C.S. Eng., has been elected one of the Vice-Presidents of the Midland Medical Society.

SCANLAN.—James Scanlan, M.D. Univ. King's Coll., Aberd., L.F.P.S. Glasg., has been appointed Vice-President for 1862-3 of the Glasgow Faculty of Medicine.

SHAROOD.—Edward Julian Sharood, M.R.C.S. Eng., Assistant-Surgeon R.N., has been appointed Acting Assistant-Surgeon to the *Victory* for Haslar Hospital.

SIMPSON.—Dr. John Simpson, Assistant-Surgeon R.N., has been appointed Acting Assistant-Surgeon to the *Royal Adelaide*, for the Plymouth Hospital.

STEDMAN.—Assistant-Surgeon F. S. Stedman has been appointed Surgeon to His Excellency the Governor of Bombay.

STEWART.—Thomas Grainger Stewart, M.D. Univ. Edin., F.R.C.P. Edin., has been appointed Pathologist to the Royal Infirmary, Edinburgh, and Lecturer on Pathology, *vice* Daniel Rutherford Haldane, M.D. Univ. Edin., F.R.C.P. Edin., appointed Lecturer on the Practice of Medicine, and one of the Physicians to the Royal Infirmary.

TAYLOR.—William Taylor, M.R.C.S. Eng., has been re-appointed one of the Acting Medical Officers to the Royal Northern Sea-bathing Infirmary, Scarborough.

THOMPSON.—Mr. George Thompson has been appointed Dispenser to the Ripon Dispensary and House of Recovery, *vice* Mr. William Atkinson, whose term of office has expired.

TUTIN.—John Hasledine Tutin, M.R.C.S. Eng., has been appointed Surgeon to the Ripon Dispensary and House of Recovery, *vice* Septimus Tutin, M.R.C.S. Eng., L.S.A. Lond., deceased.

WINSTANLEY.—Clement Winstanley, M.R.C.S. Eng., L.S.A. Lond., has been appointed House-Surgeon, Apothecary, and Secretary to the Stamford, Rutland, and General Infirmary, *vice* Charles Henry Drake, M.R.C.S. Eng., L.S.A. Lond., resigned.

DEATHS.

BECK.—October 10, Edward Beck, of Northgate-street, Ipswich, M.D. Cantab., Physician to the East Suffolk and Ipswich Hospital.

CHALMERS.—October 13, William Chalmers, of No. 13, Western Cottages, Brighton, M.D. Univ. Aberd., M.R.C.S. Eng., L.F.P.S. Glasg., formerly Surgeon in the Hon. East India Co.'s Service, Bengal, and late Physican to the Glasgow Royal Infirmary, aged 76.

CHATTERTON.—October 10, James Thorpe Chatterton, of Kingston-on-Thames, M.R.C.S. Eng., L.S.A. Lond.

COOPER.—October 3, William Cooper, of Ormesby St. Margaret, Norfolk, formerly of Martham, in practice prior to 1815 (retired), aged 76.

EVANS.—October 4, suddenly, at Crockherbtown, Cardiff, Edward Evans, aged 77.

JEMISON.—August 17, of yellow fever, at Nassau, Bahamas, Dunbar Alexander Jemison, L.R.C.S. Irel., Assistant-Surgeon R.N. December 16, 1861, Acting Assistant-Surgeon to the *Petrel* February 22, 1862, aged 25.

LEDGER.—October 12, at Hastings, Matthew Ledger, of Kensall-villa, Harrow-road, M.R.C.S. Eng., L.S.A. and M.S.A. Lond., aged 37.

LOWERY.—October 6, at Corbridge, George Lowery, aged 68.

NASH.—October 7, at No. 1, Cromwell terrace, Harrow-road, Charles Samuel Nash, L.R.C.P. Edin., M.R.C.S. Eng.

RANDALL.—Recently, Samuel Randall, of Orford, Wickham Market, Suffolk, Surgeon R.N. 1806.

WARD.—October 7, Thomas Abel Ward, of Watford, Herts, M.R.C.S. Eng., L.S.A. Lond., aged 68.

WILLIAMS.—August 30, of cholera, at Dhurrumgaum, Heaton Lloyd Williams, M.D.

LONDON GAZETTE.

October 10.

10TH DUKE OF CORNWALL'S ARTILLERY VOLUNTEER CORPS.—Henry Grenfell to be Honorary Assistant-Surgeon; dated September 26, 1862.

Her Majesty has been graciously pleased to accept the resignation of the Commission held in this Corps by Honorary Assistant-Surgeon R. B. Searle.

13th Duke of Cornwall's Artillery Volunteer Corps.—R. B. Searle, to be Honorary Assistant-Surgeon.

October 14.

11th Kent Artillery Volunteer Corps.—John William Howard, gent., to be Honorary Assistant-Surgeon; dated October 3, 1862.

There is a vacancy for a Physician at the Islington Dispensary, *vice* Dr. Hughlings Jackson, resigned.

The Judges, lawyers, and suitors of the Court of Bankruptcy, Basinghall-street, are, it is said, in constant fear of asphyxia, from the ill-ventilated state of the small room which serves for the Court.

Intelligence by the last West India mail reports that in the island of Curaçoa smallpox was raging with great violence and carrying off numerous victims, and also at places adjacent on the coast. Yellow fever was still prevalent at Barbadoes. The island of St. Thomas was healthy.

How the Confederates get Medicines.—"The smugglers were unusually active at Memphis. Several novel cases had recently been discovered. One man had made a false bottom for his waggon-box, in which he had secreted a large quantity of morphine and quinine. Another had concealed quantities of liquor in barrels of vegetables. Of course, the property was confiscated, and the offenders properly punished."—*New York Tribune.*

The Boylston Prize Questions for 1863 and 1864.—Ninety dollars, or a gold medal of equivalent value, will be awarded for the best essay on the two following subjects for 1863, viz,—1. "Trephining the Skull for Injury or Disease;" 2. "Leucocythæmia." Dissertations to be forwarded, post paid, to Dr. Edward Reynolds, New York, by the first Wednesday in April, 1863. For 1864 the subjects are, on the "Treatment of Fractures without Splints," and "The Remittent Fever now prevailing in the U.S. Army."

The Supplementary Clinical Chairs at the Faculty of Medicine of Paris.—It seems that the Paris Faculty made a stout opposition to the establishment of these Chairs, and to conciliate it they have been consigned to a mere secondary rank. The following are the holders of the first appointments:—Hardy, Diseases of the Skin; Verneuil, Syphilitic Diseases; Follin, Ophthalmology; Roger, Diseases of Children; Voillemier, Diseases of the Urinary Organs; and Lassegne, Diseases of the Nervous System.

The Magistracy.—On the recommendation of the Right Hon. Lord Carew, the Lord Chancellor has been pleased to confide the commission of the peace for this county to John Coghlan, Esq., M.D., of Wexford. In announcing this appointment we cannot refrain from expressing our approval of it. It is one that reflects credit upon the excellent Lieutenant of the county, and that will give satisfaction to the public, for Dr. Coghlan possesses in an eminent degree those qualifications that are most to be desired in a magistrate. He is a scholar and a gentleman—upright, honest and impartial, and no man enjoys to a fuller extent the respect and confidence of his fellow-townsmen than he does. We wish him health and long life to discharge the duties of the honourable post to which he has been appointed. —*Wexford Constitution.*

An Inconvenience of being too Popular.—Of all the French Medical Consulting Practitioners, M. Trousseau is by far the most popular, and is habitually sent for from all parts of France, and even abroad. It seemed, therefore, the most natural thing in the world to the penny-a-liner of the *Constitutionnel*, without, indeed, much regard to the specialty of the case, to insert a paragraph stating that this eminent Physician had been sent for by General Garibaldi. The public believed the statement, and for several days his consultation-room remained empty. "This villanous paragraph," exclaimed the unfortunate Professor, "has cost me twenty pounds a-day." In fact, although Paris was never so healthy as at present, men in good practice having little or nothing to do, this is the time of year when the provincials and foreigners, well laden with fees, repair to the capital for the purpose of consultation.

"Another piece of news is the visit of Professor Partridge, of London, to the General Garibaldi. The English have always been much interested in the illustrious general, as politician and soldier; now that he is wounded and a prisoner they have shown no less solicitude in sending him assistance which he did not even ask. They seem thus to fear that the attentions of his *compatriotes*, the Italian Surgeons, were insufficient for his cure—which, spite of all *ménagements* to the contrary, is very annoying—and have sent him one of their most celebrated Surgeons to inform them by ocular testimony as to the nature of his wound and the state of his health. Luckily, our Italian *confrères* have taken it in good part, and Mr. Partridge has but confirmed the report of Professor Porta, and sent the substance of it to his employers."—*L'Union Médicale.*

A Naturalist Killed at Filey.—The watering-place of Filey was the scene of a dreadful event on Tuesday afternoon. A young gentleman, named Mr. Tom H. Suggitt, a naturalist of promise and ability, resident at Filey, proceeded to the "Brigg" and cliffs adjoining, in search of sundry objects. He left about one o'clock, and about four was seen leaving the "Brigg" towards Scarborough. He would soon be among the wildest rocky confusion of this coast, the road from which, though frequented by adventurous explorers, is a most dangerous one, known as the "ridge," one part of which hardly affords foothold. Young Suggitt had ascended to a considerable height, and appears to have lost his foothold in endeavouring to reach his collecting-hampers forward. From ridge to ridge he rolled, and, unable to recover himself, eventually shot over the cliffs among the huge rocks below. A gentleman who was fishing found the body about five o'clock, when death had resulted some time. Death, in fact, must have been instantaneous, the head receiving the great force of the fall. The sad event has cast a gloom over the place.

Sir E. Bulwer Lytton, like Lord Derby and Mr. Gladstone, is speaking out on the sewage question. At a dinner at Hertford he said:—"When I held the Colonial seal it cost me trouble and toil to secure from some distant islands a scanty supply of guano, while all the time, close at hand, a few of the London sewers were every year casting away into the Thames more than half a million's worth of a manure considerably more valuable for the general purposes of agriculture than that guano which ships were fitted out to bring home, in order that it might be retailed at a price which rather fits it for the phials of an apothecary than the fields of a farmer. (A laugh.) I said half a million's worth of money was thus thrown away, but that is a very low estimate of the real waste. In Flanders, for instance, where I have been lately, the value of sewage is calculated according to the numerical population, especially in towns. It is there calculated at £1 7s. a head yearly. In Belgium it is calculated at a still higher rate. So that, if the population of London be taken at 2,000,000, a means of increasing the productive wealth of the country, which, according to the estimate of Flanders, would be worth about £2,700,000, is exclusively devoted to poison the waters of the Thames, and administer gratuitous disease to her Majesty's metropolitan subjects."

Heroic Conduct of a Doctor's Maid.—In a late number of the *Medical Times and Gazette* we spoke of "Doctors' Maids"—*i.e.* of the advantage of employing sharp, tidy, intelligent women to open the door and attend to patients, instead of male domestics. The following anecdote will show that Dr. Joseph Skelding has, like most sensible men, got good servants in his house. George Scannell, of no occupation, was charged at the Marylebone police-office with a robbery of plate. Miriam Pitman said—I am housemaid to Dr. Joseph Skelding, of 16, Euston-square. About eight o'clock the prisoner came to the door, and said that master was wanted to attend a lady in Chapman-street, who had been taken suddenly ill. At the same time he gave a name and the number of the house. I left the prisoner in the hall while I went and communicated with my mistress, and she, not knowing either the name or the street, sent me to make further inquiries about the lady. As I went down stairs I looked over the banisters, and saw the prisoner coming out of the dining-room. When I came to the hall I did not tell him what I had seen, but walked straight to the street door, and placed my back against it. The prisoner then stood in front of me, and I questioned him about the lady from whom he said he had come. He then said, "What's the doctor's name here?" On being told, he expressed some surprise, and said he had no doubt come to the wrong place. I said, "You need not be surprised; I believe you have some improper purpose in coming here." I then asked him why he went into the dining-room. To this he said he had never been in there; and I said, "It won't do for you to tell me that, but just give me the plate you have taken

from the dining-room table." He swore at me, and said he had not got any, when I turned round to ring the surgery-bell to get the cook to assist me. While I was so doing the prisoner threw down a bag, and, catching hold of me, tried to throw me down; but, as I struggled with him, he was only able to push me on one side. He then rushed out at the door, and I followed, about sixty yards in the rear, calling "Stop thief!" He was captured, and brought back to the house. A police constable took from his different pockets the silver plate that had been taken from the dining-room table. Mr. Mansfield remanded the prisoner for a week, and said, "Miriam Pitman, you have acted with great courage and sense, and I certainly do hope that your master and mistress will reward you for saving their property in the way you did."

PHILADELPHIA AND NEW YORK.—The city of Philadelphia is larger than any in Europe, Paris and London alone excepted, numbering 600,000 inhabitants, and covers with its unbroken buildings a larger space than New York, and having no dirty internal dens called tenement-houses. Each man is lord of his own little castle; and it may be affirmed, beyond contradiction, that nowhere under heaven is the same amount of working humanity so condensed enjoying the same comforts, decencies, and prosperities, as in Philadelphia. The journeyman mechanic can rent, in a broad, well-ventilated street, his comfortable little house, with all the modern conveniences of gas, bath-room, kitchen-range, and so forth, for an expense within his means and economies. Compare this with the metropolitan treatment he receives in New York, where he seethes in back-slums, families piled on families, and with the desperate filth of uncleansed streets assailing his nostrils, and creating a greater proportion of tubercular consumption than any other city is afflicted with, notwithstanding the magnificent advantages of the bay and rivers. Philadelphia, so far from being provincial, has all the requisites of a great city. In her great Hospitals she was the pioneer of all the States and Colonies; in her libraries she led the way; in her theatres she was first, and now has the finest in the country; in her halls of science, she rivals Europe; in her markets she stands almost unequalled for profusion; and her miscellaneous manufactures exceed those of any other city in the world.—*New York Tribune.*

THE number of sick and wounded at present in Frederick City, Maryland, exceeds 4000. To accommodate this large number every exertion has been made by the Medical Director and his staff, who have been nobly assisted by the ladies of Frederick. Last Friday, 3180 rations for the sick and wounded were served out; Saturday, 4200; and to-day about 4100. As the badly wounded who can be removed are being brought in, the convalescent are being sent away, and now that the railroad communication is complete they are being sent North at the rate of 700 a-day; but no sooner are they gone than others take their place, as those that lie at Middletown and Boonsborough are brought in here, where they can be made more comfortable. It takes an immense staff of Surgeons, Doctors, and nurses to attend to 4000 patients. I have visited all the Hospitals in the city, and I have not met one man to complain that he was not well attended to at all times. We have 20 Hospitals in Frederick City. The largest is the one known by the name of the United States General Hospital. This building is situated on a hill just as you enter the city. It was used as a barrack by General Banks when he was quartered in this city last winter. It is capable of accommodating nearly 1000 patients. There are 19 other buildings which have been converted into asylums for the sick and wounded, namely: the City Hotel, the United States Hotel, the Lutheran, Methodist, New and Old Episcopal, Presbyterian, and African Churches, the three upper or high-schools of the city, Nos. 70, 71, and 72; also, two German Reformed Churches; the Frederick Female Seminary; Bronson's Academy; a portion of the large building called the Jesuits' Novitiate; the left wing of the convent occupied by the Sisters of the Visitation Convent; and a private house used as the Hospital for Confederates. Dr. H. S. Henertt presides over the Novitiate and Convent Hospitals. Dr. R. F. Wier, of New York, has charge of the General Hospital; he has also been acting as Assistant-Medical Director. Mr. M. J. Fitzgerald is the general steward for all the Hospitals in town. At all hours of the day, and even at night, you can find the ladies of Frederick at the bed-sides of our poor sick and wounded soldiers. The men get well rapidly under their kind treatment. No words of mine could describe their kindness and attention. A train full of mattresses, beds, pillows, and Hospital furniture generally, arrived here to-day. They were much wanted, and will soon be in use.—*New York Tribune.*

GARIBALDI.—The Turin correspondent of the *Times*, whose letter is dated October 11, writes:—"We have somewhat disquieting news respecting the wound of the prisoner of the Varignano. For more than a week the bulletins issued by Dr. Ripari and his colleagues, and printed in the Turin *Diritto* and the *Movimento* of Genoa, became every day less reassuring. The one bearing date of the 9th spoke of 'stationary swelling—tolerable quantity of matter; diminution of pain at the foot; manifestation of the same at the right knee and left hand; a middling night.' On the same day Dr. Ripari summoned Dr. Zanetti, of Florence, to a consultation, which was also attended by Dr. Tommasi and Professor Gherini, of Milan. The result of this learned meeting was a report on the present state of the General's wound, of which the following is the conclusion:—'From the general course of the illness and from all our foregoing observations we think we may anticipate a favourable success, notwithstanding the degree of anchylosis which may manifest itself; but we are still of opinion that the wound is serious; 1, because the important articulation of the foot with the leg is open, and the internal ankle is fractured; 2, because the presence of the bullet is not disproved; 3, on account of the arthritic disposition of the sufferer; all circumstances which might give rise to morbid complications of such a nature as to prolong and even to aggravate the complaint. As to the cure, we deem it expedient to persevere in the treatment hitherto followed.—Ripari, Ferdinando Zanetti, Gherini, Corrado Tommasi, Prandina, G. Basile, E. Albanese.' The bulletin of the 10th says, 'A tranquil night; the local pain and swelling diminished.' From all I hear from private sources there is little doubt that matters are even somewhat worse than the doctors are willing to let out. Garibaldi is more than fifty-four years old. He has lived for many years in hot, enervating climates, where human life wears out at a rapid rate, and as far as hardships by flood and field can try a human frame, he has not at any time spared himself. Truly, his sober and abstemious habits and regular mode of living greatly befriended him; but those who have followed him in his late expeditions know the many hours of rest he required by day as well as by night; and, on the other hand, prolonged inactivity seldom failed to bring on those arthritic or gouty attacks which caused him excruciating pain, and nailed him to his bed or armchair for weeks at a time. I have heard Professional men, in short, who think that the recent amnesty will be in so far unavailing for him, that it will not be possible to remove him from the Varignano for six months to come; while even the most sanguine agree that for more than a month it would be the height of imprudence to attempt to lift him from his present posture."

ELEPHANTS.—In the Geological Section of the British Association, on October 4, Professor Owen exhibited and described the tooth of *Mastodon sinensis*, taken from tertiary marls, near Shanghae, in China. He said, that among the general results of geology few were more interesting than those which concerned the former distribution of animal life throughout the earth, and in no group was the extension of their knowledge so remarkable as in that of the most gigantic quadrupeds which at the present day were restricted to Asia and Africa. They knew that elephants of several species had existed in both North and South America, and, in fact, in all quarters of the world; and it appeared, from the evidence of a single fossil tooth found in Australia by Count Strelecki, that a species of *Mastodon* had formerly existed in that country. In Asia, elephants were now limited to the tracts south of the Himalaya. Formerly they extended north of it, as far as the shores of Siberia; and westwards over Europe, and abundantly in England. He was now able to communicate the fact, that elephantine animals had left their remains in the old empire of China. Mr. Lockhart, a missionary, while at Shanghae, had his attention attracted to certain raw mineral materials which were brought to that port to be converted into medicines. They appeared to him to be the fossilised remains of animal life, and on inquiry he found that they came from tertiary deposits in the vicinity of Shanghae. The learned Professor then produced the tooth which had been discovered in the same place, and described its principal features, observing that it was considerably worn, and had probably been

shed by the animal. It was the first specimen of the kind obtained in China, and showed that the genus of elephantine animal known as the *Mastodon* had existed in that country. Dr. Falconer, M.D., F.R.S., entered into a long argument to show that the fossil tooth, said to have been found by Count Strelecki in Australia, and alluded to by Professor Owen, could not be relied upon as authentic evidence to prove the former existence of the *Mastodon* in that colony. He was disposed to think that the Count, who had been travelling in South America and elsewhere, had by some accident mixed his collections, and thus been led into a mistake as to the identity of the article. At any rate, Dr. Falconer said he must, without further evidence, withhold his belief in the existence of this species of animal in Australia. Professor Owen said that this abominable molar tooth of the *Mastodon* from Australia had been like a stone in his stomach ever since it had been given to him, twenty years ago, by Count Strelecki. The Count had always adhered to his original version of the way in which it came into his possession; but after the statements of Dr. Falconer he confessed he was sceptical upon the point, and he would never henceforth mention anything about the *Mastodon Australis* until he received further confirmation of the story. (Laughter.) Mr. Godwin-Austen stated that M. de Köninck, of Liége, had collected brachiopodous shells from among the substances sold as medicines in China. Dr. Falconer also read a paper "On the Asserted Plurality of Species of Existing Asiatic Elephants," in which the doctrine recently promulgated by Schlegel, that the elephant of Sumatra and Ceylon was distinct from that of India and Siam, was controverted; and another "On Ossiferous Caves in Malta, explored by Captain Spratt, C.B., R.N., with an account of *Elephas Melitensis*, a pigmy species of fossil elephant, and other remains found in them." This was illustrated by a large collection of fossil remains. The *Elephas Melitensis* belonged to the sub-genus *Loxodonta*, and was allied to the African elephant.

Dr. Livingstone.—At the meeting of the British Association, Dr. Norton Shaw, Secretary to the Royal Geographical Society, read an interesting and touching letter from Dr. Livingstone, of which the following is a copy:—"Shupanga, River Zambesi, April 29, 1862.—My dear Sir Roderick Murchison,—With a sore, sore heart I must tell you of the loss of my much-loved wife, whose form was laid in the grave yesterday morning. She died in Shupanga-house on the evening of the 27th, after about seven days' illness. I must confess that this heavy stroke quite takes the heart out of me. Everything else that has happened only made me more determined to overcome, but with this sad stroke I feel crushed and void of strength. Only three short months of her society after four years' separation! I married her from love, and the longer I lived with her I loved her the more. A good wife, and a good, brave, kind-hearted mother was she, and deserved all the praises you bestowed on her at our parting dinner, for teaching her own and the native children, too, at Kolobeng. I try to bow to the blow as from our Heavenly Father, who orders all things for us. Some may afford to be stoical, but I should not be natural if I did not shed many tears over one who so deserved them. I never contemplated exposing her in the lowlands. I proposed that the *Nyassa* steamer should sail out, and on reaching Kongone cut wood and steam up the river. This involved but a few days in the lowlands; but another plan was preferred. She (the steamer) came in pieces in a brig. Gladly accepting the kind offer of Captain Wilson, of Her Majesty's ship *Gorgon*, to help us up to the Murchison cataracts, we found, by a month's trial, that the state in which the engines were precluded ascending the Shire with the pieces on board the *Pioneer*. We were forced to put her together at Shupanga, and we have been three months instead of three or four days down here. Had my plan been adhered to—but why express useless regrets? All had been done with the best intentions. But you must remember how I hastened the first party away from the Delta, and, though I saved them, got abused for breaking the Sabbath. Then I prevented Bishop Mackenzie's party landing at all till these same unhealthy months were past, and no one perished till the Bishop came down to the unhealthy lowlands and died. The Portuguese have taken advantage of the sanitary knowledge we have acquired, and send their troops up to Tette at once. They lost but two of a detachment; while formerly, by keeping them at Quilimané and Lenna, nearly all were cut off. I shall do my duty still, but it is with a darkened horizon I set about it. Mr. Rae put the hull of the new steamer together in about a fortnight after we brought up the keel. She looks beautiful and strong, and I have no doubt will answer all our expectations when we get her on the lake.—Ever affectionately yours, David Livingstone." The Rev. Professor Selwyn stated that the plan now arranged by the committee at home, whereby to communicate directly with the members of the Universities' Mission to Eastern Africa, is that the Universities' Boat Clubs shall be asked to furnish the means of establishing a boat service from the ocean into the interior, independently of Dr. Livingstone. The Rev. W. Monk, F.R.A.S., of St. John's College, then explained the circumstances under which Mrs. Livingstone was induced to join her husband on the second occasion, which resulted in her death. While staying at his house in Cambridge, a few months before her departure, she told him that she intended to return unexpectedly to her husband to consult with him concerning some domestic anxieties and his own future plans. This explains the allusion, in Dr. Livingstone's letter, to his regret at her prematurely joining him on the Zambesi. The President said it was his decided opinion that it is bad policy to take ladies on such expeditions. On Mr. Crawfurd's alleging the unhealthy nature of the Eastern coast of Africa, Dr. Beke closed these interesting communications by saying that Abyssinia is a very healthy region for Europeans.

British Association.—In the section "Physiology," Dr. Gibb read a paper upon the "Normal Position of the Epiglottis as determined by the Laryngoscope." After dwelling upon the great impulse given to the study of the larynx by the introduction of this valuable instrument, he gave the results of his examination of three hundred healthy persons, to which he attached much importance. The position of the epiglottis, hitherto believed to be solely vertical, Dr. Gibb has discovered to be oblique, or nearly transverse, in a certain proportion—namely, eleven per cent., which he thought was most probably congenital, for he had found it in parents and their children. Persons subject to this depression of the cartilage were liable to great inconveniences and danger in the event of disease; and the voice was so altered as to interfere in many with clear intonation. When disease is present conjointly with a depressed epiglottis, the general suffering was not only remarkably great, but life rendered miserable; and he believed that in the majority of these the position was congenital, and that in youth much trouble, risk, and danger were experienced whilst passing through the diseases of childhood. It seemed to him that the determination of the position of the epiglottis was a matter of the highest importance to the welfare of the young (indeed, he ranked it next in value to vaccination in small-pox), and that it should be ascertained as early as practicable, say from six to ten years of age, as a safeguard against mischief during the prevalence of epidemics of sore-throat or other diseases. If the epiglottis be found depressed, the family Medical attendant should be made aware of it, and regulate himself accordingly in respect to treatment, present or remote. In the Geological section a paper was read by H. Seeley, Esq., F.G.S., on a "Whittled Bone from the Barnwell Gravel." This bone was a portion of a rib belonging to a young elephant, the broken end of which exhibited about a dozen cuts, the facets of which intersected, and were probably made by a jagged cutting instrument. It was obtained from the gravel of Cambridgeshire, and the author wished to regard the cuts it bore as of the age of the extinct mammalia, and to have been produced by an edge of flint, guided by human hands. These cuts, however, were, in the opinion of some gentlemen, produced by a bronze or iron edge, during a period more recent than the one to which Mr. Seeley referred it.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Our engagements with some of our most valued contributors and correspondents have been interrupted by the necessity of reporting the meetings of the British Medical Association, and the openings of the Medical Schools. We have in the printer's hands papers by Mr. Hulme, Mr. Robert Ellis, Dr. Mitchell, Dr. Whitehead, Dr. Leared, Dr. Kirkes, Dr. Laycock, Mr. Hussey, of Oxford, Mr. Sansom, Dr. Knox, Mr. Carsten Holthouse, and Mr. Haynes Walton.

A First Year's Student.—Holden for the study; Ellis for the dissecting-room.

A very full account of the Proceedings of the British Association for the Advancement of Science will be found in the *Social Science Review* for last week.

E. B.—A second edition of Dr. Marcet's work "On Chronic Alcoholic Intoxication" is just published, and lies before us. You cannot do better than get it, and give to oxide of zinc a fair trial.

G. R. T.—Section 31 of the Medical Act says that "every person registered under this Act shall be entitled, *according to his qualification* or qualifications, to practise Medicine *or* Surgery, or Medicine *and* Surgery, as the case may be."

Pater.—1. We may answer this question by asking another. Is a boy of seventeen furnished with sufficient knowledge of mathematics, mechanics, optics, etc., to enable him to master the scientific parts of Medicine? Can he understand chemistry by merely *reading* about it? or the structure of the eye or ear without some knowledge of optics and acoustics? Does he know anything, except by the merest smattering and hearsay, about vaults, levers, arches? If, therefore, he is to pass his first year in a working apprenticeship, he ought to have a tutor. The reading of a boy by himself, desultorily or not, is not attended with the same profit as may be got by studying under a tutor, or by attending classes and *seeing* experiments and apparatus. Still greater is the benefit of *performing* experiments with his own hands and eyes. 2. The art of studying requires systematic cultivation. You take a boy from school, where every hour is occupied with its appropriate task, and where knowledge is put together methodically, and turn him loose into a surgery, where he is to pick up jottings of what he does not understand, and is left to study *books* on subjects such as anatomy and chemistry, which he ought to learn from *objects*. Besides the mere mechanical routine of dispensing, which an errand-boy can learn in a week or two, what is the use of *reading* materia medica to one who knows nothing of chemistry, natural philosophy, physiology, or pathology? You throw all your boy's intellectual apparatus out of gear for a year, and let his habits of precise study grow rusty, and then expect him to take to hard study again when he comes up to town! 3. The *cost* of either arrangement is much the same. A boy must eat, and must wear clothes, and sleep; but he must also *learn*. The current Numbers of the *Medical Times and Gazette*, and our articles on Medical Schools, will show unmistakably where education can be got at the smallest money cost.

A Constant Reader.—Such articles as that in the *Saturday Review*, on "Medicine and Physiology," need not disturb the composure of any educated Medical man. We know very well that our art is uncertain, and that we are often at the mercy of conditions which are quite out of our reach. Most fatal diseases are fatal in one of two ways. Perhaps a dose of poison has been imbibed, or some injury inflicted, which the animal body is not constituted to endure; thus, the scarlet fever may destroy in a few hours, and we know no antidote. Or the patient may have been subjected to influences which have long ago sealed his fate, and the ostensible disease for which we are summoned to his aid, is but as the smoke that rises when a house on fire has tumbled in. Why does this child die of hydrocephalus? Because its mother was half-starved, or bullied by her husband during pregnancy; or because the father is a man who lives by his brains, and has neither bone nor muscle to transmit to his child. What are most cases of consumption but the wind-up of years of anxiety and misery, or of the sins of parents? We cannot help this; we confess that our art has its limits. But the study of physiology *per se* will not help us. It is a most valuable collateral aid and discipline to the mind. A man who has studied physiology acutely will, if he take pains, be prepared to study disease likewise. But the grand mistake of the *Saturday Reviewer*—a mistake shared by some amongst ourselves—is the supposition that "systems of treatment" are or can be "founded on doctrines." On the contrary, we found doctrines on the results of treatment. There is no high *priori* road. The most eminent physiologist, who wishes to practise physic, must come and humbly watch at the bedside, and observe, and notice, and compare the results of treatment with the results of no-treatment, and, availing himself of the results of the experience of the past, and of what passes under his own eyes, gradually work out a system for himself. We *are* empirics; but we humbly conceive that we are enlightened ones, and that anatomy, chemistry, and what is known of physiology, every day does something to clear up the relation between the action of remedies and cure of disease. Meanwhile, never mind what *doctrine* may be in vogue. Sensible men will generally be found to treat similar cases pretty much alike, though they nominally belong to different schools.

Economicus.—A good fire is one of the cheapest, wholesomest, most refined, and least sensual forms of indulgence that can be conceived. It keeps the air pure, cheers by its light, amuses by its noise, and, in the little cares it requires to keep it gently fed and tended, it so nearly resembles the softer sex that it may well be a solace to the solitary man. So soon as ever the state of the weather forces you to shut your windows, then begin fires. Nothing can be more odious than a room filled with chilly people, who have not the courage to order the fire to be lighted, but sit shivering, and creating an unwholesome warmth by keeping the doors and windows shut, so as to confine the exhalations of the animal body and the vapour of lamps and candles. In a well-ordered house, the kitchen fire consumes about one ton of coal per month, and six other fires, another ton; so that, estimating coal at a guinea per ton, the weekly cost of coal for one fire is 10½d., and with three halfpenny bundles of wood for lighting it, the exact weekly cost is 1s. For domestic purposes a slowly-burning coal, of low specific gravity and low price, is much better than what are called the best coals, which are of higher specific gravity, do not fill so much space, and require constant attention to prevent them from going out. Medical men should enlighten the public on the subject of this miserable parsimony in fire, although, by so doing, they would lose the treatment of the bad colds and sick headaches which people get at this time of the year by sitting in cold, and yet close and unventilated, apartments.

Sewage.—Dr. Henry Bird, of No. 1, Berkeley-street, Cheltenham, has a plan for disposing of sewage and applying it to agricultural purposes, the gist of which is as follows:—

"1. That sewage collected in large quantities and small, divides into three parts, the floating, the fluid, and the heavier solid matter.

"2. That the only deodorants used are sulphuric acid and dried clay, which fix the salts of manure, and precipitate most of the organic soluble matter.

"3. That the floating and heavier part of sewage is saturated with sulphuric acid, and dried with a low heat, which deprives it of smell and weight, and improves its properties; while the fluid mixed with the same acid is used to irrigate the surrounding land, and to saturate the town rubbish after it has been screened and crushed.

"4. That sewage may be easily separated into its three parts by means of double rows of tanks on a level with sluices and cylinders, without the disappointment, labour, and cost of filtering beds, &c., and such tanks and sluices are nearly self-acting.

"5. That sulphuric acid and dried clay are sufficiently active as deodorants, but in an additional tank, if the fluid sewage is to be wasted, burnt peat, charcoal, and ashes may be used to still further deodorise it.

"6. That the floating and heavy sewage should be frequently removed and mixed with sulphuric acid in a tank in the drying-house, and afterwards passed into a shallow reservoir, with heated steam pipes, to dry, and when dried it is to be ground or crushed, to make it fit for drilling or spreading on the land.

"A population of 40,000 people pass daily about three tons of dried excrement. From animals and other sources about two tons; total, five tons. And the average quantity of fluid and solid is said to be about sixty gallons to each residence; the whole is worth, at least, £7000 a year when converted into sulphate of sewage."

Erratum.—Page 386, thirteen lines from the top, *for* "opium" *read* "morphia."

The Puckett Subscription.

Our friend, Mr. Griffin, of Weymouth—and, although we have never so much as seen him, we are sure that he would allow us to call him by that name—has presented to us one of the most satisfactory and business-like balance sheets we have ever seen, of the Puckett Subscription. He says:—

"Since the death of Mr. Puckett, there have been subscribed £1016 19s. 6d., which, minus expenses, I have handed over to the following gentlemen, who have kindly consented to act as Trustees, viz.:—Colonel Gilpin, M.P., Hockliffe Grange, Leighton Buzzard, who for many years has been a kind friend to the family of the deceased; the Rev. Talbot Hastings Bendall Baker, Vicar of Preston-cum-Sutton Poyntz, in which parish the murder was committed; and the Rev. Edward Headland, Rector of Broadway, in which village the deceased resided. A wish has been expressed that I should be one of the Trustees; and as the Guardians, who have subscribed £50 from the Common Fund, and have individually contributed liberally, have expressed a desire that one of their body should also be a Trustee, and have named Mr. Richard Luckham, of Broadway, as their representative, our names have been inserted in the Trust deed; but as the Bank Directors will only allow the names of three Trustees to appear on the Bank books, the money has been invested in the names of the first three gentlemen, but in all other respects the powers of the five Trustees will be equal.

"In order to obtain as large an annual income as possible, the Trustees have invested £810 9s. 8d., in East India Stock (a fund guaranteed by Parliament), which will bring in £37 per annum; and on November 24, the anniversary of Mrs. Puckett's birth, they intend to sink with the Norwich Union Life Office, where the deceased had insured his own life, the sum of £161 7s. 8d., for which the widow will receive £15 per annum, thus securing for her an annual income of £52.

"The Press, general, local, and Medical, have most liberally thrown open their pages to this appeal. The Bankers, together with the Proprietors of the Public Libraries, have most generously rendered us their aid. My co-Trustees have been most zealous in the cause, and through their influence a large amount of money has been subscribed. Many of my Medical friends have canvassed most energetically for subscriptions, and have been well repaid for their labour by the large collections they have made, and others unsolicited have forwarded me donations. At the request of the widow and family, and in the words of one of its members, I beg to return 'their deep and heartfelt gratitude for the kind and munificent manner in which they have been supported by the public in their heavy bereavement and affliction.' Some of the creditors generously gave up the whole amount due to them (Gale, Baker, and Ward, about £10), and most of them made a reduction."

Medical Officers of Health for Leeds.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I take the liberty of sending our local daily paper of to-day, containing a very brief report of a discussion in our Town Council on the subject of the appointment of a Medical Officer of Health.

From the way in which it was received I have no doubt, in the course of a short time, we shall be able to accomplish this very desirable object, notwithstanding the opposition of a certain section. You will see from the Report that the appointment was opposed by Mr. C. Price, who is a Medical Practitioner in Leeds. He objected to the great expense it would involve to have a proper appointment made, and also objected to the holding up of Leeds as being unhealthy, notwithstanding its high death-rate of 27 per 1000, and the acknowledged existence of very many sources of disease. A lay member observed, in reply to this, that, in some part or other of Leeds, scarlatina, typhoid fever, or small-pox, was always epidemic.

I send these particulars to show you that some of us are not indifferent

to our sanitary condition; and also that the Medical element of the Council, or a part of that element, is not taking the proper position, viz., that of public leaders in sanitary matters. I am, &c.

P.

Medical Advertising.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—With a view to suppress the advertising system in our Profession, will you have the kindness to insert the enclosed? I suspect that many of the Medical men in this city would object to meet Mr. Orris in consultation if they were aware he distributed these circulars. I enclose my card. I am, &c. A. B.

Norwich, October 8.

"Magdalen street, St. Clement's, Norwich.—Mr. Orris, Member of the Royal College of Surgeons, England, Licentiate of the Apothecaries' Hall, gives advice, from one to two o'clock every Saturday and Tuesday, to persons residing in the country; and from nine to eleven, to persons living in the city. Also, in urgent cases, at any hour, either in country or city. Mr. O. visits daily twelve miles from the city; any further distance at a short notice. Confinement foe, according to arrangement."

St. Andrew's Academic Costume.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Some of your readers will be amused at the letter from "M. D., St. Andrews," in your impression of last week. If such information concerns graduates of that University, why is it conveyed to us through an anonymous writer authorised by Dr. Day? When and what are "those public occasions when University men usually appear academically attired," and how on earth does it concern men in active practice, long since taken their degree, whether the dress be a flannel blanket or a Cambridge gown, except they can have the questionable satisfaction of going so dressed to all funerals and public meetings? For my own part I consider the greatest distinction we can covet is well-merited Professional reputation, which must bring far more real profit and pleasure than the "very handsome and elegant purple cloth, lined with rose-coloured silk"!! I enclose my card. I am, &c.

Silk Breeches.

Dr. Fowler's "Medical Vocabulary"—Imputed Plagiarism.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—There has just issued from the press a work by Dr. R. G. Mayne, of Leeds, entitled "A Medical Vocabulary." We learn from one of his prefaces thereto that it is the second edition of a similarly-titled book, "published in 1836." "The first edition (he tells us) . . . . formed the nucleus of a much more comprehensive work, the 'Expository Lexicon of Scientific Terms,' issued periodically, in ten Parts, the last on September 17, 1860. Two months subsequently to the latter date (he continues), I was startled by observing in the Medical Journals, November, 1860, an advertisement, that 'next week will be published the "Medical Vocabulary," by Robert Fowler, M.D. Edin.' . . . . It was not, however, till January 5, 1861, or nearly four months after the concluding part of my 'Expository Lexicon' appeared, that Dr. Fowler's 'Medical Vocabulary' was published."

Now, before proceeding to notice the Doctor's subsequent errors of assumption, I will first dispose of these his egregious errors of facts.

My "Medical Vocabulary" was first advertised in the Medical Press on Saturday, October 27, 1860,—just about one month previous to the period implied by Dr. Mayne in his preface. The first portion of my manuscript was in the hands of the printers about the beginning of August of the same year, and I received therefrom the first proof sheet on the 29th of the same month. The proofs followed in rapid succession. The first perfect copy of the work was delivered by the printers to the publisher on November 7 following; and the "Medical Vocabulary" was subscribed to the trade, or published, on November 21, just six days prior to the subscription to the trade of Dr. Mayne's complete "Expository Lexicon," which occurred on November 27, 1860.

The assertion, therefore, that my work was not published "till January 5, 1861, or nearly four months after the concluding Part of" Dr. Mayne's "Lexicon appeared," is simply the reverse of that which is true.

After thus indebting himself "to his imagination for his facts," our lexicographer next proceeds to the unwarrantable assumption that I have made "too free with" his work; usurped "the title of such;" assumed "its plan, peculiar arrangement, &c.," and imitated them, "but imperfectly."

Having distinctly pointed out the singular perversion of dates, so conveniently relied upon by Dr. Mayne, as premises whence to deduce his equally perverted inferences, it would almost appear superfluous for me to further controvert his imputed plagiarism.

> "But he that filches from me my good name,
> Robs me of that which not enriches him,
> And makes me poor indeed."

I therefore feel myself called upon to state, on my honour as a man, that neither before nor during the whole period of the compilation of my "Medical Vocabulary," did I ever see, or in any way refer to, or copy from, any part or parts of Dr. Mayne's "Expository Lexicon." I purposely avoided the work, not only by reason of my own sense of honour, but in deference to the written instructions of my publisher, on his making the arrangements with me in 1858. It was his opinion that such a work as my "Medical Vocabulary" was a necessity of the day. And, inasmuch as no second edition of the little work published in 1836 had ever appeared, or was then (1858) announced, he very naturally concluded that the book was abandoned. Such an inference could not, indeed, have been otherwise, particularly as the sale of the work had been by no means a successful one, the remainder of the edition having been sold off, about twenty years ago, upon the London book-stalls, at a very reduced price.

The author of this little book was, besides, unknown; consequently no inquiry could be possibly made as to his future intentions. To accuse one, therefore, of usurping the title of a work so conditionated, and which for about twenty years had not even been seen in the market, is purely ridiculous.

It is scarcely necessary for me to add, that I have never seen a copy of the first edition of this smaller work of Dr. Mayne's; and we may very reasonably infer, that neither should I, nor any one else, have ever cast eyes upon a second one of it, had it not been for the very favourable reception, both in and out of the Profession, and the consequent very great commercial success, of my own "Medical Vocabulary." My work has now been before the world for the last two years, and had I "filched" but one word only from either of Dr. Mayne's productions, I feel tolerably certain that I should long ere this have had to make my first acquaintance with the interior of the Court of Chancery. I am, &c.

Robert Fowler, M.D. Edin.,
Author of "The Medical Vocabulary."

145, Bishopsgate-street Without, October 13.

COMMUNICATIONS have been received from—

Mr. Noble; Mr. Haynes Walton; Mr. Septimus Briggs Farr; Mr. Soelberg Wells; G. F. F.; A. B.; Henry Smith; Mr. Milne; Dr. Macleod; Mr. Griffin; Secretary of the College of Preceptors; Mr. Carsten Holthouse; Secretary of the Royal Medical and Chirurgical Society; Silk Breeches; Dr. Leared; Dr. Moriarty; Mr. Seymour Haden; Dr. Ansell.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 11, 1862.

BIRTHS.

Births of Boys, 901; Girls, 856; Total, 1757.
Average of 10 corresponding weeks, 1852-61, 1637·6.

DEATHS.

	Males.	Females.	Total
Deaths during the week	595	526	1121
Average of the ten years 1852-61	532·4	518·6	1051·0
Average corrected to increased population ..	..	..	1156
Deaths of people above 90	..	..	4

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	1	3	13	2	3	3	7
North ..	618,210	3	8	24	7	7	7	11
Central ..	378,058	..	5	14	2	1	10	10
East	571,158	5	15	21	3	7	23	14
South ..	773,175	2	21	24	6	6	9	10
Total	2,803,989	11	52	96	20	24	50	52

APPOINTMENTS FOR THE WEEK.

October 18. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

20. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.; Samaritan Hospital, 2½ p.m.

Medical Society of London, 8½ p.m. Dr. Cotton, "On the Therapeutics of Consumption."

21. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Junior Medical Society of London (Council, 7 p.m.), at Charing Cross Hospital. Mr. Frank W. Cooper, "On Some Points in the Treatment of Delirium Tremens." The Paper will be preceded by the exhibition of Pathological Specimens by the Members.

22. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Hunterian Society, 8 p.m. Dr. Fowler, "On a Case of Laceration of the Vagina during Labour—a Medico-legal Question."

23. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

24. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society of London, 8 p.m. Meeting.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—Varicose Veins; Removal of Tumour from Leg; Removal of Epithelial Growth from Cheek; Lithotomy; Removal of Tumour from Neck; Plastic Operation on Nose; For Cleft Palate.

By Mr. Wood—For Thickened Brusa Patella; Radical Cure of Hernia; Circumcision.

CHLORODYNE.—R. Freeman, Pharmaceutist, Kennington-road, London, S., informs the Profession and Trade that he has for years made and extensively supplied CHLORODYNE, in 1oz. and 4oz. Stoppered Bottles, at 1s. 6d. and 5s. each. He guarantees it to be uniformly and properly prepared and superior to any other makers', though their charge be ever so exorbitant; and he is glad to find the low price which he sells it allows the Profession to use it in common practice and public institutions, so that its extraordinary beneficial effects are enjoyed by the poorest sufferers. R. Freeman almost daily receives letters from Members of the Profession, and also the Trade, who speak highly of his Chlorodyne. He publishes the following by permission:—

"I duly received your sample of Chlorodyne, and I liked it so well that I ordered more through my Wholesale Druggist. I think it in every way as good as any I have used, and it has the recommendation of being cheaper —"B. J. BOULTON, M.D., Surgeon Horncastle Dispensary, &c., Horncastle."

"I have administered to several of my patients your Chlorodyne, and I consider it a valuable remedy. It has succeeded perfectly in those cases in which I have used it. In its action it is uniform, and in its effects most efficacious.

"DAVID EASTON, M.D., Medical Officer Rhins of Galloway Poorhouse, &c., &c., Stranraer, Wigtonshire, Scotland."

"Having been in the habit of using Mr. Freeman's Chlorodyne for some time past, I have much pleasure in stating that *it has never failed to have the desired effect* in whatever case it has been administered.

"C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, &c., &c."

"I have had several parcels of your Chlorodyne, and the Medical men who have used it find it equally efficacious with that which is double the price, both having been tried on the same patients with similar results. "W. GRAHAM CARR, Pharmaceutical Chemist, Berwick."

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COMBINED WITH
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From Dr. C. KIDD, Author of standard works on Chloroform:—"Sir,—I think if you would advertise your 'Chlorodyne' more than you do, you would help to beat the other *secret* compounds out of the market. Of the value of Chlorodyne given internally, I have no doubt; it appears to me in that form an anodyne *sui generis* that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of Chlorodyne, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me and recommend your compound, but will never prescribe a *secret* remedy. (Signed) Charles Kidd, M.D., and Surgeon, Sackville-street, Piccadilly, London, April, 1862."

Sold in ½oz. bottles, 1s., 1oz. 1s. 6d., 2oz. 2s. 6d., 4oz. 4s. Prepared by A. P. TOWLE, Chemist, &c., Ardwick, Manchester. May be had from Barclay and Son, Farringdon-street; or through any Wholesale House.

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The great success attending the use of this extraordinary preparation has induced unprincipled parties to manufacture compounds in imitation, calling them after the same name. Medical Men are advised of this dishonourable proceeding, so that they may be guarded against the culpable practice of introducing substitutes in lieu of Chlorodyne, causing thereby uncertainty of action in the treatment of the patient by the Physician, probable disaster to the sufferer, and deception in the preparation.

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ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE IV.—*Blood-Corpuscles of Birds—Structure, Shapes, and Sizes of the Red Corpuscles—Pale Cells of the Blood and Lymph-Corpuscles—Molecular Base of the Chyle—Blood-Corpuscles of Reptiles—and of Fishes—Hunter, Hewson, and Magnus Falconar—The late Mr. Wilson.*

AFTER the description of the structure, shapes, and sizes of the blood-corpuscles of apyrenæmatous vertebrates, we proceed now to a consideration of the corresponding objects of pyrenæmatous vertebrates.

BLOOD CORPUSCLES OF BIRDS.

In this class there is still, as in Apyrenæmata, a large proportion of red corpuscles, sometimes even larger than in man; and the pale globules of the blood, lymph globules, molecules or granules, and the molecular base of the chyle, may all be found as different objects in the blood. As before, the red corpuscles will be first described. Their structure, shapes, and sizes are shown in the Diagrams, and far more extensively in the Tables of Measurements referred to in Lecture III.

Structure.—As we have seen, the red corpuscle of Apyrenæmata, after a very early period of intra-uterine life, is devoid of a nucleus. But in all the Pyrenæmata, of course including birds, the nucleus is a regular and permanent part of the corpuscle, as seems to have been known to Leeuwenhoek and to Emanuel Weiss, and was first clearly demonstrated by Hewson, whose observations were made on the blood of the frog, toad, and skate; and, as far as they go, are so correct that but little can be objected or added to them even now. They are also as applicable generally to birds as to reptiles and fishes.

Fig 2.

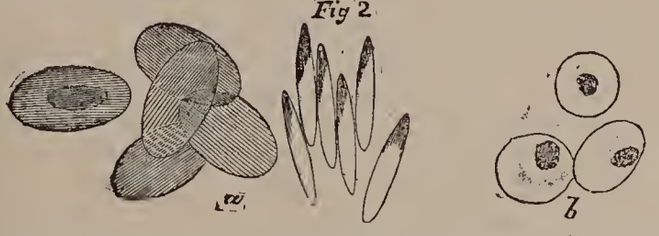

FIG. 2.—Red corpuscles of a bird (the ostrich), on the same scale as the other Figures. At *a*, the corpuscles lying flat, and on edge; *b*, the pale membranous frames of the corpuscles, all containing nuclei, and deprived of their coloured part by water as in Fig. 1. Maceration in water has caused, as usual, both the oval nucleus and vesicle to assume a more or less circular form.

You can scarcely examine the red corpuscles, out of the body, of any of these three classes, without noticing some of the nuclei; and, if you add a little water or acetic acid to the corpuscles, the nuclei will be instantly revealed more clearly and abundantly. Even in blood, dried on a plate of glass, they may be plainly shown by the addition of slight moisture, as that of the breath. But if you treat the corpuscles of Apyrenæmata, including the oval corpuscles of Camelidæ, after any or all of these methods, you will fail to find a nucleus. And thus, among other experiments already mentioned, I was always in the habit of proving the difference of structure between the corpuscles of Pyrenæmata and Apyrenæmata, and that at a time when this important fact was either doubted, disputed, unknown, or denied. Sometimes it was argued that the comparative minuteness of the human corpuscle was the cause of the nucleus not being so apparent; whereas my observations were occasionally made on the blood of Apyrenæmata, with corpuscles as large as in some of those birds in which the nuclei are always very distinct.

The vesicle of the red corpuscle of birds is somewhat stronger, less elastic and viscid, than in Apyrenæmata. It by no means either becomes narrower, or preserves its shape when treated with water, as erroneously represented by Professor Kölliker; but, on the contrary, becomes more or less globular and swollen when first acted on by that liquid, then rather smaller, but yet smooth, after having been long soaked in it, and still retains the circular shape generally. These observations on the action of water are also equally applicable to the red corpuscles of Apyrenæmata generally, agree mainly with the correct experiments of Hewson, and apply as well to the oval corpuscles of Camelidæ. The oval nucleus of the red corpuscle in birds and other Pyrenæmata, when well soaked in water, also assumes a globular or spheroidal form, which probably led him to consider it as of the same figure as the lymph globule. In the second Lecture we have described the points of resemblance and difference between these two objects.

Shape of the Red Corpuscles of Birds.(a)—No bird has yet been found with the majority of the corpuscles otherwise than of an oval figure; but they differ in comparative length and breadth, from a broad to a long and narrow ellipse, and some few may be, and generally are, as also in the Camelidæ, circular or nearly so. All these forms are apt to occur, not only in a single species, but in one drop of its blood. The shape of the nucleus is similarly variable; usually more elongated in relation to its breadth, so that its long diameter may be nearly thrice its short diameter, as in certain Rapaces, Omnivoræ, Zygodactyli, Columbidæ, and Palmipedes; or much shorter, as in some Gallinæ. The most common shape of the vesicle is, assuming the short diameter as 1, the long diameter will be from $1\frac{1}{3}$ to 2. There are some species, chiefly Insectivoræ and Granivoræ, in which the prevailing ellipse of the red corpuscle may be remarkably short and broad, as in the hedge-accentor and the rice-bird; and so long and narrow in some species of other families as to present a notable contrast, as in the snowy owl, butcher-bird, and passenger pigeon. Still, these varieties of shape so often occur with either the typical or aberrant forms in allied species, as to render it desirable that the observations should be repeated, to decide certainly whether the deviations may not be within the compass of change of form to which the red corpuscles of a single individual might be liable. They are either flat on the surface, or rather gibbous from projection of the nucleus, with a groove between the swollen centre and the rim of the vesicle. The thickness of the corpuscle is between a third and a fourth of its short diameter.

Size of the Red Corpuscles.—As might be expected, from their comparative uniformity of organisation, in birds the magnitude of the corpuscles is less variable than in Apyrenæmatous vertebrates, and indeed is not more so throughout the whole class of birds than in a single order of Apyrenæmata, as shown in the diagrams. Generally the corpuscles are about a half larger than in man; seldom nearly, rarely or never quite twice the size of, and sometimes closely of the same size as, the human corpuscles; so that there are a few apyrenæmatous vertebrates, as the great anteater, the two-toed sloth, the elephant, and the fin-backed whale, in which the corpuscles are slightly larger than in some birds, as the lesser redpole and rice-bird. The largest corpuscles occur in the large Struthionidæ and Rapaces, the smallest in the little Granivoræ, and in one, and probably more, of the humming birds. Among the Omnivoræ, the hornbill has remarkably large corpuscles. The short diameter of birds' corpuscles closely corresponds to the diameter of the corpuscles of Apyrenæmata, as will be more particularly noticed in the Lecture on Relations.

Pale Cells and Lymph Globules.—As in Apyrenæmata, the pale cells are common in the blood of birds, and are usually identical with the same cells of Apyrenæmata in structure, shape, and size. The lymph-globules are also, as in Apyrenæmata, generally mere nuclei, with the same exceptions as were mentioned when treating of the human corpuscles.

Granules.—These may be commonly seen in the blood, especially in that of very young birds.

Molecular Base of the Chyle.—At present I have only examined this in certain Anatidæ.

BLOOD CORPUSCLES OF REPTILES.

In structure and shape the red corpuscles are the same as

(a) The shapes and sizes of the corpuscles of Vertebrates generally are more particularly described in the Tables of Measurements referred to in Lecture III., and especially by the Figures in the *Proceedings* of the Zoological Society, February 25, 1862.

in birds; but in size the reptilian corpuscles, as you see in the diagrams, vary so greatly as to afford a remarkable contrast in this respect to birds, and even to Apyrenæmata.

Relatively to the other proximate parts of the blood, the proportion of red corpuscles is greatly diminished in this as compared with the two preceding classes. The largest corpuscles occur in the naked Amphibia, especially in the perenni-branchiate section, as discovered by Wagner; and the smallest in lizards, tortoises, and serpents. Such is their magnitude in the proteus that they may be distinctly seen by the aid of a common hand-lens; they are but little smaller in the Japanese salamander (*Sieboldia maxima.*) In that paradoxical creature, *Lepidosiren*, I found that the red corpuscles have the true reptilian character, being larger than those yet known of any fish, and having also a somewhat stronger and more durable vesicle than that of the red corpuscle generally of fishes. Dr. Gray, a very high authority on a question of zoological affinity, has recently arranged this animal among the reptiles.

As in the other classes, the globules move slowly along the inner sides of the vessels, roll in their onward course round and round on their axes, ever and anon projected into the rapid current of red corpuscles, and sometimes move again to the sides of the vessel, either singly or in such numbers as to form a membrane-like layer of globules there.

Pale Cells and Lymph Globules.—These in certain Amphibia I found identical in size and structure; the difference already described in this respect between the pale globules of the blood and the lymph globules both of Apyrenæmata and birds, not being observable in Amphibia. The pale globules of amphibia are among the largest, yet seldom twice the size of those of man. Granules occur in the blood. The molecular base of the chyle has not yet been found in reptiles.

BLOOD CORPUSCLES OF FISHES.

In this class is a further proportionate diminution in the quantity of red corpuscles, until they nearly or completely disappear, and are substituted by colourless globules. The structure of the red corpuscle is the same as in birds and reptiles, but the vesicle is usually more tender and evanescent. There are great variations in the size and shape of the corpuscles, as discovered by Wagner, especially in the cartilaginous group. They are largest and oval in the sharks and skates; smaller, and even regularly circular, in certain Cyclostomes, as *Ammocœtes* and *Petromyzon*,—the discovery also of Wagner. Their large size in the common skate was discovered by Hewson. In the pike I found them more or less pointed at the ends, though in many other osseous fishes the corpuscles are usually of a regular oval figure, and not differing much in size from those of birds, yet with the disc commonly broader in comparison with its length. The shape may be nearly or quite circular in a few of the corpuscles; and often at least half of them are thus round, especially a few hours after death, when the short ellipse may be almost displaced by the circular form, as may be observed, for example, in the blood of the tench.

We have seen, as a rule, the diminution of the proportionate quantity of the red corpuscles in this class. In *Amphioxus lanceolatus* they nearly or quite disappear, and are substituted by the colourless globules, as observed by Retzius, Quatrefages, Müller, and Wharton Jones. So Professor Kölliker asserts that there are no blood corpuscles whatever in Amphioxus! This species Mr. Yarrell placed as the lowest of the fishes, and it had, in fact, been described by Pallas as a *Limax*. It has been found on our shores; and whoever may take up a systematic investigation of the blood corpuscles of invertebrates, must either begin or end with those of this abject fish, as their connecting link with the vertebrates. Nor can we avoid noticing how the permanent state of its blood is analogous to the temporary earliest blood of the apyrenæmatous embryo. In the glutinous hag, Müller found the corpuscles oval, and even fusiform. On the other hand, there are in the class exceptional examples of a very large proportion of red corpuscles in the blood, with the heart remarkably thick and strong: Dr. Davy has described such facts in certain Scomberidæ, as well as the comparative size of the corpuscles in the great tunny and some of its smaller allies, to which we shall have to refer more particularly in future Lectures.

The pale globules, and the molecules or granules, occur in the blood of fishes; but I have not found the molecular base of the chyle in this class. In the blood, moreover, may often be seen an abundance of fatty globules, varying in diameter from $\frac{1}{10000}$th up to $\frac{1}{2000}$th of an inch, or even larger still. They are identical with the globules common as a diseased state in many Apyrenæmata, especially in Feræ and Quadrumana which have long been pining in confinement.

Hunter, Hewson, and Falconar.—And now, having given the account of the structures, forms, and sizes of the corpuscles of the vertebrate sub-kingdom, we cannot dismiss the subject without some notice of the important labours of Hewson, who established the leading facts on the two former points in the face of remarkable opposition, almost amounting to obloquy, and corrected the strange and prevailing errors of his predecessors and contemporaries, though with but little or no good effect for the science of that day.

It seems amazing that Mr. Hunter, who was ten years older than Hewson, and well knew him and his researches, should have been so little able to estimate their real worth. I will read an extract, to show you Hunter's opinion. After mentioning that Malpighi and Leeuwenhoek probably imagined more than they saw, he goes on to say,—"When an old opinion is partly exploded and a new one brought forward, it becomes only necessary to see how far the new one is just; because, if it be not proved, we must revert to the old opinion again, or to some other. Mr. Hewson has been at great pains to examine the blood in the microscope, and has given us figures of the different shapes of these globules, but there is reason to think he may have been deceived in the manner I have just mentioned. . . . . If they are found of an oval figure in some animals, as authors have described, that circumstance would rather oppose the idea of their being a fluid having a central attraction; but this is probably an optical deception. Whatever their shape is, I should suppose it to be always the same in the same animals, and indeed in all animals, as it must depend upon a fixed principle in the globule itself. Hence the less credit is to be given to those who have described the globules as being of an oval figure in some animals; for they have also described them as being of different and strange shapes even in the same animal." These observations by Hunter were made with a special reference to Hewson's paper in the *Philosophical Transactions* of 1773, and with the most evident dislike of the subject; though Hunter used the microscope faithfully on other occasions. He had in the preceding page remarked of the corpuscles,—"This red part having form, probably led anatomists to pay more attention to it than it deserves; as if they could thence explain any essential principle in the blood or animal economy." How different would his feelings have been had he seen the whole truth, of which so much had been unfolded by Hewson, that only a little more remained to discover in the blood corpuscles alone, the plainest proof of Hunter's darling doctrine of the life of the blood, and the most universal and certain difference between the two great divisions of the vertebrate sub-kingdom! But even such mistakes of great minds are not without instruction; and should teach us diffidence and caution in opposing, without very careful examination, what we may think to be erroneous innovations of our juniors, while, in truth, all the error might rest with ourselves. And this opposition to, and the common neglect of, Hewson, will appear the more surprising, when we consider the extent and value of his researches, which must have quickly established his right to be heard on any physiological question; more especially as it had been recognised by the "Royal Society in 1770, when they awarded the Copley medal for his papers on the Lymphatic System of the Lower Vertebrata."

He was the first to put the physical properties of the blood generally, together with the anatomy of the red corpuscles particularly, on the sure foundation of experiment and observation, and that so correctly as to afford the true basis for future discoveries, and mark an era in this important branch of science. But immediately, and for years afterwards, a knowledge of the blood corpuscles only retrograded, while his view of the formation of a vesicle or cell-wall around a central particle or nucleus was still longer quite veiled in darkness. Indeed, his clear dawn was followed by a cloudy day, which never began to shine or ripen other fruit until warmed by the genial but fitful rays of Provost, Dumas, and Edwards on the Continent, and Young, Hodgkin, and Lister in England. Many of us may too well remember how such respectable writers as Richerand, Majendie, and Bostock,—then our chief authorities,—treated the blood corpuscles or microscope rather as idle toys than as belonging to science. And even now, after

such a long period of contemptuous neglect,—excepting the frequent little attentions of plagiarists,—the great merits of Hewson are not generally recognised, though the graceful tributes of Mr. Ancell, Mr. Grainger, and the eminent Professor Milne-Edwards, must be acknowledged as honourable exceptions.

Hewson's observations should not be regarded as mere particular descriptions, however exact, of different parts of the blood. With this merit he had the much higher one of correct and general views far in advance of his time. He often unfolds central phenomena, and well perceives how they surpass in value mere isolated facts. What are the currents which he described into and out of the red corpuscles, when treated with water, but a demonstrative example of endosmotic force, long afterwards indicated or proved by the researches of Porrett and Mitchell, and finally established evermore for us by the genius of Dutrochet? What is the flatness of the red corpuscles throughout the vertebrata, and which he proved in spite of the prevailing error to the contrary up to and after his time, but a comprehensive and fundamental fact? What is the central particle and vesicle of Hewson but the nucleus and cell of Schleiden and Schwann? Indeed, as to these points he stands in a position even more eminent than that of Higgins in relation to Dalton respecting the atomic hypothesis. Hewson always applied the term "central particles" to the nuclei of the red corpuscles of Pyrenæmata, and included in the same category the globules of the lymph, of the thymus-fluid, and of the spleen; so that we seldom see any piece of so-called news in connexion with the physiology of the conglobate glands or the organs just mentioned without examples more or less paraded in accordance with his views, especially by certain German writers, but commonly without the slightest notice of or reference to either Hewson or Magnus Falconar. Hewson died in 1774, aged 35, and Falconar in 1778, aged 24; and had they not been thus early lost, it is probable that the leading fact of the cell theory, so admirably indicated in the researches of Hewson, would have been established and developed in this country, adding another trophy to the Windmill-street School, at least half a century before the advent of that doctrine on the Continent. It is very singular and remarkable that, of all Hewson's able contemporaries and immediate successors, this generous, zealous, and perspicacious boy, Falconar, could alone fully appreciate the interest and importance of the Third Part of the "Inquiries" of his distinguished brother-in-law, and that while they and the doctrine of central particles were commonly treated with contemptuous neglect. That disingenuous or surreptitious attention and tribute which they have since received has been reserved for our own time. It is, indeed, surprising that any British patronage, or silent approval, of such foreign and pitiful conveyance, as we have recently seen, could have been practised with impunity as to the doctrines and discoveries of our illustrious countryman. This, too, is the name which those foreigners, while taking advantage of his labours, have actually attempted to wipe clean out of the literature of physiology; and yet without any suitable remonstrance from among us, who ought to cherish his reputation as a precious and honourable heirloom!

The late Mr. Wilson.—I have elsewhere noticed the School of Dr. Hunter and his disciples in Windmill-street, of which Hewson was such a brilliant ornament; and must beg to mention that, among the names of eminent teachers there, Mr. James Wilson's ought to have been mentioned. It was only omitted from my ignorance at the time of his antecedents, soon afterwards corrected by the kindness of Sir Benjamin Brodie and the filial respect of Dr. Wilson. I am the more reminded of this now, because Mr. Wilson was one of Hewson's successors in that remarkable School, and of my predecessors as a Lecturer on the Blood in this College.

The Medico-Chirurgical Society of Amsterdam has offered for competition a prize for a treatise, historical, critical, and based upon original physiological and clinical researches, on the therapeutic influence of the inhalation of medicines in the form of gas, vapour, and powder, in the case of diseases of the respiratory organs. The Society desires that the works of Sales Girons, Demarquay, Durand Fardel, Poggiale, and Fournié, on this point, should be consulted. The prize is a gold medal, worth thirty ducats, or 360 francs. Address, Dr. J. W. R. Tilanus, Secretary to the Society, at Amsterdam.

ORIGINAL COMMUNICATIONS.

ON PERICARDITIS CONSEQUENT ON PYÆMIA.

By W. S. KIRKES, M.D.

Assistant-Physician and Lecturer on Medicine at St. Bartholomew's Hospital.

The following communication consists almost *verbatim* of part of one of the Gulstonian Lectures delivered by me before the Royal College of Physicians in 1856, the substance of which lectures forms a portion of a work on "Diseases of the Heart," on which I have been for some time engaged. The publication of this paper at the present time is suggested by the occurrence lately at St. Bartholomew's Hospital of a case so exactly confirmatory of many of the views herein stated, that to those especially who observed the case the details now given may prove interesting.

The train of morbid phenomena developed by the introduction into the blood of the elements of pus or other like disintegrating and decomposing animal matter, though oftentimes obscure and not always constant, is still sufficiently well recognised and understood in the present day to need no special description here. It may, however, be observed, that when, after Surgical operations, wounds, or other local injuries followed by suppuration, the general venous blood is contaminated by the entrance of any noxious material from the affected part, the lungs are the organs which almost invariably suffer first and most. This happens, in great measure, probably, because they present the first set of capillaries through which the vitiated blood has to pass. Hence, in cases of ordinary pyæmia, however induced, the lungs are almost invariably, and sometimes exclusively, the seat of the so-called secondary deposits so common in this form of disease. When not described as existing in the lungs in such cases, it is probably because of their not having been sought for with sufficient care, or because of their having been overlooked, which may readily happen, if they be few in number and of small size, and not specially searched after; for the peculiar colour and texture of the lungs, and their frequent infiltration with blood and serum, in persons dying from almost any internal disease, often render the detection of morbid changes and secondary deposits far more difficult in them than in other organs, such as the liver, spleen, or kidneys, in which such deposits, when they occur, are usually quite obvious.

The changes produced in the lungs in such cases will probably vary somewhat according to the nature of the material whereby the blood has been vitiated. Without discussing these now, or entering at all into the deeply-interesting subject of pyæmia, I may only observe that, whatever be the contaminating matter introduced, many of the results, both in the lungs and elsewhere, are purely of a mechanical kind, and due to the arrest of the foreign particles in the capillaries traversed by the poisoned blood. Such mechanical arrest does not necessarily imply that the particles are too large to traverse the capillaries. Pus corpuscles, for example, are no larger than the white corpuscles of the blood, and, therefore, are not precluded by mere size from passing through vessels which the latter can traverse. Often, too, the foreign matter consists mainly of mere granular *débris*, resulting from the disintegration of pus or other cells, coagulated albumen, or fibrine, and, therefore, far too minute to be stopped even in the finest capillaries, unless under the influence of other than mechanical causes. Probably much of the impediment to the transit through the minute vessels of blood thus vitiated by morbid matters is due to the fact, that the new material introduced is foreign to the healthy composition of the blood, and that its presence interferes with that mutual relation between the blood within, and the tissues outside the vessels,—a relation apparently essential to the due maintenance of the capillary circulation,—and thus leads to retardation and ultimate stagnation of the contaminated blood. Be the real cause what it may, however, an impediment to the passage of blood through the pulmonary capillaries seems to be one of the earliest results of vitiation of the general venous blood by inflammatory or other like products. This impediment soon leads to complete stagnation, and then to coagulation of the arrested blood; then follows gradual decolorisation, and ultimately disintegration and softening of the coagulated blood.

Around and within such foci of coagulated and decomposing blood, inflammation is excited, and this, with its products, contributes to the formation of the peculiar red, then brown or buff-coloured, and ultimately soft and yellowish masses which are often found so abundantly scattered through the lung-substance in these cases.

Sometimes the secondary mischief terminates at the lungs: the amount of contamination may not be great, and the patient recovers; or it may be very great, and the patient dies before any subsequent changes ensue, and the lungs are then found studded with these secondary formations. Usually, however, these formations in the lungs undergo various changes, resulting especially in softening, liquefaction, and decomposition. In this way they become productive both of further serious local mischief, and of dangerous contamination of the arterial blood. When the deposits occur near the surface of the lung, as they often do, they may, by their proximity to the pleura, excite inflammation of the portion of that membrane covering them. Such local inflammation of portions of pleura over secondary formations within the lungs is of very common occurrence, and is of the same nature as the pleurisy over tubercular or other deposits near the surface of the lungs. Sometimes the inflammation extends beyond the part immediately implicated, and may become more or less general. Sometimes, again, the portion of pleura covering one or more of these masses, softens, sloughs, and then the contents, which may have liquefied and suppurated, pass into the pleural cavity, and excite general and intense pleuritis. I have seen several instances of this kind; also more than one instance in which not only the softened matter from secondary formations, but also air, had passed into the pleural cavity, and thus given rise to pneumothorax, just as pneumothorax originates in the bursting of a tubercular vomica near the surface of a lung.

Besides exciting local mischief and leading to pleurisy and pneumothorax, deposits in the lungs may soften, break up, and be converted into reddish-brown or greyish pulp, or liquefy into a yellowish-white purulent material, and thus give the lung the appearance of being studded with so many abscesses.

Beyond the danger of such collections of matter bursting into the pleural cavity, there is the even greater danger of their contaminating afresh the blood in the pulmonary capillaries from which the pulmonary veins spring, and thus giving rise to wide-spread mischief on the distribution of the arterial blood thus vitiated to the various systemic parts of the body. Such a result not unfrequently ensues, and it is, probably, the chief cause of the various secondary inflammations and formations of pus found in and about joints, within muscles, the substance of internal organs, and other parts of the body, when the venous blood has been contaminated by phlebitis or any other like cause, and has led to the formation of pyæmic masses within the lungs. It is probably quite exceptional for purulent deposits to be found in various parts of the body after Surgical operations, or other such causes of vitiation to the venous blood, without the lungs having been first and principally affected. Part of the vitiated blood may sometimes pass through the pulmonary capillaries without its foreign constituents being all filtered out, and thus the systemic organs, as well as the lungs, be affected in the first instance; but it is probably by the softening of masses first occurring in the lungs that arterial blood is usually contaminated, and deposits elsewhere are induced. When arterial blood is thus contaminated at the lungs, all parts to which it is distributed are liable to suffer. Some parts, however, usually suffer more than others, partly, perhaps, from their receiving a larger and more direct supply of blood, though chiefly from causes which are as yet imperfectly understood.

Among other parts which may be the seat of such tertiary —if I may so call them—formations, consequent on this vitiated state of the arterial blood, the muscular substance of the heart is occasionally found included. The occurrence of the deposits in this situation seems scarcely to have attracted the attention of pathologists, yet it is a circumstance involving features of grave interest and importance.(a) Several cases of the kind have fallen under my notice. The following are the main points observed in one such instance:—

A lad, about 13 years old, struck his left knee violently against a piece of wood, and for several days suffered much pain in the part. Five days afterwards, general febrile symptoms, with pains in the limbs and joints, ensued; and after these had lasted three days, he was brought to St. Bartholomew's Hospital in an almost typhoid state, with sunken features, congested conjunctiva, dry lips coated with sordes, petechial spots over his arms, and a feeble pulse of 140. On auscultation a rough pericardial friction-sound was detected over the heart. Several joints were tender on pressure, and one knee swollen. The articular affection and the pericardial friction-sound were sufficient to justify the opinion that the lad was suffering from rheumatism, attended with cardiac complication, and to warrant the application of leeches over the heart, and the employment of calomel and salines at short intervals. After a bad night, during which he was rambling, moaning, and quite sleepless, the lad's aspect and condition next day were plainly indicative of rapid sinking, and in a few hours more he died. Examination after death disclosed much that was instructive. The left knee and thigh, which were the parts first injured by the blow, presented most extensive mischief. The periosteum of the femur was completely separated from the lower three-fourths of the bone, except along the linea aspera, by a large quantity of thick, pale-brown, gruel-like material, which was also largely infiltrated into the soft parts of the thigh. The shaft of the denuded femur presented a smooth, healthy surface, and, on section, the bone was found quite natural. The knee-joint itself was healthy, as were also the other large joints examined, with the exception of the right elbow and left hip, both of which contained a turbid, oily fluid, instead of the proper synovia. Most of the veins proceeding from the neighbourhood of the left thigh, which was so extensively diseased, were more or less blocked up by old coagula: the deep femoral was almost completely obstructed by them. The femoral itself contained recent clots mingled with the old. From some of the divided veins small drops of yellowish puriform material, together with little pellets of old fibrine, escaped on pressure. The right femoral vein and its branches, and the iliacs on both sides, were healthy and free from old coagula. The inferior cava, however, just at the entrance of the common iliacs, contained, together with recent soft clot, a lump of old, brownish coagulum, freckled in places with whitish specks, and slightly adherent to the inner surface of the vein, which at that part was somewhat roughened and reddened. Along the remainder of its course the inferior cava was healthy, and contained recent clot.

The lungs, as might be expected from this extensive mischief in the thigh, and the evidence of much morbid matter having been introduced into the veins, were the seat of abundant secondary formations. These varied greatly in size, colour, and consistence: some as small as shot, others as large as hazel-nuts; some quite firm, and of a deep reddish-black colour, like masses of pulmonary apoplexy; others, in the opposite extreme, soft, pulpy, and semifluid, consisting of greyish or yellowish-white purulent material; while between these two extremes were all varieties, indicative of gradual decolorisation and breaking-up of previously dark red solid masses.

It may be observed here that secondary formations in the lungs, resulting from contaminated blood, very frequently present the same general characters as those occurring in this case. Occasionally, their resemblance to masses of ordinary pulmonary apoplexy, and the transformations which such masses undergo, is so close that they might readily be mistaken for them, were it not that the formations in question vary far more in size, and are more numerous, than those of pulmonary apoplexy, and that they are usually scattered through all parts of the lungs instead of being confined to the lower portions, as is generally the case with pulmonary apoplexy. Moreover, the absence of valvular disease of the heart, of general congestion of the lungs, and other frequent concomitants of pulmonary apoplexy, will usually serve to distinguish the two kinds of masses, should there be any doubt about them.

The pericardium was universally inflamed, its surface vascular and coated with lymph, and its cavity containing much turbid fluid. Beneath the lymph covering the surface of the heart, and underneath the pericardium, several small yellowish nodular elevations were found imbedded to some depth within the muscular substance of the heart. These masses, when cut into, were found softened in the centre. Further examination of the muscular tissue showed that similar yellowish masses were abundantly scattered through the substance of the left ventricle and of the septum, the right ventricle being entirely free. The masses varied in size,

(a) Dr. Wilks, however, I now find, is aware of the significance of this fact, and of its important consequences. See his "Pathological Anatomy."

shape, and consistence; some as large as a split pea, and either imbedded in the thickness of the walls, or projecting on the outer surface or the interior of the heart; some were tolerably compact and firm, others softened in the centre; while several were composed of a thin creamy material, which ran out when the masses were cut across, and thus left so many hollow spaces, like small, half-emptied cysts or abscesses. The number of these deposits was large, no section of the left ventricle being made without disclosing several; some looked like mere points or drops of pus: there was no undue vascularity around any of them. All the valves were healthy. The right cavities contained ordinary separated coagula, which presented the general characters of recent healthy clot.

There were several deposits in each kidney; some presenting the character of minute drops of pus surrounded by a zone of redness, others consisting of larger masses of mingled red and yellow, identical with what used to be described as patches of "capillary phlebitis." There were also several deposits of thin, milky-looking pus in the muscles of the right arm and forearm, and in other parts. These purulent masses, however, were quite different in character from the greyish-brown, gruel-like material about the left femur, and had, probably, a totally different origin, being, no doubt, true secondary, or rather tertiary formations.

Now, what were the most prominent features presented by this case? A severe blow over the knee, followed, after three days' suffering in the injured part, by general febrile symptoms, pains in various joints, petechial spots on the surface indicative of contaminated blood, inflammation of the pericardium, great prostration, and death in eight days after the receipt of the injury. After death, there was found extensive mischief about the part first injured—the periosteum separated from the bone, and the adjoining soft tissues infiltrated with exuded matter; old and degenerating coagula in the veins leading from the damaged part; abundant deposits in the lungs, many of which had softened down into abscesses; deposits of pus in the muscular tissue of the heart, and inflammation of the pericardium, without any attendant affection of the valves; and, lastly, deposits of pus in the kidneys, and in various parts of the muscular system.

What is the explanation of this chain of morbid phenomena? Clearly, the local injury was the first link in the series, for it was inflicted while the lad was in health, and it preceded by several days the manifestation of other symptoms. Extravasation of blood, with subsequent inflammation and suppuration between the periosteum and the bone, probably succeeded the blow, for the patient suffered much pain in the part for the next three days, The exuded matter and extravasated blood probably remained pent up for awhile beneath the periosteum, and from this source the venous blood became contaminated by the introduction of morbid material within it. The lungs being the organs through the capillaries of which the vitiated venous blood would have first to pass, the first and chief stress of the mischief would naturally fall upon them, and hence the abundance of the secondary masses they presented. The subsequent softening and liquefaction of these masses would tend to contaminate the blood brought by the pulmonary veins to the left side of the heart, and in this way the whole arterial current might be vitiated, and the deposits of pus in the muscular tissue of the heart, the kidneys, and elsewhere, be readily explained.

So far the interpretation of the several phenomena in the case seems quite obvious, for a closely-parallel series of events may not unfrequently be traced in other instances. But how are we to account for the inflammation of the pericardium? It was obviously not of rheumatic origin, for the pain and swelling of the joints was doubtless due to subsequent deposit of pus within and around them, and there was no rheumatic odour of the skin, and, what is perhaps more conclusive, there was no affection of the valves of the heart, for it is most rare to meet with rheumatic pericarditis independent of coincident disease of the valves. The correct interpretation probably is, that the pericarditis was caused by the deposits in the tissue of the heart, which, either by their mere proximity to the surface, or by actually bursting into the cavity of the pericardium, had excited inflammation of that membrane. The occurrence of partial or universal pericarditis from such a cause is rendered probable from the parallel occurrence, already alluded to, of partial or universal pleurisy in consequence of secondary deposits within the lungs.

I have met with several cases of pericarditis associated with the same chain of phenomena as observed in the instance just narrated; namely, evidence of some primary, local mischief in a bone or joint, followed by symptoms indicative of contaminated blood, deposits in the lungs, which had broken up and apparently contaminated the arterial blood, and subsequent deposits in various parts of the body, including the muscular substance of the heart. In some instances, the soft, pulpy state of the pericardium over portions of these deposits or small abscesses at the exterior of the heart, seemed to leave but little doubt that part of the contents of some of them had escaped, and thus almost necessarily excited inflammation of that membrane.

One such case, together with the recent instance at St. Bartholomew's, I may briefly introduce here, before offering the general remarks originally suggested by the case detailed in the former part of this paper.

A boy, about 17, was admitted into St. Bartholomew's Hospital under the late Mr. Stanley's care (July, 1854), and died in a few days with symptoms of pyæmia. Seven days before his death he was attacked, while in ordinary health, with pain in the right groin and thigh; this increased so much that next day he was unable to go to work. The pain continued without extending to other joints, and was speedily followed by febrile, then by typhoid symptoms, accompanied by petechial and pustular spots over the body. On the last day of his life the physical signs of pericarditis were detected. On autopsy, a large collection of greyish pus was found in the right hip joint, but there seemed to be no disease either of the articular cartilage or of the adjoining bone or periosteum. Within the lungs were abundant purulent deposits, many of them near the surface. Patches of recent pleurisy, with soft, friable lymph, were observed over these superficial deposits. The pericardial sac contained turbid fluid, while its two surfaces were roughened by recent lymph. At first sight no purulent deposit was observed in the muscular substance of the heart, but subsequent examination detected at least one small collection of pus near the external surface of the organ; probably closer examination would have revealed more. The valves of the heart were quite healthy. Several small deposits of pus were found in one kidney; the other kidney, as well as the other viscera, were not examined. There was no affection of the right femoral, iliac, or the inferior cava vein.

(To be continued.)

ON THE ABLATION OF CANCEROUS GROWTHS.

By JAMES ARNOTT, M.D.

The principal objection to the removal of cancerous growths by the knife or caustic is,—as has been ably pointed out by Mr. Paget in a lecture, recently published in the *Medical Times and Gazette*,—the danger of the operation. If this danger could be obviated, there would often be great advantage from the operation; the patient's sufferings might be mitigated, and his life might be prolonged. But a mortality of ten per cent. from the excision of the growth, according to the statistics of Mr. Paget, or sixteen per cent., according to those of M. Lebert, is too great a risk to be incurred, unless this chance of prolongation should, from the nature of the individual case, be very considerable

The danger from caustic, however, is admitted to be much less than that from the knife; but the pain it produces is severe and often intolerable. What danger accompanies its use, mostly proceeds from the exhaustion caused by this agony. Mr. Paget states that there exists no effectual method of preventing the pain from caustic; but this statement only shows that he is unacquainted with the anæsthetic virtues of intense cold, used in combination with caustic. He has probably only witnessed its imperfect application. His acquaintance, however, with local anæsthesia, from the short application of cold in operations by the knife, will enable him to judge what the effect must be, in operations with caustic, of the much stronger and more protracted congelation which the Surgeon is then able to avail himself of. In the *Medical Times and Gazette* for 1858, I inserted a detailed report of a case of cancer in the breast, in which the pain arising from nitric acid and chloride of zinc was thus completely prevented. As the patient was in the Middlesex Hospital, the mode of proceeding was witnessed by many Surgeons. Mr. Langston Parker, in his publication

on the treatment of cancer by caustic, has mentioned the beneficial effects of a much less perfect anæsthetic apparatus constructed on the same principle.

In the removal of cancer, congelation not only prevents the intense suffering that would accompany the action of caustic, but, when much prolonged, it furthers this action by adding its own destructive powers. It will alone destroy the growth. The objection to its being employed alone is the length of time required, and the difficulty or trouble of the proceeding; but surely, if it has superior advantages in eradicating the disease, this objection should have little weight. Such a mode of destroying the morbid part is unaccompanied with the irritation excited by caustic, and the application itself is a most powerful preventive of inflammation. Congelation used for this purpose must be produced by the strongest frigorifics, and, in order that it may extend to a sufficient depth, must be employed simultaneously with pressure. This can be done by filling, with the semi-fluid freezing mixture, a very deep gutta-percha cup modelled to the part.

Congelation, properly applied, and not pushed to the degree required for the destruction of a cancerous growth, will at least always remove or mitigate pain, check or retard the progress of the disease, or convert an acute into a chronic affection. If improperly applied, the disease may be aggravated instead of being relieved or arrested. Were effectual congelation in cancer a much more troublesome proceeding than it is, it would surely be better to make trial of a method of so much promise, than persist in a routine which long experience has proved to be of so little avail—a routine manifesting the hopelessness of the Surgeon, and more frequently aiming at present ease and euthanasia than the prolongation of life.

London.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

LECTURE ON SYPHILITIC AFFECTIONS OF INTERNAL ORGANS.

By Dr. WILKS, Physician to the Hospital.

You have probably heard much of late of the syphilitic diseases of the internal organs, but so recent has been the admission of the existence of such affections that, when only a few years ago I took specimens to the Pathological Society, the Profession received the account with more than scepticism. This was no doubt due to the mistaken views of the facts and opinions which were wished to be promulgated. When, for example, a fresh organ was introduced to notice as thus affected, it was supposed that an attempt was being made to form a foundation of syphilis for a large number of visceral diseases, and every fresh instance was looked upon as an attempt to multiply this already-admitted extensive evil. This, however, was a mistaken view of our object, for no such attempt was made: the novelty being simply this, that a more rigid pathological research had discovered that other tissues than those originally supposed might be affected by syphilis, or rather, that the internal organs might be affected in a similar manner to the external. That so apparent a conclusion was not arrived at before, was due probably to the fact previously alluded to—the division of our Profession into Surgery and Medicine, and thus, as syphilis belonged to the former department, the external relations of the disease were alone studied; and even now I am sorry to say that, although the Physician claims his right to recognise the disease as affecting the internal parts, an opposition still exists on the part of the Surgeon to admit that any regions of the body are affected except those immediately under *his* cognizance. Why such opinion should exist is scarcely to be understood, since all probabilities are in favour of other tissues being affected besides those immediately under the notice of the Surgeon; for it must be remembered that, ever since syphilis has been known, the Surgeon has recognised, as its secondary effects, diseases of the bones, of the skin, of the eye, and even changes in the interior of the body, as far as his senses would allow him to penetrate: thus, the tongue has not passed unobserved, nor the pharynx, nor larynx, nor the muscles generally, nor even one viscus which happens to be in a tangible position, the testis. What we now maintain, therefore, is that, owing to the greater attention paid to morbid Anatomy, we have found the internal parts of the body affected in a similar way to the external. This admits of proof, but the present knowledge of the facts would make it appear remarkable, were it not so.

The statement regarding constitutional syphilis is this:—there is a disposition to the formation of a low organised lymph in various parts of the body, and which, in the course of time, if not absorbed, remains as a deposit of hard, fibrous tissue. I believe that it is in the stage which is styled "the secondary syphilis" that this occurs, although, of course, if the deposit be dried up into an insoluble mass, it would remain for years, and be discovered in those who had passed into what is called "tertiary syphilis," or be found in those who had actually recovered. Surgeons have varied much in their opinion as to the symptoms and changes which should be classified under secondary, and which under tertiary; but as regards the present question, that of the deposit of which I am now speaking, I should say it was in the secondary stage, and at an early period of the syphilitic taint, and not at a remoter or in the cachectic condition, that it occurs, although, of course, the deposits may remain and be found at any later period. I should regard a node on the bone as amongst the secondary effects; whereas, if this node softened, and the bone became carious, this would be an ulterior result. So certain rashes and tubercles in the skin would be secondary, and pustules and sores tertiary. In thinking of this subject from a therapeutical point of view, I have long been under the impression that the value of absorbent remedies, as mercury and iodide of potassium, is in proportion to the formation of such low organisable material, and that these remedies are not curative in relation to the syphilitic poison itself: thus the failure of the iodide in secondary syphilis attended only by simple rashes on the skin, but its efficacy where pains in the bones exist, and other symptoms indicative of an inflammation of the fibrous tissues, with a tendency to the production of lymph.

I say, then, that in constitutional syphilis there is a disposition to the pouring-out of lymph of a low quality in various parts of the body, and that probably no organ of the body is exempt, its seat being probably the fibrous or areolar structures. I have said that the Surgeon had recognised this disposition to the production of lymph in the chancre itself; also, unless the disease was cured, or, according to modern theories, was of a peculiar character, that the constitution might become affected, and thus the skin be involved, the bones present nodes, lymph might almost be seen exuding on the iris—that condylomata might appear about the genital organs, nodules in the tongue and other muscles. We now also say, further experience has proved that nodules of a similar character which form in the muscles, the larynx, or as nodes on a bone, may originate in the solid organs of the body; and it is in this deposition of a low organisable lymph that we would place the peculiarity of the affection. Thus, in syphilitic ulceration of the larynx or pharynx this peculiarity is observed; and in the case of the former there is sometimes merely a nodule, without any ulceration whatever.

I will now go through the organs *seriatim*, and in so doing I need only allude to the deposition of lymph on the iris, to the condylomata and tubercles on the skin, and to the nodes on the bones. In the last case we find a low organisable lymph poured out beneath the periosteum, which has not much disposition to soften, and is readily absorbed. I may here say that, although no one has ever doubted that such nodes result from syphilis, yet it does not follow that the deposit has such peculiarities that, when examined microscopically, it would be regarded necessarily as syphilitic; and yet such argument is constantly used in respect to similar deposits in the internal organs. For when it is maintained that these are so constantly observed that no doubt can exist as to their cause, an objection has been made, that no peculiarities of structure can be

found in them necessarily indicative of a syphilitic origin. On the same argument, I say, we might doubt such a disease as syphilitic iritis or periosteal nodes, because the lymph presents no peculiarities.

In the muscles such fibrous deposits have long been recognised, especially in the tongue. They are peculiar in not growing from a centre like other tumours, but rather infiltrations in the tissue; thus they are not perfectly circumscribed, but are found mixed up with the muscular tissue. I have lately had under my care two cases of children who had several large nodules in the muscles of the limbs, and which were no doubt syphilitic.

In the lymphatic glands the enlargement from fibrous deposition is well known, so that you are in the habit of daily witnessing the Surgeon feel the neck for enlarged glands in cases of suspected syphilis.

Ulceration of the pharynx you know is very common, but you will observe the thickening of the edges of the ulcer, and even the dense fibrous structure at its base.

In the larynx you will observe the same fact, and also, without any ulceration, a simple fibrous deposit. In the specimen which I now show you, the glottis is entirely obstructed by a hard nodule of the same character as a node in the bone, and of a similar kind to the deposits in the liver of the patient whence it came.

As regards the internal organs, the liver is the one which was first suspected to be affected. Here we find distinct, hard, fibrous nodules in its substance. These, if been long present, are tolerably circumscribed, but cannot be entirely separated from the surrounding tissue. In some cases, where a partial absorption has taken place, the tissue is puckered up, and a cicatriform appearance is produced. Thus, in these several specimens of liver you will see all these appearances. Here are some with tolerably circumscribed nodules, others sending out processes, and some where partial absorption has taken place and cicatrices left; in some, more diffused masses, which are adherent to the diaphragm.

Some writers, as Gubler, have described a peculiar induration of the liver as found in children who have died of syphilis. From their description it would appear as if an albuminous product had been poured out, causing an enlargement and induration of the organ. Although I have seen the deposits of which I speak in the livers of children who have had hereditary syphilis, I have not yet met with this enlargement or induration of the organ. From the description given, it is scarcely distinguishable from the lardaceous or waxy change; and as this results from syphilitic cachexia, I have thought whether this may not be the condition referred to.

I have here two specimens of spleen, which came from syphilitic subjects, in whom the liver contained the deposit already spoken of, and, therefore, have no doubt that the similar deposit therein seen is of an identical character.

In the heart, as well as in other muscles, the deposit may no doubt occur. In this organ which I hold in my hand you will see a mass of fibre-tissue in the septum, and quite unconnected with the surface of the heart, as is usually the case when such fibrous tissue is the result of an ordinary inflammatory process. Here the adventitious fibre is incorporated with the muscular tissue, as when occurring in other parts of the body. I think, therefore, it highly probable that this is a specimen of syphilitic disease.

In the lungs, probably, also the same occurs, although, from the softening changes which rapidly take place in these organs, it may be constantly overlooked, and the case be regarded as one simply of phthisis. Occasionally, you may find the deposit in an early stage, as in this lung which I now have in my hand. This came from a young man who had syphilitic deposits in the liver; and the disease is seen to consist of two rounded masses in the substance of the lung, quite circumscribed and firm, and presenting an appearance quite different from the ordinary tubercular or inflammatory products. Moreover, the microscope showed it to consist of a fibre-tissue, instead of one made up of cells.

In the testes such deposits are very common. Here are several specimens, showing distinct nodules, also fibrous tissue pervading the organ in a more irregular manner; also other specimens where the organ is quite destroyed and indurated by the new product. You know it has been a question with Surgeons as to the frequency or common occurrence of testitis as a part of syphilis, and I have heard very opposite opinions expressed about it; but the subject of acute inflammation is not the one of which we are now speaking. I allude to a slow and painless production of a low organisable lymph in the substance of the organ, and which, probably, would not come before the notice of the Surgeon whilst the patient was under treatment for any of the more severe consequences of the disease.

As regards the nervous system, much more extended observation is required in order to discover the precise seat in which the deposit occurs. As regards the nerves, there can be no doubt that such deposit is constantly occurring in them. We had a patient who had long suffered from syphilis die with a tumour of the facial nerve, which corresponded in all particulars with the syphilitic; also another, who had long suffered from pain in the leg, who had a deposition of same kind in the sciatic nerve; she also had a similar material thrown out in lung and liver. These remarkable specimens of nerves in this bottle, where every nerve in the body is covered with fibrous nodules, the cause is, in all probability, syphilitic, as the subject was a prostitute who had laboured under the disease.

The most important cases are those where the brain itself is affected; those cases where cerebral symptoms have long existed, and especially epilepsy. In such we find a quantity of tough, yellow, fibrous tissue uniting together the surface of the brain with the adjacent membrane, and this again adherent to the bone. The cortical structure of the brain at the affected spot is often partly destroyed, and the adventitious material occupies its place. The question has still to be solved as to what structure is primarily affected. Many have given the authority of their name to the opinion that the disease commences first in the bone, but this is simply for the reason that the osseous system is that which has so long been recognised as liable to be affected; but since we now know that other structures may be similarly attacked, we are prepared to look for its commencement in other parts, and even in the brain structure itself. As regards the latter position, however, I do not know of any recorded case where a tumour or deposit of undoubted syphilitic character has been discovered, although, from cases continually before us, and which recover by appropriate remedies, a supposition of the occurrence is constantly suggested. The cases which are so frequently met with are those just named, where the deposit involves both sides of the dura mater, and includes in it the bone on one side and the brain on the other. The probabilities are in favour of its occurring in the dura mater, just as it arises in the periosteum, on the exterior of the cranium.

Probably many other parts of the body may be affected in constitutional syphilis; and I have long thought that the coats of the blood-vessels undergo a change, whereby they become thickened, and a deposition occurs on the interior, with the ordinary ulterior results.

I might also have said, when speaking of the pharynx, that the ulceration may extend to the upper part of the œsophagus, and thus, as in this specimen which I hold in my hand of stricture of this tube, the contraction I believe to be due to a cicatrisation of a syphilitic ulcer.

Placenta.—That the placenta may be affected in the manner described, and be a cause of abortion, is an opinion which I heard expressed in this Hospital long before anything was known of the subject of which I am speaking. The late Mr. Wilkinson King collected several cases of abortion connected with a change in the placenta, and which he believed to be due to syphilis.

As an ulterior effect in syphilitic cachexia, especially when the bones are affected, the viscera undergo the change known as the lardaceous or waxy; but of this I shall speak in my next Lecture.

KING'S COLLEGE HOSPITAL.

OBSTINATE CONSTIPATION FOR SIX DAYS—FÆCAL VOMITING—ABDOMINAL SECTION—DEATH—AUTOPSY.

(Under the care of Dr. JOHNSON and Mr. FERGUSSON.)

[Reported by Dr. TONGE.]

WILLIAM W., aged 12, was admitted into King's College Hospital on June 19, at 11 a.m., for obstruction of the bowels.

On the afternoon of Friday, June 13, he was lifting a heavy hamper off the ground into a van, when he felt a sudden pain in the abdomen about the umbilical region, and a desire to go to stool. The pain ceased in about ten minutes, and he felt

as well as usual till June 16, at 7 a.m., when the pain returned in the same situation, and continued till 11 a.m. He passed a motion during the morning of Monday, and vomited some yellow fluid. Some castor oil and powders were given him by a chemist, but they were vomited immediately. On June 17, an enema was given, but it did not bring away anything. The abdomen gradually became more and more swollen, and the vomiting ceased. No motions were passed and no blood.

On June 18, he was seen by Dr. Johnson in the evening. The abdomen was moderately distended, very little tenderness on pressure; pulse 80 to 90; respiration quiet; features sunk, and a peculiar look of oppression. The case had the appearance of being one of obstruction of the bowels from a mechanical cause.

19th.—Lies quite quiet, and does not complain of pain, except now and then about the umbilical region. No very great tenderness on pressure over the abdomen, which is very much enlarged. No hard tumour of any kind can be felt, and no hernia exists. Has not vomited since the afternoon of June 17, and passed no motion since June 16. Tongue slightly coated. Pulse 90. Ordered a warm bath, and warm water injection through a long tube while in the bath; and afterwards an enema of ten drops of tincture of opium and two ounces of starch, every four hours, was ordered. Beef tea diet, and brandy ʒss. every two hours. The tube could not be passed more than six or seven inches beyond the anus. No fæcal matter was brought away by the warm water injection, and the first few opiate injections were not retained. Vomited some greenish bile in the afternoon. In the evening another attempt was made to pass the tube up the rectum, but with no better success than in the morning. No stricture of the rectum could be felt by the finger.

20th.—The matters vomited are greenish-yellow. He can keep nothing on his stomach. No motion passed, and only two enemata have been retained.

21st.—Vomited matters are brownish, and have a fæcal appearance, but do not smell very strongly. Tongue brown, and rather dry. Pulse 100, small. Abdomen more swollen; very little tenderness on pressure. Beef tea to be substituted for starch in the injections.

22nd.—Vomits matter, which is more decidedly fæcal, and he cannot keep anything on his stomach. Pulse 120, of rather better quality than yesterday. When the abdomen is percussed, he says it does him good. It having been determined that an attempt should be made to relieve him by operation, Mr. Fergusson proceeded as follows at 2.15 p.m.:—

Operation.—The boy having been put under the influence of chloroform, and the bladder emptied by a catheter, an incision was made in the middle line of the abdomen, commencing three inches above the umbilicus, and ending about three and a-half inches below it. Some serous fluid escaped, and the small intestine protruded; its surface was red and granular, and some flakes of lymph adhered to it here and there. It was found necessary to puncture the intestine by a trocar, and evacuate the contents (yellow, ill-smelling fluid), before the seat of the obstruction could be determined. A coil of intestine was found in the left iliac region, excessively dark and congested. At first it appeared that a band encircled the bowel; but on turning the bowel round, it was discovered that the mesentery and intestine had been twisted round, so as to constrict the bowel and obstruct the circulation. The twist was readily undone, and the bowel then appeared to be free. A diverticulum, about two inches long, went off from the bowel where there was most congestion, but did not appear to have been concerned in causing the obstruction. The intestine in the neighbourhood of the obstruction was gangrenous, and so soft that it broke down under the finger, and two ligatures had to be placed on it. The intestines being much distended with fluid, it was found impossible to replace them without again puncturing with the trocar. The edges of the incision were brought together by the interrupted suture, and the wound dressed with wet lint.

After being removed to the ward, small quantities of brandy and water were given him at intervals, but were all vomited. Half a drachm of tincture of opium in water was also given, but was almost immediately rejected. The pulse, which remained pretty firm during, and for a short time after, the operation, now began to flag, and he gradually sank, and died at 6.20 p.m. Two natural motions were passed shortly before death.

Autopsy Twenty Hours after Death.—The intestines, as seen during the operation. The part where the twist had occurred was very dark for about eighteen inches. The whole of the small intestine above was much dilated and filled with liquid fæces; below there was about a foot of ileum empty, passing into the cæcum; this was bound down by old adhesions across the brim of the pelvis. The mesenteric glands were enlarged by old strumous disease, and the peritoneal surface of the mesentery was somewhat granular, as if from tubercular deposit. The mesocolon was very short, the sigmoid flexure very tortuous, and the whole of the large bowel empty.

It seems likely that the fixed position of the lower end of the ileum rendered the bowel just above more liable to be twisted, and to remain in a twisted position.

THE LONDON HOSPITAL.

ABSENCE OF THE SECOND MOLAR TOOTH—TUMOUR OF LOWER JAW IN THIS POSITION—OPERATION.

(Under the care of Mr. MAUNDER.)

E. J., aged 16, the subject of a tumour of the left side of the lower jaw situated opposite to the site of the molar teeth.

May 6.—The swelling is ovoid, its longest diameter being in the direction from angle to symphysis, very hard as though bony and projecting both outwards, and inwards towards the mouth, having much the appearance that the jaw would have supposing a walnut to be contained within its walls. It has existed some twelve months, having slowly reached its present size unattended by pain.

On examining the teeth the second molar of the left side is found to be absent, and the anterior and only existing molar is carious. The normal number of molars is present on the sound side.

17th.—Mr. Barrett removed the carious tooth, the fangs of which were being absorbed, but this operation did not assist the diagnosis.

June 26.—The tumour is larger towards the angle of the jaw, and the gum over the site of the absent molars is swelled and presents a fissure posteriorly giving exit to pus. Pain has been experienced during the last fortnight.

It was determined to explore the tumour by cutting into it with a strong round-pointed scalpel, along the upper margin of the gum, thus giving exit to pus. On breaking down the inner wall of the alveolar ridge with an elevator and removing a small portion of the same with bone-forceps to insure a permanent opening, the finger could be passed into a cavity, lined by a soft membrane, and large enough to contain a walnut. Mr. Barrett was of opinion that the tumour was the consequence of an abnormally placed tooth, the distension of the bone being probably due to a distended tooth-capsule. No tooth was found in the cavity.

August 8.—The tumour is as usual, and causes no inconvenience.

The Health of Garibaldi.—The Turin correspondent of the *Times*, dating October 18, writes:—"It is somewhat difficult to get at the positive truth with respect to Garibaldi's health, but from what I can gather there seems to be little doubt that the healing of his wound makes no progress. As I told you in a previous letter, the Italian doctors are almost unanimous in their opinion that the bullet is in the wound, and think, as a matter of course, that no permanent improvement can take place until the leaden foe is removed. Those who very lately visited the heroic captive at the Varignano were painfully struck with his wan and worn appearance. He is very thin, his temples are sunken, his hands emaciated, the colour of his skin is greatly faded. His countenance is calm and cheerful, but the beholders fancy they can descry an under-current of settled melancholy under that well-affected serenity."

Death from Drinking Rum.—An inquest was held on Monday last, at Poplar, on the body of a man who was found dead on board a ship in the West India Docks. He had gone on board sober at six o'clock on Friday night, but was not noticed till found dead next morning. The ship had just arrived from India with a cargo of rum; and as at the post-mortem examination the man's brain, liver, and stomach smelt strongly of rum, it was concluded that he had drunk the rum till he became comatose, and died. Verdict accordingly.

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Medical Times and Gazette.

SATURDAY, OCTOBER 25.

POISON OR PERFORATION?

It is a bad thing for the flock when the watch-dogs are constantly giving false alarms. If we may liken society to a flock of sheep, exposed to the insidious attacks of wolves in the guise of the secret poisoners whose existence we are told to believe in, it will be an unlucky thing if the scientific authorities, who ought to protect us, fall into discredit on the ground of their raising false alarms. Whether this is likely or not, the following case will show.

We must begin by saying that we take the particulars as we find them in the newspapers. But we will not do Dr. Letheby or Mr. Chandler the possible injustice of supposing they are correct. We will treat the case as a *myth;* only let it be observed that it is a myth which has attained currency and authority, and which, if not suppressed, will have the same force as if it were true. Let us see, then, what the results would be if it were true.

We read in the *Times* of October 20, 1862, and in the *Telegraph* of the 17th, an account of an inquest on a girl of fourteen, named Elizabeth Ann Abdallah. There is no doubt that she was taken ill on Sunday night, the 25th September, "about 11.15 p.m.," "with pains and cramps in the stomach." The next morning, Mr. Chandler was sent for, who found the patient "insensible and comatose." She died at 1 p.m. on Monday, or rather less than fourteen hours from the first symptoms. A post-mortem examination was made by Mr. Chandler, who found "brain, chest, lungs, and heart healthy;" but "the anterior part of the stomach was perforated, and food had passed through the perforation." There were patches of inflammation, the size of shillings and half-crowns, close to the perforation. "The other end of the stomach and intestines was healthy."

Now, this was not a wonderful case. It was clearly a case of chronic ulcer of the stomach, with perforation; a malady which has always attracted the attention even of the most careless student, through its tragical and appalling phenomena. It is a disease which is singularly common in young women and female children. Our own columns contained, a few weeks since, a report of an exactly parallel case, which occurred in the person of a poor girl at the "Home School for Girls," in Mayfair. It is a malady, of which the symptoms are unmistakable, and it is just as fatal as a stab, or a pistol-shot through the stomach. Reports of these cases are common, and all alike. A young woman, after suffering some time from dyspepsia, is seized with a sudden, agonizing attack of pain, followed by from two to twenty-four or thirty hours of unspeakable suffering, by collapse, probably (but not always) by unconsciousness, and death. The bystanders about such a case are apt to whisper poison, or cholera; but the Medical Practitioner sees the truth at a glance, and a post-mortem examination confirms his diagnosis. The ulcer is seldom single: with one that has eaten through the stomach, there may be signs of another that has healed, and other patches, as in the narrative before us, that are falling into disease.

But the vulgar, as we well know, are not satisfied with the plain truth; they crave for "sensation"—for some tale of poison or murder to satiate their appetite for the horrible. It is a curious circumstance, which the experienced Practitioner notes every day of his life, that people are never satisfied with a mere pathological history of illness; but that some "accident" is always inquired after. If a scrofulous child has a diseased hip-joint, there is always a story of a careless nurse who let the child fall. If a woman has cancer, there is always a mythical account of a blow on the breast. The "Medical man" is always pestered to find a *cause* for every illness; for the plain truth, and the natural history of disease, are not exciting enough. In the case of the girl, Elizabeth Anne Abdallah, the arsenical green was made to do the "sensation" work.

It is stated in the newspapers above quoted, that the mother of the deceased girl swore that her daughter had some artificial grapes given her by a "little girl," named Elizabeth Hall, on Sunday evening, "at about nine o'clock," and that she sucked some green stuff off one of the grapes soon after they were given to her.

We confess, frankly, that we have very grievous doubts as to this. We make little doubt that the poor mother, distressed at her daughter's sudden and terrible death, cast about her desperately, as all distressed persons do, for something on which to lay the blame. The grapes occurred to her, and the story of the grapes thus gained currency.

We hear nothing of the effects of the poison on the mouth or throat, and, therefore, are left to believe that a drug which would inflame the stomach did not cause inflammation of the lips and tongue by which it was sucked, or of the throat by which it was swallowed. There is no account of gradually increasing uneasiness, burning pain, retching, or vomiting. The "poison" lay dormant two hours, and then burst forth like a pistol-shot, at 11.15 p.m. These, we say, were not symptoms of poisoning, though they are of perforation.

Is it credible that any mother could see a girl suck poison at nine o'clock, and be taken violently ill at eleven, and yet not send for Medical aid or antidotes till seven o'clock the next morning? The thing is inconceivable. We cannot conceive the mother to have been so negligent; and we put down the grape-sucking as a phantasm of the imagination.

The reported evidence of Mr. Chandler, the Surgeon, does not add one tittle to the presumption that death occurred from poisoning. He said that the girl was "comatose;" but, as the brain was healthy, the word "comatose" probably signified the insensibility of collapse and the approach of death.

"It was his opinion that the perforation had taken place within a short time before death; there were patches of inflammation the size of shillings and half-crowns close to the perforation. The other end of the stomach and intestines was healthy, as were also the kidneys. The patches of inflammation of the mucous membrane were due to some foreign irritant. They might have been produced by arsenical poison, though perforation from arsenic very seldom took place."

Such is the report of Mr. Chandler's evidence in the *Times*, although we cannot conceive that it does him justice It makes him find a chronically-ulcerated stomach in a girl, and yet invoke the aid of poison to account for a natural and not uncommon disease, which, as he confesses, arsenic "very seldom" causes. We should like to know the exact meaning of "very seldom,"—but let that pass.

To one who reads the account, chronic ulcer and marks of old disease suggest themselves; not the vivid traces of a poison which could kill in fourteen hours.

The notion of poisoning, however, had been started, and the Coroner very properly sought the assistance of an analytical

chemist, and Dr. Letheby was appealed to. His evidence (as reported in the *Times*) is as follows:—

"On Friday, October 3, I received—1, a bottle containing the stomach of a child and a piece of intestine; 2, a bottle containing the heart of a child and a piece of liver with the gall bladder attached; 3, a bottle containing the gall bladder of a child; 4, a bottle containing a piece of lung and about half an ounce of blood; 5, a box containing green and blue and pinkish artificial grapes. All these were carefully examined with the following results:—1. The stomach was cut open and its contents were gone. The mucous coat was stained in several places of a dark reddish brown colour, as if from irritation. At the larger end of the stomach there was a chronic ulcer about one-third of an inch in diameter, which had pierced entirely through the walls of the stomach. The tissues of the stomach were examined for poison, but none was found."

This first part of Dr. Letheby's evidence surely sets the question of poison at rest. It shows a *chronic* ulcer; and it shows that neither ulcer nor dark reddish patches contained arsenic, as must have been the case if they had been produced by a dose of the poison taken fourteen hours before death.

"The piece of intestine (continues Dr. Letheby's report) was about six inches in length. It was not opened, but its contents were secured by ligatures at each end. It contained about a table-spoonful of thick matter, highly tinged with bile. Search was made for solid particles of glass, &c., and the whole was examined for poison, but, as in the last case, without positive result. The contents of the second bottle were then examined. The heart was cut open, and appeared to be free from disease. The gall bladder contained a large quantity of bile; this, with the piece of liver to which it was attached, was examined for poison, and distinct traces of arsenic were discovered. The contents of the third and fourth bottles were also tested. No poison was found."

So far everything is sober and business-like. We confess that we should like to know what is meant by a "distinct trace." Is it a hundredth, or thousandth, or tenth-of-a-thousandth of a grain? We should like to know, also, whether the poor girl was sick or relaxed in the bowels; so that there may be some intelligible explanation of the absence of the poison from the stomach and bowels within fourteen hours, though a "distinct trace" was found in the liver. However, so far we have been dealing with fact: now for an appeal to the imagination:

"Lastly (continues Dr. Letheby), the colouring matter of the artificial grapes and leaves was submitted to analysis. The blue and pink grapes were free from poison, but the green ones were covered with arsenical green (arsenite of copper). Ten of the grapes yielded three grains of the poisonous pigment; and I hand to the coroner a specimen of the metallic arsenic obtained from a single grape. The artificial leaves are also stained with arsenical green. Each leaf contains about a grain and a-half of the poisonous figment; and I hand in a specimen of the metallic arsenic obtained from a single leaf. The quantity of poison in one leaf is, perhaps, sufficient to kill a child."

This statement about the leaves is (supposing the report correct) irrelevant in itself, and calculated to inflame the imagination of the jury, and to prepare them for what follows:

"The result of this examination is (continues Dr. Letheby) that, *although no trace of arsenic has been discovered in the tissues of the stomach and intestines*, yet from the presence of a *distinct trace* in the bile and liver it is evident that arsenic had been taken during life and absorbed into the system. Mr. Chandler, who attended the child, has given me an account of the symptoms, and they correspond exactly with what I have once seen as the narcotic effects of a small dose of arsenic. The giving way of the ulcer in the stomach might have been due to the irritation of the poison during life, or it might have been a post-mortem result; but I do not think, from the symptoms described to me, that it was the actual cause of the child's death. I attribute this rather to the poison."

Courteous reader! we are copying from the *Times*. It is the *Times* which makes Dr. Letheby state that the chronic ulcer and perforation were not the causes of the child's death; that what Dr. Letheby "once saw" as the narcotic effect of a small dose of arsenic, was more likely to be the cause of death, than what all the world sees frequently as the result of a hole in the stomach! Does Dr. Letheby intend to say that perforation of the stomach is not adequate to cause death? Or that the girl might have lived with the perforation, had she not died of the poison?

"In the month of November, 1840 (says Dr. Letheby), I was consulted in a case very similar to this, where a child died from the effects of arsenical green on the paper of the cupboard where its toys were kept. Two children were made ill by it, and one of them died. The case was the subject of an inquest. On that occasion I ascertained that the paper contained nearly thirteen grains of arsenical green in a piece of six inches square—a quantity sufficient to kill at least two persons."

We confess that we should like further evidence about the cause of these two children's deaths. But let that pass. The result of the present case was, that the jury found "That the deceased, Elizabeth Anne Abdallah, had been poisoned by sucking arsenite of copper from artificial grapes."

We venture to say that a more absurd and unfounded verdict was never found by a jury. So far as the poor girl, Abdallah, is concerned, she is gone to her long home, and we hope now rests in peace; but it may be worth while, for the safety of the public, just to see what sort of a precedent her case is likely to be, when we find that a Physician and Analytical Chemist, whom we should willingly have trusted for judgment and sobriety, is reported to have been so fascinated by the search for poison, as to have ignored so common and mortal a disease as perforation of the stomach. Of course we are no apologists for arsenical paper. The manufacture and use of paper or ornaments tinged with arsenic is a public disgrace, and it is not creditable to the London Vestries and Medical Officers of Health that it has not been abolished. If this poor girl Abdallah, too, did really suck the grape, and *if it caused vomiting* (of which we have heard nothing), the mechanical strain of the vomiting *might* have ruptured the ulcer. But a small dose of poison which did not cause vomiting could have had no effect in making the ulcer burst. The symptoms described are those of perforation alone, not of poison. In fact, the whole history, so far as the alleged poisoning is concerned, is of the haziest and most mythical sort.

The very quantities are dealt with vaguely in Dr. Letheby's alleged report. It is stated that thirteen grains will kill two persons, and that *one grain and a-half* of the pigment is, *perhaps*, enough to kill a child. But, then, the grape contained only *three-tenths* of a grain, a quantity insufficient to kill in fourteen hours.

Let us suppose that Elizabeth Hale, who gave the alleged grape, instead of being a friend and playmate, had been a reputed enemy of the deceased—a thief, a hag, a strumpet, and friendless; that, instead of a gift and a plaything, the grape had been alleged to have been chosen as a subtle and intentional vehicle of deadly poison? Suppose some person who might profit by the girl's death had been alleged to have given the grape? Why, most assuredly, the imaginations of the deceased girl's parents, of the bystanders, of the coroner and jury, aided by such Medical and chemical evidence as is reported and allowed to go uncontradicted, might have led them to find a verdict of wilful murder against an innocent person, as readily as they found the unwarrantable verdict which we have quoted.

Here is a possible case. Two school girls quarrel. One is seized with "symptoms of poisoning." She dies after a short period of "coma," resembling "the narcotic effects of arsenic." Her schoolmate had a bunch of arsenically-coloured grapes. One is missing, or found as if sucked. The deceased girl's stomach is found perforated by a chronic ulcer; but yet two Medical men swear that she died of poisoning by arsenic,

"distinct traces" of which are sworn to have been found in the liver. If Elizabeth Abdallah was believed to have been poisoned, then clearly our supposed girl might be so, too;—and her playmate might be hanged.

Well may we say, in reading the romantic toxicology of the present day, *Libera me a sanguine!* Humiliating is it to find Medical men reported as giving evidence of a sort which might, and must, if persisted in, some day cause the ruin or death of some innocent person. With the deepest mortification we can only say how glad we are that there exists that much-abused class of men—the barristers—who, even if sometimes drawn by professional zeal "to make the worse appear the better cause," yet are trained, for the sake of justice, to distinguish facts supported by reasonable evidence, from the fictions which are engendered by heated imaginations.

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HERE is an advertisement, cut from the *Daily Telegraph*:—

DR. SCOTT Attends and Corresponds Confidentially in MIDWIFERY, Pregnancy, and other Private Cases. He has had 30 years' practice.—17, Adam-street, Strand, London. Ladies' Confidant or Specialist, 13 stamps each by post.

This advertisement has, to our eyes, a very indiscreet look, the more particularly as it is evidently addressed to persons whose object it is to conceal their pregnancy. The name of "Scott" is common, and honourable, and is borne by no fewer than seven gentlemen, who appear in the "Medical Directory" for 1862, including Dr. Henry Scott, of 11, Upper Woburn-place; Dr. Henry Thomas Scott, of 7, Bedford-place; Mr. John Scott, of Harley-street; Dr. David Scott; Dr. Geddes Mackenzie Scott; and two Surgeons, each named Robert Scott. We can assure our readers, professional and lay, that the advertisement above quoted does not proceed from any one of the seven. Whatever may be the qualifications or the history of the Dr. Scott who advertises, we will guarantee that not one of the seven desires to share them. He may enjoy the reputation or notoriety which he seeks, and the privilege of attending such pregnant women as would be likely to respond to such an advertisement, without fear of a rival claimant from any qualified practitioner of the name of Scott.

It is a pity that he does not return the compliment, and, for his own sake, in his own private affairs, sufficiently distinguish himself from the seven; for an unpleasant letter from an attorney was received, the other evening, by Dr. Henry Scott, which was evidently intended for his advertising namesake.

It seems to be lawful for any man to take any name, be it Norfolk Howard, or Talbot Plantagenet, or Scott. While we confess that there is some annoyance in being mistaken for a man who advertises that he makes himself useful to pregnant women, Dr. Henry Scott may console himself by knowing that he need never fear being confounded by the Profession with the occupant of Westhill, and 17, Adam-street.

ST. THOMAS'S HOSPITAL.

(*From a Correspondent.*)

FOR the origin of St. Thomas's Hospital, it is neeessary to carry our investigations to a very remote period. It appears that, prior to the Norman Conquest, there existed on the site which the Hospital subsequently occupied a convent dedicated to Saint Mary Ovarie, in connexion with a similar establishment in Bermondsey. In the time of Archbishop Lanfranc, the former was enlarged and dedicated to St. Saviour, and adapted for the reception of monks who were removed from Nivernois, in France. In 1213, an "Almonry" was attached to this establishment, for the reception of indigent children and necessitous persons, and, subsequently, the charity was extended, dedicated to St. Thomas of Canterbury, and in part appropriated as a hostelry for the accommodation of pilgrims on their way to the shrine of the saint. As thus constituted, St. Thomas's Hospital continued, with various modifications, till the time of Henry VIII., when the monastery was suppressed, and its property appropriated by the Government. That monarch had intended to devote the funds of St. Thomas's, and other similar religious houses in the Metropolis, to charitable purposes, but he died without carrying his intentions into effect. Edward VI., however, determined to fulfil the wishes of his father, and in June, 1553, he incorporated by charter the royal Hospitals of St. Bartholomew, Christ, Bridewell, and St. Thomas. The property of St. Thomas's Hospital was transferred to the Corporation of the City, on payment of a sum of money; and the requisite funds having been obtained from public and private sources, the buildings were repaired and rendered fit for the reception of sick persons, the number then accommodated being, apparently, 260. In 1693, the Hospital having fallen into decay, in consequence of the losses sustained by the charity in the fire of London, and in various fires which had occurred in Southwark, it was determined to rebuild it. The City Companies and merchants subscribed liberally for the purpose, and nearly the whole of the old conventual buildings were removed, and replaced by others better fitted for the purpose to which the establishment was then applied. In 1707, three new wards, including the old front to High-street, were erected at the sole expense of Guy, the founder of Guy's Hospital. At this time the accommodation of the Hospital appears to have been raised to the reception of 340 patients. In 1718, the block of buildings at the south-east angle of the ground, recently appropriated to the male Medical patients, was erected, by which the establishment was rendered capable of accommodating about 100 more patients. From this time the Hospital underwent little change, till the erection of the new north and south wings within the last few years. It consisted of a series of brick buildings, three stories high, surrounding small paved court-yards. The buildings included houses for the treasurer and other officers, the hall and chapel, and the wards. The upper stories were made to project, and were supported by columns, so that open corridors or cloisters were formed around the yards, which communicated by wide passages in the middle. The Hospital at the latter part of the last century contained about 450 patients, and a larger number was at one time received; but an infectious disease having broken out, owing to the wards being overcrowded, in 1783 the number of patients was reduced, and not afterwards increased. In 1833 the new north wing was built, and in 1841 the south wing; both of them being in part erected with the stone of the old London-bridge. This alteration did not, however, very materially extend the accommodation of the Hospital, for the wards in the old front were removed at the same time, and the number of patients in the other parts of the building was reduced. The north wing was appropriated to the reception of the female Medical cases. It contained three wards, each occupying an entire floor, about 110 feet long, 28 feet wide, and 16 high, and accommodating 30 patients. The space between each bed varied from 3 to 4 feet or more; that between the ends of the beds was 16 feet; and the cubic space allowed to each patient exceeded 1600 feet. Having devoted attention specially to Hospital construction, and visited a large proportion of the best Hospitals in this country and on the Continent, we much doubt whether wards superior, or even equal, to them exist in any other institution. Recently, the beds provided have amounted to 500; but the average number of patients was usually only about 450. In 1861 there were 445 patients constantly resident, of whom about 170 were Medical, and 275 Surgical. The out-patients were—Medical, about 4644; Surgical, 7353; midwifery and diseases of women and children, 2875; diseases of the skin, for eight months, 440.

From an early period the staff of the Hospital consisted of three Physicians and three Surgeons; and there was also an Assistant-Physician, who was engaged in seeing out-patients

twice a-week. In 1835, an Assistant-Surgeon, John Flint South, the present senior Surgeon, was appointed, and Surgical out-patients were admitted. In 1843, two additional Assistant-Physicians and Assistant-Surgeons were elected, and the out-patients were seen daily. The staff at present consists of a consulting Surgeon, six Physicians and six Surgeons, with an Assistant-Physician and Assistant-Surgeon, the latter of whom attend to out-patients, and an obstetric Physician.

The old Hospital is now rapidly in process of demolition, having passed into the possession of the Charing-cross and South Eastern Railway Company; but we are glad to find that, while the building was still occupied, photographs of the exterior and of some of the wards, were taken; so that those who feel an interest in the place, founded upon their connexion with it as pupils or otherwise, may secure a reminiscence of it. To those who there received their education, St. Thomas's must ever be a source of affectionate remembrance; and to the Profession at large, for the number of distinguished Medical men who practised or taught within its walls, it must retain a deep interest. Sir Hans Sloane, Dr. Mead, Akenside the poet, Dr. Wells, Dr. George Fordyce, and Sir Gilbert Blane, were Physicians to the Hospital. Else, Cheselden, Cline, Travers, and Tyrrell, were Surgeons and Teachers in the School. Sir Astley Cooper was a Hospital pupil of Mr. Cline, and lectured at St. Thomas's; and we may still refer with just pride to Joseph Henry Green, the contemporary of several of those just mentioned and the colleague of the last, who still lives to enjoy the respect and esteem of Medical men practising in all parts of the world, who remember with delight his eloquence as a Lecturer and ability as a practical Surgeon.

We are not able to state precisely at what time Medical instruction was first given at St. Thomas's. Cheselden and Else delivered occasional lectures on Anatomy and Surgery at the Hospital; and, subsequently, Dr. George Fordyce, while Physician to the institution, gave lectures on Materia Medica, Chemistry, and Medicine at his own house; but Mr. Cline was the first person who delivered a systematic course of lectures. He commenced to lecture on Anatomy and Surgery about the end of the last century, and continued to do so till 1814. In the latter part of his career he associated with him his pupil, Sir Astley Cooper; and, on his retirement, the younger Cline took the place of his father, and continued to lecture with Sir Astley till 1822, in which year he died. Joseph Henry Green then succeeded as the colleague of Sir Astley, and the two continued to lecture conjointly till the separation of the Schools in 1825; the Medical lectures during this period being all delivered at Guy's Hospital. While Sir Astley Cooper and Mr. Cline were lecturing on Surgery, Mr. Travers, who was associated with Mr. Saunders in the foundation of the Ophthalmic Hospital in Moorfields, delivered lectures on Diseases of the Eye at St. Thomas's. In 1825, the separation of the Schools of the two Borough Hospitals took place. Sir Astley Cooper commenced lecturing on Anatomy and Surgery at Guy's Hospital, Mr. Green continuing his lectures at St. Thomas's; and lectures were delivered at the latter place on Medicine by Dr. Williams and Dr. Elliotson; on Materia Medica by Dr. Roots; and on Midwifery by Sir Charles Locock.

The injury inflicted by the separation of the Schools must have been great to both; and that no means of reconciling the conflicting interests could be found must ever be a source of regret. The St. Thomas's School suffered still more from the appointment of two of its most distinguished teachers to professorships in other institutions, which took place shortly after, Dr. Elliotson being elected Professor of Medicine at University College, and Mr. Green at King's College. In 1842, the Webb-street School, which, under the able management of Mr. Grainger, had been eminently successful, was discontinued, and Mr. Grainger undertook the post of Lecturer on Physiology and Anatomy at St. Thomas's, and the School was altogether remodelled. From this time it was gradually regaining its former position and reputation; but, unfortunately, the long contest in which the governors have been engaged with the railway company, and the removal of the establishment from London-bridge, in which it has resulted, have materially interfered with its prosperity. Were the governors, however, to determine to select for the site of the new building the situation in which the Hospital and Medical School are now located, there can be little doubt that St. Thomas's would soon recover its former position and reputation, both as a great public charity and a distinguished Medical School. We regret, however, to hear that the authorities still contemplate moving the establishment into the country. The Medical staff are, we believe, all but unanimous in regarding the situation of the present temporary Hospital as quite as distant from the central parts of the Metropolis as is at all compatible with its usefulness to the suffering poor, for whose advantage the charity was founded, and for the scarcely less important public object of maintaining an efficient Medical School. We have also rarely heard any other sentiment expressed by independent members of the Profession, and, we may add, of the public, than that the removal of the Hospital into the country would materially lessen its value to the poor, and almost necessarily preclude its continuance as a large and well-appointed Medical School.

Whether the new Hospital be erected at the Surrey Gardens or elsewhere, the present establishment must be regarded as only temporary; but we, nevertheless, consider it to afford to the student facilities for obtaining a sound theoretical and practical knowledge of the Profession, which will bear a favourable comparison with other Metropolitan Schools.

The Hospital possesses beds for the accommodation of about 250 patients, which are appropriated to Medical and Surgical cases and accidents. There is a large and increasing attendance of out-patients, both Medical and Surgical, and special departments for eye cases, diseases of the skin, and for midwifery and the diseases of women and children.

The buildings appropriated to the Medical School are also well adapted for the purpose. Two theatres are provided, each capable of accommodating upwards of fifty pupils. The dissecting-room is large, airy, and well lighted; and there are separate rooms for the lecturer on practical anatomy and histology, and for the demonstrator of morbid anatomy.

The chemical laboratory is large, and fitted with every requisite appliance; and the lecturer has a separate room for his museum, apparatus, etc. A library and a reading-room are provided for the students.

The museum of the Hospital possesses especial interest, as being the collection which originally belonged to the united Schools, and as, consequently, containing many preparations, which are not only intrinsically but historically interesting. On the separation of the Schools the museum was purchased by the Governors of St. Thomas's, and it has since been greatly enlarged in all its departments. It contains preparations illustrative of the published works, papers, and lectures of Mr. Cline, Sir Astley Cooper, and Mr. Travers; those referred to in Sir Astley Cooper's work on Hernia, including preparations of mesocolic, mesenteric, ischiatic, thyroid, and phrenic hernia; preparations illustrating the work on the Testis; a large series of specimens of diseased bone; and cases showing the results of operations for aneurism, and especially the case in which Sir Astley tied the aorta. The specimens referred to in Mr. Travers' paper on the ligature of arteries in the *Medico-Chirurgical Transactions*, etc., are also contained in the museum; and there are several interesting specimens of aneurism described by Dr. Wells, of malformation of the heart published by Dr. Farre, and of rupture and aneurism and valvular disease of the heart, mentioned by Dr. Elliotson. The more recent specimens are numerous, and possess especial interest, as being many of them described in papers in the *Medico-Chirurgical and Pathological Trans-*

actions. The contents of the museum have recently been made more readily accessible, by the publication of descriptive catalogues.

The Institution also possesses a large and well-arranged museum of Materia Medica, to which the pupils have access, under the sanction of the Lecturer on Materia Medica and Therapeutics.

In referring to the advantages offered to students at St. Thomas's Hospital, mention should be made, not only that various prizes are given to those who distinguish themselves in the examinations for each year, as may be seen in the prospectus, but that the offices of Clinical Clerk, Dresser, and House-Surgeon, Resident Accoucheur, and Hospital Registrar, are thrown open for competition, and that the Institution was the first of the large Hospitals to adopt this system of filling up these offices, and that, too, at considerable pecuniary cost.

The pupils, at the commencement of their studies, also receive prizes for their proficiency in classics and mathematics, physics and natural history, and modern languages and modern history. A scholarship has been endowed by Mr. Tite in connexion with the Hospital, and medals and other prizes are given for special attainments. We have always thought that the desirableness of offering rewards of this kind may be open to doubt; but we think there can be little hesitation in approving of the election of the gentlemen who fill the Hospital offices according to their knowledge of all the branches of Medical education, as ascertained by examination. It would be invidious to refer to the qualifications of the Medical and Surgical officers for giving clinical instruction, or of the lecturers for illustrating the subjects which they have undertaken to teach; but we think we have shown that the arrangements of the Medical School are still such as afford the pupil every facility for the study of the Profession; and we cannot but regard the neighbourhood of the present establishment, in an open suburb, as affording a more desirable residence for the pupils than the densely-crowded situation from which the Hospital has been removed.

THE WEEK.

LICENSES FOR LONDON COW-HOUSES.

At the present time, courts of Petty Session are holden in various parts of London, for the purpose of licensing cow-houses. The Sanitary Committee of the Vestry of St. George, Hanover-square, laid before the magistrates the following conditions, on which alone such licenses should be granted: these were signed by every applicant. Considering that the number of the cows is now under control, and the removal of refuse likewise, there ought to be no further complaints, if the officers of the vestries do their duty.

"1st.—With regard to new applications for buildings not heretofore used for the purpose, they recommend the Justices (by whom the license is granted)—That no shed containing two rows of cows shall be less than 25 ft. in width. That no cowshed shall have any dwellings or workshops over it, but that it shall be open to the roof, which shall be covered with tiles, loosely set. That the stalls for two cows shall not be less than 7 ft. 4 in. in width, and 8 ft. in depth; that each shall have a raised platform, with a gutter or channel properly sloped, on each side and behind. That the shed shall be drained by pipe drains, with inlets not more than 15 ft. apart in the principal gutter, and properly trapped. That the mangers shall be of stone, and capable of being flushed out. That sufficient light be provided. That ventilation be provided by louvre openings in the roof, and other means to the satisfaction of the vestry. That the water supply be abundant. That the pavement of the cowsheds and yards be of stone or hard brick, with proper slopes, and be kept in good repair. 2nd.—With regard to all cowsheds, they recommend that the following undertaking be agreed to by each applicant—That the said sheds and yards shall be properly limewashed, at least four times a year, within 14 days of the four usual quarter days. That the grains shall be kept in pits, with the bottom paved with flagstones, and drained. That the dung shall be kept in an open yard, in a receptacle not sunken, but with a bottom raised above the surface of the ground, and enclosed by a dwarf wall, from 2 to 2½ feet high; the bottom to be paved with flags, with a fall to one end, where there shall be a trapped drain. That where there is no space in the yard, the dung may be kept in a similar receptacle within the shed; but that, in either case, a cover shall be provided if required by the vestry. That the dung shall be removed daily before 9 a.m.; that it shall be removed entirely, and the receptacle be washed out with water, to which the carbolic acid, or some other disinfectant, shall be added if required by the vestry. That the yards and sheds shall be similarly washed twice every day at the least. That no greengrocer, fishmonger, poulterer, or other tradesmen, be allowed to bring offal or rubbish, and deposit it in the receptacles for dung attached to any cowshed. That the number of cows, in any given shed, shall not exceed that which is fixed by the officers of the vestry, subject to the decision of a magistrate."

ANATOMY AT THE GREAT EXHIBITION.

The English anatomist has, like many other classes of the community, had a grievance supplied to him by the International Exhibition Commissioners; for these gentlemen decided, both this year and in 1851, that the results of the anatomist's labours, though they may easily be such as to interest the scientific, and delight the artistic world, without disgusting either, shall, if he be a British anatomist, take a place nowhere but amongst educational works and appliances, and be relegated, consequently, to the remote regions of the Central Tower, to keep company there, in exile, up several pairs of stairs, with globes and drawing models. It is in such surroundings that we find the illustrations of Physiology by Mr. Turner, of Edinburgh, 5487, and the series of Anatomical and Zoological preparations, 5609, by Mr. Robertson, of the Oxford University Museum. The foreigners are all, however, treated as "the most favoured nation;" and, imitating the Royal Commissioners, we will give them the first place in our notice. Of all the Anatomical and Physiological objects exhibited by foreigners, Professor Hyrtl's, in "The Illustrative Exhibition of the Course, Progress, and State of the Present Public Instruction in Austria," are by far the best. Their material is the most valuable—their execution and artistic finish the most perfect. The Official Synopsis, by Mr. Hunt, makes (page 74) honourable mention of Dr. Hyrtl's preparations; and though his name does not appear in the Official Catalogue, still a reference from the number 1188 in this dry dictionary to the same number in the Austrian catalogue, will lead the reader to above two closely-printed pages by the Professor himself, in explanation of his own handiwork. Now, Hyrtl's letterpress is as great a treat to every one possessed of the sense of humour as his anatomical preparations are to the true anatomist; and persons who lay claim to either, or, as many will, to both of these characters, will possess themselves, we make no doubt, forthwith, of the Austrian catalogue, and peruse and re-peruse Professor Hyrtl's two pages for themselves. The following short specimen of his matter and manner we may give in these columns—No. 14, p. 93:—"The American Phrynosoma mourns in silence over the American war, or is, perhaps, ashamed of the strange ornament on his head, and the meaning of it in common life; we leave the poor toad-like sufferer to his unpleasant reflections on married life, and go on with our explanation to the following case." Our readers will, no doubt, prefer following the Professor for themselves to reading descriptions by us, and we will, therefore, only say that the physiologist should diligently study the injections, and pay some little attention to the series in illustration of the auditory apparatus; that the anthropotomist will admire the injected and corroded dissections of bloodvessels, but that he need not envy them, for that Dr. Barclay, of Leicester, will shortly supply him

with a translation of the Professor's work on the art of making preparations; and that, lastly, the zoologist will do homage to his case of ganoid fishes, and gaze with something like awe upon the *Chlamydophorus truncatus*, which is supposed to have disappeared, together with a town in Chili, Mendoza by name, from off this planet of ours, only as lately as last year. A number of Professor Hyrtl's anatomical writings lie upon the table with his cases, and we rejoice, for our own sakes, to see that a translation of his "Handbuch der Topographischen Anatomie," is promised us by the very competent Professor Perceval Wright, of Dublin. We would fain hope that, from this increased circulation of his works, benefit may accrue to Professor Hyrtl, as well as to the rest of the world. The cruel losses which befel him and his collections in 1848, in the revolutionary and military outrages of that year of mob rule and of court excesses, are well known; and it is painful in the extreme to us to find such a man saying, as he does in the Preface of his work, shortly to be published by the Sydenham Society, that he writes for bread; or to read him, as in the Austrian catalogue, quoting, with melancholy humour, "*Non ebur neque aureum*," from our old friend Horace. Mr. Turner's plates, 5487, Central Tower, and Mr. Robertson's case, 5609, *ibid.*, have both won medals from the Commissioners, and both deserve a short notice from us. Mr. Turner's plates are thoroughly scientific, but, like Milne Edwards' Manual of Zoology, they are constrained, by the very object for which they are intended, to omit the figuring and letterpress of the reproductive organs. All the other systems of the human body, bones, muscles, nerves, viscera, have their naked-eye and their microscopic anatomy given in a manner worthy of Mr. Turner's reputation, and of his office in the University of Edinburgh. His publishers, Messrs. W. and A. K. Johnston, have put his work before the public in a manner creditable to themselves. Of Mr. Robertson's "Zoological Series, with Dissections in Illustration," the object seems to have been twofold,—partly scientific, partly educational. The first object would have been better answered had his case been placed in a more easily accessible and more frequented part of the building. It could have well borne comparison with the similar productions of the more favoured foreigners. Out of forty-six preparations, twelve are devoted to the vertebrate, and thirty-four to the invertebrate kingdom,—a more just proportion than is sometimes observed in biological works. His catalogue, a Hunterian in miniature, will show how much anatomy and physiology he has contrived to illustrate by this series. Looked at from the educational point of view, Mr. Robertson's case seems to be intended to show within what compass it is possible to compress all the preparations necessary for the elucidation and illustration of the ordinary Hand-books of Zoology and Zoological Anatomy. We hope to see the day when a series such as this will have come to be regarded as a necessary part of the educational apparatus of every school of any pretensions. We do not know that any thing of the kind has been attempted before, on anything like the same scale; and we are of opinion that it will be many years before the model Mr. Robertson's case has furnished will be superseded by anything better.

THE USE OF NICOTINE IN TETANUS AND CASES OF POISONING BY STRYCHNIA.

Experimental Medicine is under such acknowledged obligations to the Rev. Professor Haughton, of Trinity College, Dublin, that it is unnecessary for us to say one word in commendation of his accuracy and sagacity as an observer. His researches on the urine have thrown more light on the subject of its physiological chemistry, than those of almost any other British physiologist. He appears now to be establishing a fresh claim on the gratitude of the Profession, by his experiments on the use of nicotine in idiopathic and traumatic tetanus, and in cases of poisoning by strychnia. In November, 1856, Professor Haughton laid before the Royal Irish Academy the results of his experiments, as to the physiological action of nicotine and strychnine on frogs. These observations showed that, at least in the cold-blooded vertebrata, the two alkaloids exert effects counteractive of each other. The hint thus thrown out was seized in America. In 1858, a letter appeared in this Journal, from Dr. Thomas O'Reilly, of St. Louis, Missouri, which related the successful treatment of a case of poisoning by strychnine, in which six grains of the alkaloid had been swallowed, by the administration of an infusion of dry tobacco leaves. Dr. Haughton has now published, in the form of a pamphlet, a paper which originally appeared in the *Dublin Quarterly Journal of Medical Science* for August of this year, containing an account of two cases of traumatic tetanus, one case of the idiopathic form of the disease, and one of poisoning by strychnia, all of which were treated by nicotine or tobacco. The first case related is one of traumatic tetanus, in which the nature of the injury, a severe and extensive burn, precluded all hope of recovery. The man was evidently dying when the nicotine was given, but its physiological effects were well-marked. It produced an immediate relaxation of the tetanic spasm of the muscles of expression, of respiration, and deglutition; a cessation of delirium, and a feeling of relief from agonising pain, and a lowering of the pulse from 130 to 88 per minute. The nicotine was given in one-drop doses. The second case was one of idiopathic, subacute tetanus, produced by exposure to cold. In this instance, the patient recovered, after having taken, during eleven days, 44 drops, or 26·4 grains of nicotine. The medicine was given in doses of half and three-quarters of a drop, combined with small quantities of sherry and brandy. The marked effects of the alkaloid were immediate relaxation of the muscles of the abdomen, back, and diaphragm; a cessation of delirium; a slight tendency to increased frequency of the pulse to the extent of ten beats per minute; profuse sweating, the perspiration exhaling an intolerable odour of snuff, not of tobacco; a tendency to deep sleep. The nicotine failed to control quickly the adductor muscles, supplied by the obturator nerve—even when the hamstring muscles gave way, the adductors refused. The third case was that of a boy, who had taken a quantity of strychnine, estimated at four grains, and who was brought to the Meath Hospital, and there treated with tobacco by Dr. P. C. Smyly. Various emetics had been previously administered without effect. The following is Dr. Smyly's graphic account: "When I arrived he was lying on his back, his head thrown back, chest raised and fixed, limbs rigid, hands clenched, eyelids spasmodically closed, and corneæ turned upwards. The priest told me that, during the administration of the last rites of the church, the boy was seized with a sudden spasm, which threw a tin tray with some violence into the air; the tray was resting on his abdomen. I had an infusion of tobacco made, by pouring a pint of boiling water on about an ounce of cut Cavendish, heated over the fire, and strained; cold water was then added until the liquid was tepid. I made him drink two-thirds of this. Furious vomiting followed instantly. He swallowed the rest with same result. The stomach appeared to be completely empty. He lay quietly on his back for about five minutes, when he was seized with a violent spasm and quivering of the whole body, then complete opisthotonos and clenching of the hands. About the middle he gave two short screams, as if he was in intense pain. I gave him another pint of the infusion in three doses, all followed immediately by vomiting. Another pint was prepared from the same ounce of tobacco; about a teacupful of this was retained in the stomach for about five minutes; a second was retained somewhat longer. Profuse sweating now commenced, and he slept for a short time. I left him for about half an hour. On my return I found

him lying quietly on his back; all his muscles, except those of his legs, relaxed; breathing less rapid; pulse slower, soft, and rather weak. I turned him on his side, which he was afraid to do himself. He drew up his knees, put his hands under his head, and went to sleep. The night nurse says he only turned once during the whole night to ask for a drink"! The boy made a rapid recovery. The last muscles to undergo relaxation were the hamstring: on the following morning they were still hard and stiff. In this case tobacco produced vomiting when all other means failed, and so saved the patient from the effects of any unabsorbed strychnia, and clearly and successfully counteracted the effects of the poison which had been taken up. Professor Haughton is inclined to suspect that the obstinacy of the hamstring and adductor muscles, in this and the preceding case, was owing to a limitation of the controlling power of the nicotine to a certain tract of the spinal cord. The fourth case was one of recovery from traumatic tetanus occurring after compound fracture of the radius. The nicotine was given in doses of 1, 2, and 2½ drops, and was also administered in enemata. The whole quantity received by mouth and rectum, during four days of treatment, was 54 drops, or 32½ grains. The physiological effects of the nicotine appeared to be the same by whichever channel it was administered, and coincided with those previously related. Profuse sweating, with the characteristic smell of snuff, was a prominent symptom. Professor Haughton closes his pamphlet with a case of idiopathic tetanus in the horse, which, although it terminated fatally, demonstrated the physiological action of the alkaloid when introduced by subcutaneous injection. The success which has attended the use of the tobacco alkaloid in these cases is more than sufficient to warrant its tentative employment in every case of true tetanus, from whatever cause produced.

UNIVERSITY OF ST. ANDREWS.

MEDICAL EXAMINATION PAPERS.—September, 1862.

First Examination.

FIRST PART.

To be translated into English:—"Sanus homo, qui et bene valet, et suae spontis est, nullis obligare se legibus debet; ac neque medico, neque iatralipta egere. Hunc oportet varium habere vitae genus: modo ruri esse, modo in urbe, saepiusque in agro; navigare, venari, quiescere interdum, sed frequentius se exercere: siquidem ignavia corpus hebetat, labor firmat; illa maturam senectutem, hic longam adolescentiam reddit. Prodest etiam interdum balneo, interdum aquis frigidis uti; modo ungi, modo id ipsum negligere; nullum cibi genus fugere, quo populus utatur; interdum in convictu esse, interdum ab eo se retrahere; modo plus justo, modo non amplius assumere; bis die potius, quam semel cibum capere, et semper quam plurimum, dummodo hunc concoquat. Sed ut hujus generis exercitationes cibique necessarii sunt; sic athletici supervacui. Nam et intermissus, propter civiles aliquas necessitates, ordo exercitationis corpus affligit; et ea corpora, quae more eorum repleta sunt, celerrime et senescunt, et aegrotant."

Give the derivations or primary meanings of the following words:—Achromatism, barometer, cephalopoda, dimorphism, eremacausis, hæmadynamometer, isomerism, microscope, selenium, xanthine.

SECOND PART.

CHEMISTRY.

1. What is the composition of ammonia? How is it prepared? What are its properties and tests?
2. Mention some of the poisonous gases, specifying the class of poisons to which each belongs?
3. What is the composition of bone, of milk, and of blood?

THIRD PART.

MATERIA MEDICA.

1. Describe the different modes of operation of purgatives, and arrange the most important purgatives according to their respective modes of action.
2. What preparations of arsenic occur in the Pharmacopœia, and what are their respective average doses? Describe the principal therapeutic uses of these preparations. What are the symptoms that would lead you to suspect that a patient was suffering from chronic arsenical poisoning, and how would you proceed in your search for traces of arsenic in the matters he had vomited, or in his urine?
3. What are the principal uses of valerian, belladonna, ergot of rye, digitalis, and colchicum? Mention the average doses in which you would prescribe their different preparations.
4. Write Latin prescriptions, without using symbols or abbreviations, (1) for a diaphoretic draught, (2) for a cough mixture suitable to a case of chronic bronchitis, and (3) for an anti-spasmodic draught or mixture suitable to a case of hysteria.

Second Examination.

ANATOMY AND PHYSIOLOGY.

1. Describe the muscles which elevate and depress the larynx.
2. Describe the course and relations of the subclavian artery on the right and on the left side. At what point can compression be applied to this artery? In what cases may you be required to tie this vessel, and at what part of its course can a ligature be most readily applied?
3. What veins combine to form the portal system, and from what parts do they respectively convey the blood? Describe the course of the portal vein, and the mode in which it terminates.
4. Describe the sounds which accompany the heart's action. What are the causes of these sounds? What do you mean by a bellows sound, and in what morbid conditions may this sound accompany or replace either of the normal sounds?
5. What is the ordinary temperature of the interior of the human body, and to what extent is it modified by climate? Can a person bear a high temperature best in a dry or in a moist atmosphere? Explain the grounds on which your opinion is formed.

Third Examination.

N.B. In answering the practical questions, the examiners require every candidate to specify the mode of treatment which he is in the habit of adopting, and the doses of the medicines which he prescribes.

PRACTICE OF MEDICINE.

1. What are the characters of the urinary sediments containing uric acid, urates, phosphates, and oxalate of lime? Select any one of these for more particular remarks in respect to pathology and treatment.
2. Contrast chorea with the following nervous disorders—viz., infantile convulsions, epilepsy, tetanus, shaking palsy, muscular cramps. Mention what you know of chorea in its relations to age and sex, and describe very briefly and generally its prognosis and treatment.
3. Describe a typical case of typhus fever ending in the third week, with reference to the order and time of occurrence of the principal phenomena.
4. Give a brief account of the causes and treatment of hæmoptysis.
5. A man, aged 25, affected with signs of tubercle in the lungs, is seized with pain in the left ear, followed by a discharge of pus and deafness. These symptoms are partially relieved by blistering behind the affected ear, with constitutional tonic treatment. After a time, however, the left eyelid suddenly becomes incapable of closing, the features are distorted in speaking, the mouth and nostril are motionless on the left side, the tongue is protruded exactly in the middle line, sensation is unimpaired, consciousness is unaffected, and there is no paralysis of the limbs. Explain more fully these phenomena, which continued in this case unchanged till the death of the patient from phthisis.

Fourth Examination.

FIRST PART.

SURGERY.

1. Describe how tissues are destroyed by the processes of sloughing and ulceration respectively.
2. What are the different forms of dislocation of the elbow joint, and how would you treat each variety?
3. What is ranula, and how do you treat it?

4. A patient has a fluctuating, non-pulsating tumour at the upper third of the thigh, in front. It was first noticed two or three months ago, and has gradually attained its present size—that of an orange. For some time patient has complained of weakness at the lower part of the back, where there is a slight projection of the spine. What is the disease? Explain its origin and progress. What treatment would you adopt?

SECOND PART.

MIDWIFERY.

1. What are the signs of pregnancy available after it has continued six months? Give particularly the application of auscultation in such circumstances.

2. Describe the treatment of a case of placenta previa near the full time, the bleeding being considerable, and the mouth of the womb well dilated.

3. What are the ordinary causes of vesico-vaginal fistula, and what is its treatment?

4. A woman, aged 40, has had for more than a year a large swelling in the hypogastrium, gradually increasing. It is elastic, everywhere dull on percussion, has distinct fluctuation in parts, but not from side to side of the belly; and its shape is not globular, but nearly so. Menstruation is regular as usual. What is probably her disease, and how would you manage the case?

REVIEWS.

Researches on the Nature and Treatment of Diabetes. By F. W. Pavy, M.D., Fellow of the Royal College of Physicians, Assistant-Physician to, and Lecturer on Physiology at, Guy's Hospital. Demy 8vo. Pp. 210. London: Churchill, 1862.

A really good monograph is a most welcome contribution to Medical literature. By a good monograph we mean, not a book which merely defines, but one which more or less extends, the limits of our knowledge on some special subject. Of this latter kind is Dr. Pavy's new work on diabetes, a disease to which he has devoted many years of clinical observation and experimental research. The conclusions he arrives at seem to us so satisfactorily established, and are at the same time so greatly at variance with the current theory on the subject, that we feel called upon to give more than a cursory notice of his book.

Part I. discusses the relative value of the different tests for sugar. The one employed by Dr. Pavy in all his researches, as most reliable, is a modification of Fehling's cupro-potassic solution. By a very simple process he makes this solution available for estimating the quantity, as well as detecting the presence, of sugar.

Diabetes being characterised by an unnatural excretion of sugar with the urine, the first step in its investigation must necessarily be to determine the mode and amount of sugar-formation in the natural or healthy state. Accordingly in Part II. he considers very minutely "The Physiological Relations of Sugar." The current view of the nature of sugar-formation, or glycogenesis, in the healthy economy, is that which was promulgated a few years ago by M. Bernard. From observation of certain phenomena in diabetes, and from direct experiment on animals, he satisfied himself that the production of sugar in the body constituted a normal function of a special organ, viz., the liver, and that the sugar and starch taken with the food were a chief, but not the only, source of the sugar so produced. Bernard further demonstrated that the sugar was produced in the liver not directly, but indirectly, through chemical transformation of an allied substance stored in the hepatic cells, and having very much the character of dextrine. This substance he succeeded in isolating, and termed "the glycogenic matter of the liver," believing (from its very strong tendency to pass into sugar) that the formation of sugar was its normal destination. Dr. Pavy, for reasons which will appear, prefers calling it "amyloid matter."

Such, very briefly, was Bernard's theory of glycogenesis, and the theory generally accredited till Dr. Pavy made known the results of his own researches on the subject. In the course of his experiments on animals he noticed, first, that the size of the liver after death bore a constant relation to the nature of the food taken during the last few days of life, being at its minimum under a strictly animal diet, increasing under a mixed diet, and attaining its maximum under a diet wholly vegetable. Noticing, secondly, that such increase or decrease in size of liver was due chiefly, if not entirely, to a simultaneous increase or decrease in the amount of its amyloid matter, he drew the obvious conclusion, that the sugar and starch ingested with the food are made use of by the liver for the production of amyloid matter. So far Dr. Pavy's experiments furnish nothing contradictory to the old glycogenic theory. Taken alone they do but confirm the conclusion already arrived at by Bernard, viz., that the liver has the function of producing amyloid substance, and that the sugar and starch taken with the food are a principal source of the substance so produced. The point where the two experimentalists join issue is the physiological *destination* of this substance. Bernard, as we said before, believes it to be reconverted into sugar. Dr. Pavy believes that such is *not* its normal destination, save to an infinitesimally small extent, and, we think, supports his belief by arguments too many and too strong to be gainsaid. Some of the chief of them are as follows:—

(1.) Such a process as the conversion of sugar into amyloid matter, and of amyloid matter back again into sugar, seems irreconcilable with what we know of the manner in which nature's operations are wont to be conducted. (2.) It is not borne out by the experimental evidence adduced in its support. The experiment on which Bernard's theory rests is this—that, in recently-killed animals, fed for some days before death on an exclusively animal diet, the blood going *to* the liver is found to contain no sugar at all (or, speaking more correctly, merely a trace), while the liver itself and blood flowing *from* it are found to contain sugar in considerable quantity. That in an ordinarily-conducted examination such a difference *does* exist, after death, between the portal-vein blood on the one hand, and the liver and hepatic-vein blood on the other, Dr. Pavy readily admits; but he maintains that it has *only* a post-mortem existence, and therefore is not to be taken to represent what occurs *during life*. To ascertain their living condition a different method of experimenting must be adopted—one secured against the fallacy which besets Bernard's method. The liver and the blood flowing from it must be examined during life, or else so instantaneously after death, as to come upon them almost in their living or physiological state. This Dr. Pavy has with much ingenuity succeeded in doing, and the results of experiments so conducted have satisfied him that, under ordinary and healthy conditions, the liver itself, though charged with amyloid matter, yields only just a trace of sugar; that the blood of the hepatic veins likewise yields only just a trace—no more in fact than (if carefully sought for) is to be detected in the blood of the portal vein or of any other part of the whole circulation, venous or arterial. Dr. Pavy, therefore, holds that, under normal conditions, the amyloid matter remains in the hepatic cells without being transformed into sugar, and without escaping from them into the surrounding blood-capillaries *beyond a mere trace;* and that this trace (since by its very nature amyloid matter cannot come in contact with blood without passing into sugar) accounts for the trace of sugar always to be found in the circulation. Why the amyloid substance, which so rapidly transforms into sugar after death, should almost wholly resist such transformation during life, one cannot say. We simply know the fact, and a strange fact it is; but not more strange, Dr. Pavy observes, than that the fibrine of the blood, which coagulates after death, should remain fluid during life. (3.) The fact of a very minute quantity of sugar being normally present in all parts of the circulation alike, so far from favouring the glycogenic theory, is regarded by Dr. Pavy as another bit of evidence against it. Not only is it too purely chemical in origin and too insignificant in quantity, but it is also, he thinks, too unserviceable in destination, to justify the idea of any vital function having been concerned in its production. It does not undergo combustion in the lungs, for (if Dr. Pavy's observations are correct) the blood coming from the lungs is just as rich in sugar as the blood going to them. Neither is there evidence of its undergoing conversion into some other material useful for the purposes of the economy. The greater part, if not the whole of the sugar which has once got into the circulation, seems to be eliminated unchanged in the urine without having served any useful purpose on its way. "Now if," says Dr. Pavy, "the trace of sugar naturally existing in the blood cannot evade elimination from the system with the

urine, what, it may be asked, might reasonably be expected to occur, if sugar were extensively manufactured for constant passage from the liver, as was formerly supposed? Sugar arriving in quantity in the general circulation would render us all inevitably diabetics."—P. 97. (4.) In considering the various modes in which a saccharine condition of the urine may be artificially induced, he mentions as one of them the application of a ligature to the portal vein, and takes occasion to observe, that "if there were the constant production and flow of sugar from the liver through the hepatic veins, as is implied under the glycogenic theory, on interrupting the principal stream of blood through the organ, it would certainly be only reasonable to expect that less sugar should escape, and less sugar be found in the circulatory system. Yet, as the result of actual experiment, it would appear that precisely the reverse happens to be the case."—P. 82.

These are some of the chief arguments which he urges to prove, in opposition to the glycogenic theory, that the amyloid matter of the liver must have some destination other than the formation of sugar. What this destination is, he confesses himself unable as yet positively to determine; but the consideration of certain facts strongly inclines him to believe that the amyloid matter is ultimately intended for the production of *fat* in the system.

Part III. is occupied with "the Pathology and Treatment" of Diabetes. The recent views of the pathology of diabetes, being based on the glycogenic theory of Bernard, regarded the disease as consisting either in an excessive production of sugar in the liver or a defective destruction of it in the lungs. These views, of course, Dr. Pavy condemns, on physiological grounds already detailed. He likewise regards as untenable the supposition that the stomach is the organ primarily at fault. The conclusion he draws from all his researches is, that whatever the remote *cause*, the immediate *seat* of the disease is in the liver, and that the faulty action of this organ consists not in excessive production, but in defective assimilation of sugar—in its allowing the sugar simply to filter through its substance and enter the circulation unchanged, instead of taking it up *in transitu*, and elaborating it into amyloid matter to serve further ends in the economy.

The causes of diabetes he does not profess to know. He believes them to be various, just as there are various ways of inducing the disease artificially, but cerebral mischief of some kind he suspects to be one of the most common causes. The different symptoms and their import, the external and internal complications, and the usual terminations in this disease, are discussed very minutely. Pulmonary lesions, so common a cause of death in diabetes, he regards as the result of simple chronic inflammation set up, not by tubercular deposit, but by the unnatural state of the blood; the "cavities" being merely abscesses, with walls thickened by the inflammatory exudation.

The last thirty pages are devoted to Treatment. Diabetes being a disease of defective assimilation of a certain element of food, and such defect being, apparently, beyond the power of drugs to cure, the rational and, at the same time, most effectual treatment, according to Dr. Pavy, is to exclude from our patient's diet that particular element which fails to be assimilated. In other words, the treatment will be much more dietetic than medicinal. The immediate cause of the disturbances, both functional and structural, is the unnatural state of the blood from saccharine impregnation. By rigid abstinence from saccharine or starchy food, we reduce the amount of sugar in the blood to a minimum, and so maintain that fluid as near as possible in its natural state. In the common form of the disease, this regimen will not altogether rid the urine of sugar, for the sugar and starch of the food are not the only source from which that substance is derived. There are other sources, probably within the system itself, and these are out of our reach to command. It must be remembered, too, as was above explained, that just a trace of sugar is always passing off from the blood by the kidneys, and, therefore, must be considered a normal constituent of healthy urine. The influence of diet in controlling the elimination of sugar is considered very fully, and illustrated by a large mass of original clinical observation. The Practitioner will find in this portion of the work several eminently practical hints, which, probably, will not have occurred to him before. Dr. Pavy insists strongly on the danger of an unrestricted diet, even though, as is sometimes the case, it may cause the patient little or no aggravation of his sufferings. It puts him in a position of unnecessary insecurity, by increasing his liability to those "incidental complaints of a fatal character which a closer approximation to the healthy state, as regards the constitution of his blood, might have enabled him to escape." A most useful "Dietary for the Diabetic" is given in a tabular form, specifying the various articles of food and drink in which he may and may not indulge. It will be seen from this, that the diabetic may command a bill of fare, considerably restricted it is true, but still sufficiently varied not to prove irksome to any patient of average self-denial and common sense. Dr. Pavy has lately invented, as a substitute for wheat bread in diabetes, an "almond food," in the shape of rusks and biscuits, and speaks well of its good effects, as far as he has yet had opportunities of observing them. Its sole ingredients are eggs and blanched almond powder, freed from all gum and sugar. It is prepared and sold by Mr. W. Hill, 60 and 61, Bishopsgate-street, E.C., at 2s. per lb. It keeps well, is about the same price, and, to our own taste, far more palatable than either of the ordinary substitutes,—viz., bran or gluten bread, biscuits, etc. It differs from these, not merely in being *wholly* free from sugar or sugar-forming elements, but also in containing a large proportion of oleaginous, *as well* as nitrogenous matter, in an easily-digestible form. In the medical treatment of this disease, Dr. Pavy knows of no specific remedy. Stated briefly, his directions amount to this:—To keep the patient in as healthy a state as possible, and treat symptoms as they arise. The mineral acids have seemed to him to do good in some cases, the alkalies in others. Opium he has found invaluable in relieving the distressing sense of emptiness and gnawing at the stomach.

As a contribution to Medical science, this book fairly entitles the author to the gratitude of our Profession. In the Physiology and Pathology of Sugar Formation he leaves much, it is true, still to be made out; but he has reached a standing-ground of truth which affords reasonable prospect of further discovery. We sincerely hope he will continue his researches in the same direction. He has already attained results which would have repaid a lifetime's labour. Honestly, skilfully, and perseveringly, he has "interrogated" Nature. When she will not answer his question in one shape, he puts it in another. When her answers are such as he either cannot interpret or cannot reconcile with his own hypothesis, he fairly records them: he never twists her evidence. It is to such inquirers, and to such alone, that she is wont to reveal her secrets.

The book, we are bound to say, has serious *literary* faults. The punctuation, especially in the use of the comma, is very frequently quite unintelligible. There is hardly a page which does not furnish some instance of wholesale violation of the rules which regulate the pointing of a sentence. Though always clear in his meaning, he often expresses it in very slovenly language—often, too, with needless repetition and cumbrous verbiage. For the purposes of casual reference, the book is most inconveniently arranged. There is neither index nor analytical table of contents; and the page-headings indicate only the main subject of the "Part," not the special point of it which is there being discussed.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE TREATMENT OF NÆVUS BY TARTAR EMETIC.

By Professor ZEISSL.

Professor Zeissl has found that nævi of medium size are best treated by the application of tartar emetic, which is both safe and effectual. It is true that this substance has long since been used for this purpose, and without much success; but in the employment of cauteries it is not of so much consequence which caustics we use, as how we use them. Neither a solution of tartar emetic nor the ointment will produce the desired effect. A plaster should be made of from sixteen to eighteen grains of tartar emetic, and one drachm of diachylon, and a considerable portion of this should be spread all over and somewhat beyond the nævus by means of the back of a strong knife, and kept *in situ* by strips of gummed paper. On the fifth or sixth day the entire surface of the nævus begins to suppurate, a crust gradually forming, which falls off in

about fourteen days, leaving a most surprisingly slight cicatrix. If the suppuration is very profuse we may replace the plaster by simple oil dressing ; but when it is not profuse the plaster may be left on until it falls off. When the plaster becomes accidentally removed wholly or in part, it must be renewed. Dr. Zeissl has repeatedly employed this application, both in children and in adults, without pain being produced. He has, however, never as yet resorted to it for nævi of the mucous membrane of the lips.—*Wien Wochenblatt*, No. 9.

ON HYPERTROPHY OF THE HEART, AND DISEASE OF THE CEREBRAL ARTERIES IN RELATION TO APOPLEXY.

By Dr. EULENBERG.

In his recent Prize Essay, Dr. Eulenberg arrives at the following conclusions from a consideration of the cases which have come under his own notice and a comprehensive review of the literature of the subject:—1. In by far the greater majority of cases cerebral hæmorrhage is due to degenerations of the cerebral arteries as its predisposing cause. In the smaller arterics these consist of fatty metamorphosis or simple atrophy, with the various forms of consecutive dilatation ; while in the large arteries of the base there is arteritis issuing in ossification or fatty degeneration, or passive calcification. The direct influence of this last process in the production of cerebral hæmorrhage is but slight. 2. A not entirely rare cause of the rupture are true aneurisms of the large cerebral arteries, the etiology of which (when not connected with primary degeneration of the coats of the vessel) is completely unknown. 3. Hypertrophy of the left ventricle will only favour cerebral hæmorrhage when it permanently increases the normal tension of the aortal system. This, however, is only the case in peripheric disturbances of the circulation (especially in contracted kidney and diffuse arterial sclerosis), and not in the compensating hypertrophy of valvular disease of the heart. Upon the whole, cardiac hypertrophy is a much more rare accompaniment of apoplexy than arterial degeneration. 4. In about one-seventh of all cases of apoplexy, neither predisposing diseases of the heart or of the vessels could be demonstrated.—*Virchow's Archiv.* Vol. xxiv., p. 329.

EXCERPTA MINORA.

The Danger of Iron in Phthisis.—Dr. Millet, Physician to the Colony at Mettray, as the result of reiterated observation, arrives at the following conclusions :—1. The pseudo-chlorosis, which is one of the precursors of phthisis in a certain number of young girls, does not disappear completely under the use of ferruginous preparations, any improvement which occurs during the use of the iron ceasing when this is suspended. 2. Phthisis, masked by pseudo-chlorosis, has always been frightfully accelerated in its progress by the use of iron, in the numerous cases which have come under our notice. 3. Cod-liver oil and some other preparations may arrest the progress of a commencing phthisis, while iron determines accidents which are beyond the reach of art. 4. Iron should never be administered without auscultation having been carefully performed, and it must always be excluded when there are signs of commencing phthisis. 5. No ferruginous preparation, with whatever name it may be decorated, is of the slightest efficacy in phthisis. All are alike dangerous and prejudicial.—*Bull. de Thérapeut.*

If we may judge from their advertisements, alcoholic drams and other stimulants are much in use in the United States. Here are specimens :—"Gunjah-Wallah.—The great Turkish Exhilarant and Nervine. Perfect and harmless substitute for liquors, smoking, opium, and stimulants, producing a gentle, *spirituelle* elevation of spirits, without any reaction whatever. Cures, almost instantaneously, nervousness, weakness, depression of spirits, rheumatism, palpitation of heart. Put up in elegant gold, silver, satin, and ivory boxes, 25 cents each ; 5 boxes, in Turkish carton, $1. Immense quantities selling. Agencies wanted everywhere. Sold by druggists." —"Drake's Plantation Bitters are the best bitters in the world. They make the weak man strong, and are exhausted Nature's great restorer. They are made of pure St. Croix rum, the celebrated Calisaya bark, roots and herbs, and are taken with the pleasure of a beverage, without regard to age or time of day. . Particularly recommended to delicate persons requiring a gentle stimulant. Sold by all grocers, druggists, hotels, and saloons."

FOREIGN AND PROVINCIAL CORRESPONDENCE.

AUSTRIA.

Vienna, October 12.

THE CONGRESS OF GERMAN DENTISTS.

Last month the Annual Congress of the Central Association of German Dentists took place here, in the rooms of the Imperial Academy of Sciences, which had been offered by the Government to the Dentists assembled.

About ninety gentlemen, from all parts of Germany and Austria, were present, amongst whom I may mention Professors Heider and Zsigmondy, of Vienna ; Professor Strasky, of Lemberg ; Dr. Barna, of Pesth ; Dr. Süersen, of Berlin ; M. Blume, of Berne ; and Dr. Hering, of Leipzig. The chair was taken by Professor Heider, who is well known by having first used the galvanic cautery in dental surgery.

Amongst the more important subjects which came under discussion, the value of local anæsthetics for dental operations was fully gone into. Communications were made on the action of coniine, cold, electricity, chloroform, cochineal, chloroform with camphor, chloroform with tincture of aconite, and acidum aceticum glaciale, ether with camphor, compression, nicotine, and others. All these means had wholly failed to induce anæsthesia. M. Marcowitz, of Temesvar, however, remarked that, while staying in the East, he had often seen a concentrated extract of tobacco leaves applied to the gums, which, although unpleasant and pungent, yet seemed, in some cases, to be efficacious. M. Heider recommended caution in the use of nicotine, as symptoms of poisoning with this substance had been observed in some cases in which it was used for dental operations.

The next subject introduced was alveolar abscess, both in the upper and in the lower jaw, and its treatment. The theory, that teeth should not be extracted so long as there was any intumescence, was rejected by all those present, this theory being probably the consequence of the employment of the key in such conditions, and which should, therefore, not be used, as pressure of any kind ought to be carefully avoided. The use of vulcanised India-rubber in Dental Surgery was then discussed. M. Süersen, of Berlin, said, that the result of several quantitative chemical analyses and of his practical experience was, that Faulkner's orange rubber was preferable to the other kinds, especially to the pink ones, both as regards tenacity and durability. This was a perfectly innocuous substance. He had not yet analysed Ash's pink vulcanite, No. 1, which had quite lately come into use, and which, on account of its colour, was no doubt the best, but in working it up, it was seen that this substance was much less tenacious than orange rubber. He showed several sets of teeth made of the several kinds of India-rubber. As regards the mode of vulcanising, he thought it advisable that the temperature should neither be raised nor diminished very rapidly. A temperature of 380° to 386°, kept up for about one hour and a-quarter, was necessary for orange rubber as well as for pink vulcanite, No. 1. After this it was better not to let the steam escape, but merely to withdraw the fire, and not to open the apparatus before the steam had again been condensed to water. He also showed a specimen for the lower jaw, which was softer and more elastic than those usually employed, in order to diminish the pressure and to increase the power of suction. This was made of India-rubber, vulcanised at a temperature of 380° for ten minutes.

M. Süersen then made some remarks on the transplantation of teeth. By this he did not understand the extraction of a healthy tooth and its immediate implantation into the jaw of another person, but the implantation of human teeth extracted some time before. This latter method had been practised by Dr. Mitscherlich, of Berlin, for the last eighteen months, with the most satisfactory results. The tooth itself did not play any active part in this process, but it was merely the periosteum of the alveoli, through which the tooth became fixed in the jaw. This was much the same process as was observed in sub-periosteal resections. An exudation took place from the periosteum, which, at first liquid, gradually became ossified, and embraced the root of the tooth, so as to keep it in its right position.

In order that the operation might prove successful it was

necessary that the periosteum should be healthy: if periostitis were present, or had been present, and more especially if it had resulted in suppuration, the operation should not be performed. The patient should be in good general health, and not too far advanced in age: in old, decrepit persons successful results could not be expected. Moreover, any unsteadiness on the part of the patient might cause the operation to fail in the end. Finally, it was necessary that the alveolus should be of normal size, for if the root of the extracted tooth had already been partially absorbed, and the size of the alveolus thus become diminished, a successful result was not likely to occur. Regarding the operative proceedings, it was chiefly important that, in removing the root, the alveolus and its periosteum should not be injured. The tooth to be implanted should be selected with the greatest care, regard being had to the shape of the root, and after implantation the tooth itself and its neighbours should be surrounded with a gutta-percha splint, in order to protect them from injurious influences: this splint ought to be left on for a month without interruption. Should it be necessary to shorten the root before implanting it, no sharp angles should be left, as such would produce irritation, inflammation, and suppuration in the periosteum. After a month the splint might be removed; but for some time afterwards the patient should avoid mastication, as much as possible, on that side where the operation had been performed. We could judge of the practical value of this operation only by a large number of cases. Up to the present time Dr. Mitscherlich had been successful in eight cases out of ten, and Mr. Suersen himself in two out of seven. The first five cases operated upon by the latter gentleman had failed, because he had then not had a sufficient store of human teeth, so that he could not choose such, the roots of which were entirely adapted to the alveoli. If Dr. Mitscherlich's theory, that the tooth itself played quite an inactive part in this process of implantation, should prove correct, it would no doubt be possible to implant artificial teeth as well, and to cause them to grow together with the bone. Several other subjects were discussed after this, but as not much important matter was elicited, I shall not advert to it. Frankfort was chosen as the seat of next year's congress.

SWITZERLAND.

St. Moritz, September 10.

THE CLIMATE AND THE SPA.

That part of Switzerland which is called the Engadin, in the canton of Grison, has only within the last decennia been opened to travellers by the construction of comfortable high roads. The baths of this place, which are situated in the upper Engadin, are, on this account, a novelty to tourists generally, and patients, although the beauties of the place were long known to members of the Alpine Club, and the springs had always figured in works on Spas. Paracelsus declared these chalybeates to be the best in all Europe; and many Physicians who lived in the middle ages have mentioned them, and recommended their use. They were, however, afterwards forgotten, and were nearly choked up with rubbish, until fresh attention was directed to them about ten years ago; at the same time access to the place was rendered possible for even the most feeble patients.

The journey to St. Moritz may be made from Chur across the Julier-pass in twelve hours; from Inspruck, through the valley of the Inn, from Milan, by way of Como and the pass of Maloja or Berina, in twenty hours. The village of St. Moritz, one of the highest inhabited valleys in Europe, is situated 5600 feet above the level of the sea; the springs and bathing establishments are situated somewhat lower, viz., 5464 feet. The neighbourhood abounds in lovely views, magnificent peaks, glaciers, valleys and lakes; and the flora consists chiefly of grasses, and forests of pinus larix and pinus cimbra.

The effects of the climate and the mineral waters are equally important. The barometric pressure at this place is five inches less than it is in London, and the mean temperature of the summer months is, at the same time, very mild. Experience has shown that by a mere stay in this place circulation and respiration are accelerated, the appetite increased, and the waste of tissue stimulated. The complexion assumes a ruddy hue, and a feeling of elasticity in the whole frame is felt, especially while walking or climbing the mountains. It frequently happens that patients, who, when they first arrive here, are altogether disinclined for the most trifling exertion, will, after a few days, run about the mountains without the slightest fatigue. The variations of temperature from morning to evening amount, in the summer months, to from 41° to 72° 5 F.; the extremes which during this time occur now and then being 32° as minimum, and 88° as maximum. The season lasts from June 21 to September 10 (82 days). Of these 56 are, on the average, bright and sunny, 9 clouded, 12 foggy, 27 rainy, and 1 on which there is a fall of snow. The wind is generally S.W., more rarely N.E. Perpetual snow only commences at 9450 feet here, while in other parts of Switzerland it begins at 8000 feet.

The climate is, therefore, distinguished for highly-rarefied air, mild temperature, and comparative dryness; which latter quality is of importance for the cure of chronic blennorrhœa and kindred affections. The combination of this strengthening and invigorating climate with chalybeate springs is peculiarly fortunate. The waters contain, in a thousand grammes,—

	Grammes.
Carbonate of lime	0·7264
Carbonate of magnesia	0·1254
Carbonate of iron	0·0237
Carbonate of manganese	0·0041
Carbonate of soda	0·1904
Chloride of sodium	0·0389
Sulphate of soda	0·2723
Sulphate of potash	0·0164
Silica	0·0381
Phosphoric acid	0·0004
Alumina	0·0003
Bromides, iodides, fluorides	traces.
	1·4364
Carbonic acid	1526 c. c.

The temperature of the spring is 42°, and its specific gravity at 60° = 1·00215. When the waters were cleared of the rubbish which had covered them up, the hollowed trunk of a larch tree, several feet in diameter and eight feet long, was found placed over the granite from which the spring rises. A shepherd's stick was also found, on which the number 1004 was cut, from which we may infer that the spring was used more than 800 years ago.

A large establishment is erected over the spring, which contains several hundred apartments, and offers every comfort to patients and visitors. It is now in course of enlargement, so that next year it will contain accommodation for 1000 visitors. Moreover, there are boarding-houses and hotels in the village, which is about a quarter of an hour distant. If anything is to be complained of it is the meals, which are rather too scanty for a greatly-increased appetite.

The baths are very convenient. The water is pumped from the spring, and heated in the tubs by means of a steam-engine; so that a bath may assume a suitable temperature at a minute's notice, and without loss of carbonic acid. The considerable quantity of this gas contained in the water renders the bath particularly pleasant, and which at a temperature of 83° gives the sensation of an agreeable pricking heat on the whole surface of the body. I need not enter fully into the effects of these effervescing baths, as they have been so well described by Dr. Althaus, in his treatise on "The Spas of Europe." The temperature of the baths generally commences at 90°, and this is gradually diminished every day until it reaches 81°. Its duration varies from a quarter to three-quarters of an hour. The water is also drunk, and if it proves too cold for the patient, it is slightly heated in the bath, or some warm whey is added to it. It improves digestion; and, where there are obstructions, the water of Tarasp, which is close by, and contains salines, may be taken in addition.

The chief diseases in which the climate and the waters of St. Moritz have proved useful are the following:—anæmia, chlorosis, general weakness, torpid scrofula, rickets, scurvy, weakness after severe diseases, such as typhoid fever, ague, with or without tumour of the spleen, atonic gout and hæmorrhoids, atony of the nervous system, giddiness, headache, hemicrania, colics, and certain forms of spasms and paralysis, blennorrhœa of the bladder and intestines, helminthiasis, gravel, and renal calculi. The waters should not be used by plethoric persons, in acute diseases, pregnancy, acute tuberculosis, diseases of the heart, epilepsy, etc. Children

may take the baths and drink the water, either cold or slightly warmed.

The population of the village consists almost entirely of retired pastrycooks and confectioners. For centuries the St. Moritzers have migrated, in search of a fortune, to pastrycook shops all over Europe. Several have returned with very large fortunes, and the village is altogether in affluent circumstances. As there is a considerable and rapidly-increasing influx of visitors every summer, it is better to order apartments some time before undertaking the journey. This may be done by writing either to the directors of the Spa, or to the proprietors of the Hotel Badruth, which is the best; Hotel Kreuz and Pension Bavier are second-rate. The payment varies from 5 to 8 francs per diem.

EDINBURGH.

October, 1862.

You have, I suppose, got fairly into the swing of work in London. We hope to do so by the 4th of next month; but already the dissecting-rooms are filling, the instrument-makers' counters covered with scalpel-cases, lecture-rooms being swept out, and, I have no doubt, many introductory lectures being composed. And what a very serious thing an introductory lecture is, to judge by those lately published! Why should a poor, inoffensive student be preached at; why pelt him with old-world quotations? Surely he must be aware that "a wise physician, etc., etc.," is a useful member of society, that Jenner discovered vaccination, and so on, without being told so with sesquipedalian violence by a lecturer. Fergusson alone stuck to his subject, and his speech reads well: so do they all indeed,—too well, perhaps,—and I can only express a hope that the charming prospect held out to the novitiates may come true.

Since I last wrote we have got a Medical officer of health, and have lost a Medical lecturer. Dr. Littlejohn who has for several years been the Police-Surgeon, has been appointed our——*nurse* is the best word. This gentleman has, during his occupation of a very difficult position, gained the good opinion and confidence of his Professional brethren to a very remarkable degree. Perhaps few of your readers know what the duties of such an officer are in Scotland. They are so numerous that I can only remember a few of them. As Lord Dundreary would say, "They're what *no* fl'ow can understand"; but they involve doctoring sick policemen and women, examining cases of sudden death, trying to determine whether the few babies found every morning in the common stairs were born alive, or whether the boot-laces round their necks were congenital, in the strict sense of that word. Should an accident happen, this ubiquitous Doctor must be there; should a murder case be tried, Dr. Littlejohn's evidence is anxiously listened to, as it is always cautious and to the point; should there be a difficulty as to whether Sandy McPherson cut his own throat or his friend, Lachlan, did it for him after their tenth tumbler, our police Doctor soon settles the matter. If innocent, Lachlan may drop the alcoholic tear in peace over his clansman's bier—if he did happen to divide Lachlan's weasand, but one of our many insurance offices would accept his life if this active Doctor gets anything like a fair chance at him. But, joking apart, although few believe that one man can perform the duties of Police Surgeon and Health Officer at the same time (the bull is the Town Council's, not mine), all agree that, if any one can, the right man has been selected; and if the arrangement is found not to be successful, that will always be a comfort. Our excellent townsman, Dr. W. T. Gairdner, goes to profess and practise his art in Glasgow; he can do both well, which is not always the case. There were several candidates all good, but he was undoubtedly the best, and was elected (accidents *will* happen). Glasgow is a long-suffering town; her native talent won't have a chair to sit upon soon. As our Lord Advocate, who decides such matters, does not like to see his neighbours standing—no gentleman does, however—so long as he sends them such men as Lister and Gairdner they have no cause to complain. Many, while they rejoice in the latter's success, will miss a pleasant acquaintance and a kind friend, who, however, is only a few hours distant, and will, I have no doubt, be delighted to come, and, for value received, feel the pulses and look at the tongues of his old friends.

Talking of Glasgow, a fearful accident took place the other night on that line of railway. Circumstances obliged two trains to go on one set of rails; some one did some trifle he should not, or *vice versâ*; so let us all blame him; he's a poor man, and won't prosecute me for libel, so I'll say it was *he* who has strewn the floor of two rooms in the police-office with dead bodies, sent several cases into the Infirmary Wards, who has left in Linlithgow several more, and caused a proportionate amount of misery in many a home to-night. Of course, only the poor signal-man is to blame; but I should like to shut up the chairman, or some other official of the company, all this night with those I saw to-day. One man with his jaw smashed; next him, a stout, good-looking man, with a smile on his face; three more next them; then a very old woman. Fancy struggling through seventy years of existence, and having the few remaining crumbs of life shaken out of one in this way, and the poor old bag that held them laid on a shelf in a police station! Then there is the guard's wife, a handsome woman, of middle age; her husband is being tended by kind hands in the Infirmary. Close by her is a stout girl, probably a servant maid going to a situation; her bloated face, staring eyes, and protruded tongue tell of suffocation. At the further end of the room is such a handsome fellow, tall and strong, with high features and long black whiskers, and calm, bold expression on his thin, white lips. Where is this to stop? I suppose the poor signal-man will be punished; but why should trains coming from opposite directions rush towards each other on the same line of rails? Some one should be hung.

We have been much excited here about the recent murder cases in Glasgow: some advocate hanging the woman, who, by her own confession, knows all about the business; others seem inclined to hang the old man. Neither would be a great loss to society, to judge from the various reports current just now.

We have also had an agitation lately about opening the Botanical Gardens upon Sunday. These gardens were never intended as pleasure-grounds; and the non-botanical portion of the population wanting to trample over them on Sunday for recreation is like a child crying for a costly dictionary under the impression it is a picture-book. They would find little pleasure in the mere promenade through beds planted with stumpy "natural orders;" they can surely spare an hour on other days to see the palm-house. The theory of requiring to go into the gardens on Sunday for purposes of study is absurd. Real students work during the other part of

> "The week, in which six days are kindly given
> To think of earth, and *one* to think of heaven."

Dr. Haldane is to lecture on Medicine, and have wards in the Infirmary, an arrangement which enabled Dr. Stewart to obtain the post of Pathologist, which has been so well filled by Dr. Haldane. There were only two candidates for the appointment—Stewart and Peter Young. When one sees two such men go in for the same appointment, the idea of the "*concours*" suggests itself. But the directors are only influenced by a desire to get the best man; and, though "commentators differ" as to the merits of the two, I am sure every one will consider the Hospital fortunate in securing Stewart's services; and Young has plenty to do elsewhere.

Not many hours ago the sun was shining, and only a slight breeze disturbed the ripples of the Frith, but the singular structure called "storm signal," by Admiral Fitzroy, and the "crinoline" at Newhaven, was hoisted at Leith. Now, while I write, the wind is howling through the streets, the doors and windows are shaking, soot is tumbling down the chimney. "It's an unco' coorse nicht," and many a fisherman, snug in bed in his cottage on the beach, should, and will, I hope, bless the Admiral's crinoline. But with this I've nothing to do, of course, as it merely involves life, and has nothing more to do with the preservation of tissue, *vide* the cynical Frenchman:

> "Eusebe: Je suis venu à Paris pour . . . étudier la vie.
> Le Greffier: Etudier la *vie!* . . . ce n'est pas un *Médecin.*"

And I am one.

University of Cambridge.—At a Congregation on the 16th inst., Dr. Humphry, of Downing College, and Mr. Lestourgeon, of Trinity College, were appointed Examiners of candidates for the Degree of Master in Surgery during the ensuing year, in addition to the *ex officio* Examiners.

GENERAL CORRESPONDENCE.

THE BRAIN OF MAN AND APES.

LETTER FROM THOMAS HENRY HUXLEY, F.R.S.

[To the Editor of the Medical Times and Gazette.]

SIR,—I do not purpose to trouble you with any discussion of the paper, purporting to be a report of Professor Owen's statements at the late meeting of the British Association, which headed the last number of the *Medical Times;* but lest your readers may suppose (to use the phraseology of the writer of that article) "that my silence gives consent" to any part of that unparalleled document, I will request you to be so good as to allow me to state my reasons for thinking that, on this occasion, if "speech is silvern, silence is golden."

In the year 1857, Professor Owen submitted to the Linnæan Society a paper "On the Characters, Principles of Division, and Primary Groups of the Class Mammalia," which was printed in the Society's Journal, and contains the following passage:—"In man, the brain presents an ascensive step in development, higher and more strongly marked than that by which the preceding sub-class was distinguished from the one below it. Not only do the cerebral hemispheres overlap the olfactory lobes and cerebellum, but they extend in advance of the one and further back than the other. Their posterior development is so marked, that anatomists have assigned to that part the character of a third lobe; *it is peculiar to the genus Homo, and equally peculiar is the posterior horn of the lateral ventricle and the 'hippocampus minor' which characterise the hind lobe of each hemisphere.*"—*Journal of the Proceedings of the Linnæan Society*, Vol. ii. p. 19.

As the essay in which this passage stands had no less ambitious an aim than the remodelling of the classification of the mammalia, its author might be supposed to have written under a sense of peculiar responsibility, and to have tested, with especial care, the statements he ventured to promulgate. And even if this be expecting too much, hastiness, or want of opportunity for due deliberation, cannot now be pleaded in extenuation of any shortcomings; for the propositions cited were repeated two years afterwards in the Reade Lecture, delivered before so grave a body as the University of Cambridge in 1859.

When the assertions which I have italicised in the above extract, first came under my notice, I was not a little astonished at so flat a contradiction of the doctrines current among well-informed anatomists; but, not unnaturally imagining that the deliberate statements of a responsible person must have some foundation in fact, I deemed it my duty to investigate the subject anew before the time at which it would be my business to lecture thereupon came round. The result of my inquiries was to prove that Mr. Owen's three assertions, that "the third lobe, the posterior horn of the lateral ventricle, and the hippocampus minor," are "peculiar to the genus *Homo*," are contrary to the plainest facts. I communicated this conclusion to the students of my class; and then, having no desire to embark in a controversy which could not redound to the honour of British science, whatever its issue, I turned to more congenial occupations.

The time speedily arrived, however, when a persistence in this reticence would have involved me in an unworthy paltering with truth.

At the meeting of the British Association at Oxford, in 1860, Professor Owen repeated these assertions in my presence, and, of course, I immediately gave them a direct and unqualified contradiction, pledging myself to justify that unusual procedure elsewhere. I redeemed that pledge by publishing, in the January number of the *Natural History Review* for 1861, an article wherein the truth of the three following propositions was fully demonstrated (*l. c.* p. 71):—

"1. That the third lobe is neither peculiar to, nor characteristic of, man, seeing that it exists in all the higher quadrumana.

"2. That the posterior cornu of the lateral ventricle is neither peculiar to, nor characteristic of, man, inasmuch as it also exists in the higher quadrumana.

"3. That the *hippocampus minor* is neither peculiar to, nor characteristic of, man, as it is found in certain of the higher quadrumana."

From this time forth the untenability of his position ought to have been as apparent to Professor Owen as to every one else; but, so far from retracting the grave errors into which he had fallen, or, as the smallest of concessions to justice, holding his peace about them, Professor Owen has persisted in and reiterated them, first, before the Royal Institution, and in the *Athenæum;* afterwards, in the *Annals of Natural History* (June, 1861); and again, at the meeting of the British Association at Manchester last year.

If this were a question of opinion, Sir, or a question of interpretation of parts or of terms,—were it even a question of observation in which the testimony of my own senses alone was pitted against that of another person, I should adopt a very different tone in discussing this matter. I should, in all humility, admit the likelihood of having myself erred in judgment, failed in knowledge, or been blinded by prejudice.

But no one pretends now, that the controversy is one of terms or of opinions. Novel and devoid of authority as some of Professor Owen's proposed definitions may have been, they might be accepted without changing the great features of the case. Hence, though special investigations into these matters have been undertaken during the last two years by Dr. Allen Thomson, by Dr. Rolleston, by Mr. Marshall, and by Mr. Flower, all, as you are aware, anatomists of repute in this country, and by Professors Schroeder Van der Kolk, and Vrolik (whom Professor Owen incautiously tried to press into his own service) on the Continent, all these able and conscientious observers have with one accord testified to the accuracy of my statements, and to the utter baselessness of the assertions of Professor Owen. Even the venerable Rudolph Wagner, whom no man will accuse of progressionist proclivities, has raised his voice on the same side; while not a single anatomist, great or small, has supported Professor Owen.

Now, I do not mean to suggest that scientific differences should be settled by universal suffrage, but I do conceive that solid proofs must be met by something more than empty and unsupported assertions. Yet during the two years through which this preposterous controversy has dragged its weary length, Professor Owen has not ventured to bring forward a single preparation in support of his often-repeated assertions.

The case stands thus, therefore:—Not only are the statements made by me in consonance with the doctrines of the best older authorities, and with those of all recent investigators, but I am quite ready to demonstrate them on the first monkey that comes to hand; while Profesor Owen's assertions are not only in diametrical opposition to both old and new authorities, but he has not produced, and, I will add, cannot produce, a single preparation which justifies them.

I am, etc.

THOMAS HENRY HUXLEY, F.R.S.

The Royal School of Mines, Jermyn-street,
October 14, 1862.

CASE OF DEAFNESS AND OTORRHŒA FROM THE LODGMENT OF A FOREIGN BODY IN THE EAR.

LETTER FROM DR. T. B. MORIARTY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I will feel thankful if you will give the following case of deafness and otorrhœa a place in your columns. The remedies successfully employed may be a guide to the treatment of cases of a similar nature; and the history of the case may serve to point out how easily the fabric and functions of the ear can be disarranged.

On September 20, Jane B. consulted me for deafness of the left ear, of a month's duration. No cause could be assigned for the deafness beyond the belief that it was the result of a cold. For the last seventeen days there had been a profuse discharge, which gave rise to excoriation of the external meatus. Previous to visiting me she had blisters applied behind her ear without any benefit. After cleaning the ear I made an examination with the ear speculum; owing to the quantity of the discharge, the examination was unsatisfactory. I directed a poppy-head fomentation, and a careful syringing of soap and water to be employed, and to apply drops of equal parts of tincture of opium, ether, and chloroform afterwards. I saw her on the following Tuesday, and as the ear appeared much cleaner than on the previous day, I made another examination with the speculum. I then recognised a delicate film of some kind lying against the membrana tympani. After failing to extract, or ascertain its nature by means of a bent scoop, I dilated the meatus

sufficiently with a small dressing forceps to enable me to see that there was no ulceration of the membrane itself. On withdrawing the forceps I grasped the film gently, and, to my great amazement, extracted a grain of barley, the pulp of which was a digested mass, which emitted a most disagreeable odour. The spermoderm itself was split into two parts,—a condition which clearly showed that the grain must have been there for a considerable time. Poppy fomentations were again applied, and drops of equal parts of tincture of opium and chloroform to be continued. Six days afterwards the hearing was perfect. I am, &c.

T. B. Moriarty, A.B., M.D., etc.

Limerick, October 13.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, October 21.

Dr. Copland, President, in the Chair.

The President, in a few introductory remarks, congratulated the Members on the success of the past session. The volume of *Transactions* was equal to any of the past. He hoped that the members, had acquired a sufficient stock of health during the recent recess to enable them to prosecute their studies in pathology with zeal and success.

Dr. Gibb exhibited specimens showing

DESTRUCTION OF THE EPIGLOTTIS, AND OF THE RIGHT ARYTENOID CARTILAGE, WITH NECROSIS OF THE OTHER CARTILAGES.

This specimen was taken from a Surgeon, aged 55 years. His general health had been bad for years; laryngeal symptoms with hoarseness had been present for two years, when he consulted Dr. Gibb in February, 1862. He had been subject to pain, dysphagia, and the secretion of viscid mucus, which kept him incessantly hawking and raking to clear the glottis. Liquids often regurgitated through the nostrils. Attacks of spasm of the glottis came on generally twice a-day, followed by extreme dyspnœa, pain, and the outpouring of quantities of plastic secretion. When not swallowing he was easy. He was examined with the laryngoscope in the presence of Dr. Davis, of Putney; the mucous membrane of the entire fauces and larynx was relaxed, congested, and pouring out mucus. The membrane possessed a purple redness on the right side of the pharynx low down, spreading to the tongue, and was the seat of the constant pain in swallowing. The epiglottis was red and swollen, and clearly visible. The action of the parts was free, and the vocal cords normal; the voice strong, but rough and cavernous. The follicles were much enlarged at the base of the tongue, and seen pouring out frothy mucus. Emaciation was extreme. He had been subject to bronchitic attacks, but the lungs were apparently sound; the respirations 10 or 12 per minute, and the pulse 68; vocal resonance was good all over the chest. The misery he suffered was most extreme, and he died actually worn out from exhaustion and starvation in May, 1862. After death, the free portion of the epiglottis was found wholly destroyed. This had occurred in the space of three months, but was not the cause of the long suffering endured. That was found to depend upon caries and ulceration of the right arytenoid cartilage, which had commenced to perforate the membrane. The movements of this part in swallowing food or saliva gave rise to the fearful attacks of dyspnœa and spasm. The other cartilages of the larynx were undergoing calcification and necrosis. A few little ulcers were seen here and there. The lungs were crepitant throughout, and partially collapsed on opening the chest; here and there some of the bronchial tubes terminated in bulbous expansions, around which were a few calcareous (not tuberculous) deposits. One testicle was enlarged, and presented a yellow, striated, fibrous appearance on section. Dr. Gibb believed that the state of the right arytenoid cartilage gave rise, in the beginning, to all the mischief, induced by some constitutional cause, at present only surmised. It explained the attacks of spasm, and the dysphagia. It was a remarkable circumstance that the epiglottis was destroyed in such a short period of time; but very probably the ulcerative process had commenced at its base.

Dr. Crisp said that he had seen the specimens exhibited by Dr. Gibb, when in the recent state. He had made a microscopic examination. The lungs were infiltrated with a sort of fibro-albuminous exudation, which was not tubercular. He did not think that there was more foundation for the suspicion of syphilis than mere report. There was no real evidence of it.

Dr. Gibb replied, that the suspicion as to syphilis originated with the patient himself. The patient denied having ever had any primary disease himself; but feared that he had inherited it.

Mr. Canton exhibited

A HORN, REMOVED FROM THE UPPER EYELID OF AN OLD WOMAN.

The patient was a woman 70 years of age, from whom, a few days ago, he had removed the growth exhibited. It began four years ago; it commenced in a wart, and gradually increased. There were no other growths anywhere else, and there was nothing to lead to a suspicion of cancer.

The President said, that the position was a very singular one. The pathologists of the sixteenth century considered that in persons who had horns of this kind there were to be traced indications of their likeness to the lower animals in other respects.

Mr. Henry Thompson showed a specimen of

ELEPHANTIASIS OF THE LEG.

It had been sent to him by Dr. Fiddes, of Jamaica, in a cask, preserved in rum. It was removed from a middle-aged negro by amputation above the knee-joint. This disease, Dr. Fiddes stated, never extended higher than the knee; and hence, that amputation just above the knee, taking a flap from the gastrocnemius, might be performed with certainty of a radical cure. The muscles were found to be in a state of fatty degeneration, but this did not prevent healing any more than arcus senilis did the healing after section of the cornea in extraction of cataract. Twenty years ago, Dr Fiddes said, operation in these cases was deprecated, as it was supposed that there was generally other disease, as of the heart, but he had recently operated on a good many, and with the happiest results.

Mr. Thompson then referred to a case in which he had operated at University College Hospital. (For a report of the case see this Journal for January 19 and April 6, 1861). The patient recovered well; was in good health; was able to earn her own living. Previously she had been an almost constant inmate of the workhouse.

Mr. Spencer Wells exhibited a specimen of

ADENOMA OF THE OVARY,

which, he said, he thought the most appropriate designation which occurred to him, although it might be called fibro-epithelioma, or alveolar adenoid tumour. It is identical in structure with the adenoid growths first described in connexion with the mammary gland; and it was very interesting that it should now be found in connexion with the ovary. He had not seen a similar growth in the ovary before, nor had he found it described by any author. A drawing of Dr. Hughes Bennett's, of the structure of chronic mammary tumour, might have been taken from one of the sections shown to the Society. The tumour was removed, on the 3rd of last September, from a single lady, about 50 years of age, who recovered perfectly after the operation. It consisted in great part of an ordinary multilocular cyst; but one large cyst was filled with semi-solid matter, which, at first sight, looked exactly like soft cancer; but after hardening in spirit, and examining thin sections, the true character was made out; and it was seen that the surface of the growth was fringed with papilliform villi, its substance showing in vertical sections a delicate fibrous stroma, forming round or oval alveoli. These alveoli are lined with densely-grouped epithelial cells, forming a continuous zone, which encloses an area loosely packed with cellular elements of similar form. On the margins of most sections the contents of the alveoli are frequently seen to protrude, like papillæ, through ruptured portions of the fibrous septa; or the lining zone of the alveolus has become liberated and divided, so as to assume the appearance of a long cylindrical band or column of epithelial cells. The tumour, therefore, belongs distinctly to the class of fibro-epithelial growths, and, from the folliculoid character of its alveoli, would, Mr. Wells thought, be most appropriately classed as adenoma. This specimen had been preserved in a solution of carbolic acid, which Mr. Wells had found a very cheap and excellent fluid for preserving animal structures.

Mr. Spencer Wells also exhibited

TWO OVARIAN TUMOURS REMOVED BY OVARIOTOMY.

One was removed the day before the meeting from a patient, 56 years of age, who was going on remarkably well. It was large, one cyst having contained twenty-six pints of fluid. It did not differ in any way from the ordinary compound cysts of the ovary. The other tumour was the smallest Mr. Wells had yet removed. It had only contained seven pints of fluid. It was removed eight days before the meeting, and the patient, 24 years of age, was convalescent. Mr. Wells remarked, that this case was a striking answer to the common belief that ovariotomy was not to be performed until a patient was broken down in health by long-continuance of disease. In this, as in every other disease, he believed that the better the general health of the patient, the more likely was she to recover from any operation. To show that the dread of ovariotomy was unduly great, Mr. Wells mentioned that the last nine cases he had operated on had all recovered.

The President said that it must be acknowledged that the surgery of ovarian disease had advanced very much during the last twenty years. What was once considered to be hopeless was now frequently successful. It must be admitted, too, that Surgeons in this country were much in advance of those on the Continent in the surgery of this disease.

Dr. Broadbent then showed a specimen of

MEDULLARY DISEASE OF THE OCCIPITAL BONE.

The subject of the case, a man 60 years of age, had been under care as an out-patient for some time for supposed necrosis. On admission into the Hospital, Mr. Coulson, finding a fluctuating swelling, punctured it, and let out what appeared to be pus. Several pieces of bone came away during several weeks. Subsequently he had an attack of erysipelas of the head, attended by great swelling. When this subsided, a fungous growth appeared from the wound, and there was considerable hæmorrhage. From this the man gradually sank. He had had no cerebral symptoms, except delirium, shortly before death, and the coma, in which condition he died. It was found that the brain and the dura mater were both healthy. The disease had originated in the diploe, and had destroyed part of both tables. In the lungs were several small masses of secondary deposits.

Mr. Coulson remarked on the rarity of cancer of bone, and especially of cancer of the bones of the cranium.

Dr. Wilks then showed

WAX MODELS OF DISEASE OF THE HANDS PRODUCED BY POST-MORTEM EXAMINATIONS—"VERRUCA NECROGENICA."

The patient, a young man, had been employed in the post-mortem-room. The models illustrated the peculiar affection of the skin produced by the acrid fluids of the dead body. The knuckles of both hands had upon them brown, circular, raised patches of morbid epithelium, giving the appearance somewhat of epithelial cancer. The chronic and obstinate nature of these warty excrescences was most remarkable, for, if removed or portions be picked off, they again grow, and remained for years. Dr. Wilks had, on more than one occasion, recognised this disease in strangers, and suggested its cause, for which reason he believed it to be peculiar and characteristic; at least, he knew of no other irritants which produced exactly the same effect. There was no name already in use which was strictly applicable to it, since epithelioma, lepra, etc., were already in use for definite affections; he had, therefore, simply styled it warty or *verruca necrogenica*.

Mr. Spencer Wells asked if the disease was not the same as that known as the Anatomical Tubercle of Pinel. He had seen it in several persons, but had only once observed it in any one out of the Profession. This was in a clergyman who was fond of bird-stuffing.

Dr. Wilks had searched many works for an account of the disease, and not being able to find any account of it, had given it the name of Verruca Necrogenica.

Dr. Bristowe said that he had had it two years, and had watched it closely. At first it was a small pustule, which was covered by a scab, consisting of epithelium with little conical processes. It never contained any nested cells. At first he applied to it mild caustics, as nitrate of silver, but these only made it more irritable. He, therefore, destroyed it by one free application of the acid nitrate of mercury.

Dr. Peacock said that when in Edinburgh he was troubled with a similar affection. He agreed with Dr. Bristowe that mild caustics only made matters worse. After a few years it disappeared. At the first he had several boils, but one of them never sloughed, and went on to the state mentioned.

Dr. Harley said that last year he was consulted by a man whose duty it had been for many years to assist in making post-mortem examinations at University College Hospital. At the time when he saw him, however, he was acting as porter. The hands were covered by tubercles. On scraping them and putting the scrapings under the microscope, he found great hypertrophy of the epidermis. He did not think that the disease extended to the true skin. He advised the application of nitrate of silver, and this was followed by some benefit during its use.

Dr. Wilks said that he supposed all were agreed as to its pathology—that it was an affection of the epidermis only. In his own case he had applied the tincture of iodine with benefit.

The President said that some years ago he was consulted by a Medical man for a similar affection. The application of the strong tincture of iodine cured it.

Dr. Crisp said he believed that, if pathologists would oil their hands before they made their examinations, they would not suffer from such affections.

Dr. Bristowe said that he had always oiled his hands before making post-mortem examinations.

Mr. William Adams doubted whether the disease arose simply from the direct action of secretions and other fluids on the healthy skin at post-mortem examinations. It was clear that it was found in very few Medical men. He thought that many of those who had it must have previously had cracks or fissures, and that they had not taken sufficient care to protect them. For twelve years he had been Pathologist at St. Thomas's Hospital, and had never suffered from it.

Dr. Gibbon said that the disease generally attacked the two first joints of the fingers, and hence might be due to friction. If from cracks or fissures, the back of the hand would be the place for it.

Dr. Wilks said that the nearest approach to the disease was the condition of the knuckles in cases of severe chorea. This favoured the idea that it might be partly due to friction.

Dr. Wilks then showed a

SUPRA-RENAL CAPSULE FROM A PATIENT WHO DIED OF MORBUS ADDISONII.

This specimen of disease of the supra-renal capsules was sent to Dr. Wilks by Mr. Truman, of the Nottingham Dispensary, the patient having been under the care of Mr. Marshall Hall Higginbottom. When first seen he was 26 years of age, complained of excessive weakness and want of energy, and there was a slight yellowish tinge on his countenance. He gradually lost flesh and strength until he became confined to his bed; he then underwent a thorough examination, and no disease could be found in his body. The skin gradually darkened, and the only thing he ever complained of was an aching, dull pain in the loins. The weakness increased, and towards the close there was vomiting. On post-mortem examination, the skin was observed to be universally discoloured, of a yellowish-brown hue, and more markedly so on the abdomen; but there were no distinct patches of melasma. All the organs were healthy with the exception of the supra-renal capsules; these were twice the natural size, and, on section, seemed to be densely infiltrated with masses of yellow tubercle.

Dr. Peacock then showed a specimen of

DIAPHRAGMATIC HERNIA.

The specimen was removed from the body of a man 50 years of age, who was admitted into St. Thomas's Hospital, under Dr. Peacock, on May 17, labouring under the usual symptoms of typhus of seven days' duration. He was greatly prostrated, and had predominant cerebral disturbance, pneumonia, and diarrhœa. He died on the 21st, or on the twelfth day of the disease. On examination, the body presented the usual appearances after typhus; but the remarkable feature of the case was, that the stomach, spleen, pancreas, nearly the whole of the small intestines, and a large portion of the transverse colon, were lodged in the left pleural cavity, this lung being compressed and displaced to the upper and posterior part of the cavity, and attached to the parietes by old and loose cellular attachments, and the heart somewhat displaced to the right side. The viscera had escaped from the abdomen by an aperture, with smooth edges, in the left side of the tendinous portion of the diaphragm, so large as readily to admit the hand. No satisfactory history could be

obtained, but the man had lived for two and a-half years in the same lodgings, and during that time had been very intemperate; used to complain of pain in the left side of the abdomen, and was very short-breathed. He, however, followed his work as a porter up to the commencement of his attack of fever. It appeared that some years before he had been crushed between the buffers of two railway carriages, and Dr. Peacock thought that the aperture in the diaphragm had probably then been produced, and that the condition was, therefore, traumatic, not the result of malformation.

Mr. Barwell wished to know the condition of the peritoneum and pleura, and if greater resonance of the left side of the chest had been observed?

Dr. Peacock said that he considered the serous membranes had been cut through at the opening. The patient, when he saw him, had pneumonia, and hence the chest was dull.

Dr. Crisp said that rupture of the diaphragm was very common in horses. He was one day out hunting on a thorough-bred and vicious horse, and, as he rode him home, he appeared ill. Next day, a veterinary surgeon administered to the animal thirty drops of croton oil. The horse died suddenly, in convulsions. A very large opening was found in the diaphragm. There was probably at first but a small rupture, and the croton oil probably increased its size. A great part of the contents of the abdomen were found in the thorax.

Dr. Wilks said that he had seen two or three cases, and in all of them there was intense thirst. One man, the nurse said, drank gallons of water. He had seen the report of a case by Dr. Fraser, in which thirst had been a very urgent symptom.

Dr. Harley then showed a

MEDICAL POCKET CASE,

which had been sent to him by Dr. De Luna, of Madrid. It was intended to enable the Physician to examine quickly and easily morbid secretions. Dr. Harley then showed the various bottles and test papers, and explained the way in which they were to be used.

Mr. Bryant exhibited a specimen of

DISLOCATION OF THE FOOT BACKWARDS FROM THE ASTRAGALUS, WITH FRACTURE OF THE OS CALCIS, AND DISLOCATION OF THE PIECE FORWARDS AND UPWARDS.

At the time of the accident he was led to regard the case as one of dislocation of the astragalus forwards. It occurred in a young man, aged 24, an engineer upon a railway. The injury was caused by his foot becoming wedged between the spring and step of an engine, and the body falling outwards, the whole force being consequently directed upon the os calcis. In front of, and beneath the external malleolus, was a bony projection, which was mistaken for the head of the astragalus; but all the soft parts were so irreparably injured that nothing but amputation appeared justifiable. The nature of the accident was only made out upon its subsequent dissection. The anterior fractured portion of the calcis was completely enucleated from its position, and was found resting upon the upper surface of the cuboid. The head of the astragalus was projecting also on the outer side of the foot, between the tendons, the remainder of the foot being dislocated backwards, the articulating surface of the calcis with the astragalus being clearly visible behind the malleoli. The astragalus maintained its natural position, its lower articulating surface being visible in front. The extreme end of the fibula was also fractured.

Mr. Spencer Wells asked if amputation at the ankle joint would not have been admissible?

Mr. Bryant said that the injury to the foot was so extensive that it would have been impossible to obtain a flap to cover the end of the bone.

Another horrible murder has been perpetrated at Ullingswick, in Herefordshire. The body of a young girl, a farmer's servant, was found on Monday last in an orchard, in a condition which admits of no doubt that she had been violated and murdered. Death appears to have resulted from strangulation. The riband of her bonnet had been tightened round the neck, which showed the marks of the ligature, and the mouth was full of blood. One of the suspected persons is, as usual, a returned convict.

OBITUARY.

DECEASE OF SIR BENJAMIN COLLINS BRODIE, BART.

It is with sincere grief that we announce to our readers the decease of Sir Benjamin Brodie. His health had long been failing, and for some few days it was evident that his end was fast approaching His valuable life was brought to a close on Tuesday, the 21st inst., with as little suffering as was possible under the circumstances of the case. To the last, his mind was intensely interested in everything that concerned the honour and welfare of the Profession, and filled with affectionate remembrance of his old colleagues and friends.

We will not do Sir Benjamin's memory the injustice of attempting a memoir or *éloge* in the few hours which must suffice for the preparation of this number of the *Medical Times and Gazette*. Next week we shall present our readers with a full biography. Yet it is difficult to refrain from giving expression to a few of the abundant reminiscences of one who was so universally known and admired. We suppose that there is scarcely a Practitioner in England, of ten years' standing, who has not enjoyed the privilege of consultation with Sir Benjamin. We believe that if a letter or prescription in his handwriting were shown to any Medical Practitioner or Dispensing Chemist in the United Kingdom, or any one of the Colonies, it would be recognised. That small, active frame, that keen glance, resolute mouth, and open, unaffected bearing, will rise before many a mind's eye, when the removal of this great man is made known. It would be difficult to conceive of any man who, in person, speech, writing, or deed, gave greater evidence of thoroughness, truth, and sobriety, and of the absence of everything glaring and ostentatious. Some thought him blunt, short, and "off-hand;" so he was; but he was never unkind; and there was, in his plain, sober manner and speech, that which the sick man in his distress, and the Practitioner in *his* distress, looked to with infinitely greater comfort, than to the affectedly bland and oily words of sympathy or compliment which characterise some men who regard popularity more than sincerity. We speak of the Practitioner in *his* distress. Who is there who, in his early struggles, has not met with cases of obscure disease, which have been referred to some Consulting Practitioner who, by his opinion, or even gesture, might ruin a man's reputation? In such cases Sir B. Brodie was invaluable. His own experience was so large, that he could not only clear up the ambiguities of any case, but justify the reasonable doubts of the Practitioner. His practice had, we believe, been enormous in the department which may be called "Medical Surgery,"—cases which custom assigns to the Surgeon, but which depend on aberrations of the constitution at large, and are relieved by medicines. No man ever had seen so great a variety of rare maladies, or rare combinations of them; and no man, in consultation, was ever so abundantly able to say—not "I think," or "I suppose,"—but "I have seen" such and such facts as resemble the case before us. This was well exemplified in the trial of Palmer, the poisoner. Owing to the conflicting blasts of opinion from the mouths of so many witnesses, who swore to what they thought likely or probable, the case began to lose its point, and the jury to waver. It was Sir Benjamin Brodie who brought the minds of Court and jury into the right direction, by saying—"In all my experience I have never seen such symptoms as Cooke died of, save from poison." But we cannot now write a full memoir, and will conclude this short announcement. Literature, Medicine, and Philosophy, were alike cultivated by Sir Benjamin with success. His reputation was universal. His example will live for generations, as that of a man who attained the highest honours, without stooping to pay a mean or servile compliment to any mortal.

MEDICAL NEWS.

University of St. Andrews.—Honour Examination.—The following gentlemen, after having obtained the Degree of M.D. at the recent examination, offered themselves as Candidates for Honours. The result of the examination, which included—1. The Clinical Examination of Patients; 2. Physiognomical and Physical Diagnosis; 3. The Micro-

scopical Examination of Urinary Sediments; and 4. The Examination of Morbid Specimens,—was as follows:—

First Class.—Frederick Davies and Robert Meadows, London.

Second Class.—John B. Muloch, Dublin, and William M. Whitmarsh, Chippenham—Equal; Julian L. Vanderstratten, Ceylon; and Robert E. Huntley, Farron.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows, held on Wednesday, October 22, the following gentlemen, having undergone the necessary Examination, were duly admitted to practise Physic as Licentiates of the College:—

Thomas Aspinall, Over Darwen; Edward Calthrop, Deeping St Nicholas, Spalding; Fred. Carter, London Hospital; Edward Chandler, 7, Chesterplace, Kenningtou-cross; William Cooper, Bristol; John James Walker, Gisburne, Leeds; George Kerswill, Looe, Cornwall; John Valentine Laverick, Henderwell, Yorkshire; James Foster Moore, Bradford, Yorkshire; John Pethall, Bengal Medical Service; Herbert Smith Renshaw, Ashton-on-Mersey; Montague Thomas, Windsor; and Fred. Woodman, Isleworth.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 16, 1862:—

George Albert Miskin, St. Thomas's Hospital; William Cribb, 2, Chambers-terrace, Kentish-town; Joshua Wm. Renshaw, Ash-house, Stretford; Edwin Thos. Griffiths, 100, Digbeth, Birmingham; Henry Walton, West Auckland; Reuben Thos. Warn, Plymouth; James Heuthorn Todd Connor, King's College; and Haynes Sparrow Robinson, St. Bartholomew's.

APPOINTMENTS.

APPLIN.—A. Oliver Applin, Assistant-Surgeon 68th Regiment L.I., has been appointed to the Medical charge of the *Coromandel*, Calcutta Squadron, *vice* Assistant-Surgeon Lee, relieved.

BORROWS.—Robert Borrows, M.D. Univ. St. And., L.F.P.S. Glasg., Assistant-Surgeon R.N., has been promoted to be Surgeon.

BUCKELL.—Robert Kemp Buckell, Assistant-Surgeon Bengal Medical Establishment, has been promoted to Surgeon, *vice* T. Henry Batson, M.R.C.S. Eng., Surgeon-Major, retired.

BURTON.—John Burton, M.D. Univ. Edin., L.R.C.S. Edin., Medical Officer of the Walsall Union Workhouse, has also been appointed Medical Officer and Public Vaccinator for the Borough District of that Union, *vice* Edwd. Joseph Marshall, M.R.C.S. Eng. and L.M., L.S.A. Lond., deceased.

CLAPP.—William Prideaux Clapp, M.R.C.S. Eng., Acting Assistant-Surgeon R. N., October 8, 1861, has been appointed to the *Tribune*.

CRICKMAY.—Edward Crickmay, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Dilwyn District of the Weobley Union, Herefordshire, *vice* George Pearse, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., resigned.

DALE.—Mr. H. S. Dale, has been appointed Dispenser to the Windsor and Eton Royal Dispensary, *vice* Mr. J. H. Gibbons, resigned.

EDNEY.—William Edney, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N., has been promoted to be Surgeon.

FITZGERALD.—Assistant-Surgeon A. Fitzgerald, Officiating Assistant-Surgeon of Ejah, North West Provinces, East Indies, has been placed in charge of the Jail of that District, and invested with the powers of a Magistrate to be exercised within the precincts of the Jail.

FRANCIS.—William Francis, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the 3rd District of the Yeovil Union, Somersetshire, *vice* Robert Woods, L.R.C.S. Irel., L.S.A. Lond., resigned.

GOVAN.—G. M. Govan, M.D., has been appointed Civil Assistant-Surgeon of Ranchee.

GRAHAM.—Fitzgibbon Lockwood Graham, L.R.C.S. Irel., Assistant-Surgeon R.N., September 11, 1856, has been appointed to the *Trafalgar*.

HARRIS.—William Harris, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the House of Correction, Wandsworth, Surrey, *vice* John Ash, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., resigned.

HENDERSON.—William Henderson, M.D. Univ. Edin., L.R.C.S. Edin., has been re-appointed a Medical Examiner in the University of Aberdeen.

HERRING.—George Herring, L.F.P.S. Glasg., L.S.A. Lond., has been appointed House Surgeon to the Clayton Hospital and Wakefield General Dispensary.

HYSLOP.—James Macadam Hyslop, M.D., Senior Assistant-Surgeon on the Bombay Establishment, has been promoted to Surgeon, *vice* John Deas, Surgeon-Major, deceased.

JACKSON.—Gordon Jackson, L.R.C.S. Irel., Assistant-Surgeon R.N., July 1, 1854, has been appointed to the *Cornwallis*.

JENKYNS.—Charles Jenkyns, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer to the Pelham District of the Bishop Stortford Union, Herts, *vice* William Henry Moor, M.R.C.S. Eng., L.S.A. Lond., resigned.

JOHNSON.—Osborne Johnson, M.R.C.S. Eng., and L.M., L.S.A. Lond., Medical Officer of the Bassingham District, has been temporarily appointed Medical Officer and Public Vaccinator for the Broughton District of the Newark Union, Nottinghamshire, *vice* William Deamer, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., and L.M., L.S.A. Lond., resigned.

JORDAN.—Myles Joseph Jordan, M.R.C.S. Eng., Lic. Mid. K.Q.C.P. Irel., has been elected Medical Officer and Public Vaccinator for the Balla Dispensary District, of the Castlebar Union, Co. Mayo, *vice* John Polton Barnett, M.R.C.S. Eng., deceased.

KERR.—David Kerr, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., has been re-appointed a Medical Examiner in the University of Aberdeen.

LATHAM.—P. W. Latham, M.B. and M.A. Camb. 1861, M.R.C.P. (exam.) 1861, Fellow of Downing College, Cambridge, and Assistant-Physician to the Westminster Hospital, has been appointed one of the Examiners for Medical Degrees at the University of Cambridge during the ensuing year.

LAW.—John Law, M.R.C.S. Eng., Assistant-Surgeon, has been appointed to the Medical Charge of the Bhundara District, East Indies.

LAWRENSON.—George R. Lawrenson, Acting Assistant-Surgeon R.N., August 4, 1862, has been appointed to the *Leopard*.

MACCARTHY.—Charles Denis MacCarthy, L.R.C.S. Irel., Assistant-Surgeon R.N., has been promoted to Surgeon.

MINNOCH.—Alexander Minnoch, L.R.C.S. Edin., Assistant-Surgeon R.N., April 21, 1859, has been appointed to the *Fisguard*, additional.

MOOR.—William Henry Moor, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer to the South East District of the Buntingford Union, Herts, *vice* William Hugh Aldersey, F.R.C.S. Eng. (exam.), and L.M., L.S.A., Lond., M.B. Univ. Lond., resigned.

NINNIS.—Belgrave Ninnis, M.D. Univ. St. And., M.R.C.S. Eng. and L.M., Acting Assistant-Surgeon R.N., August 1, 1861, has been appointed to the *Victory*.

TAYLOR.—Assistant-Surgeon A. Taylor has been appointed to the Civil Medical charge of the Hissar District, Punjaub.

THOMSON.—James Thomson, Assistant-Surgeon R.N., November 13, 1854, has been appointed to the Woolwich Division of the Royal Marines.

WARDEN.—Thomas Warden, M.D. Univ. Edin., L.R.C.S. Edin., Assistant-Surgeon R.N., September 8, 1860, has been appointed to the *Psyche*.

WILLAN.—Reginald Moore Willan, M.R.C.S. Eng., L.S.A. Lond., has been re-appointed Medical Officer for the Clifton District in the Newark Union, Nottinghamshire.

WILLIAMSON.—William Williamson, M.D. Univ. Edin., L.R.C.S. Edin., has been appointed a Medical Examiner in the University of Aberdeen, *vice* George Jaffray Nicol, M.D. Univ. King's Coll. Aberb., M.R.C.S. Eng., deceased.

WILSON.—David Wilson, L.R.C.S. Edin., Assistant-Surgeon R.N., has been promoted to be Surgeon.

WOODMAN.—John Woodman, M.R.C.S. Eng., and L.M., L.S.A. Lond., has been elected Surgeon to the Exeter Dispensary, *vice* Charles Knighton Webb, M.R.C.S. Eng., L.S.A. Lond., deceased.

WOOLHOUSE.—Assistant-Surgeon G. Woolhouse, has been appointed to the Civil Medical charge of Rohtuk, Punjaub.

DEATHS.

ARMSTRONG.—October 16, at No. 19, Clarence-street, Edinburgh, John Armstrong, Surgeon R.N., seniority August 17, 1815, on the retired list.

BRODIE.—October 21, Sir Benjamin Collins Brodie, Bart., of Broome Park, Betchworth, Surrey, F.R.C.S. Eng., D.C.L., F.R.S., Serjeant-Surgeon to the Queen, aged 79.

DEAS.—September 9, of chronic diarrhœa, at Neemuch, John Deas, Surgeon-Major, Bombay Army. He had served in the Central India campaign, and had otherwise seen much service. He had received the highest commendations of his superiors, and a medal and clasp for the bombardment and capture of the forts of Mohumrah.

FAIRBAIRN.—October 16, Peter Fairbairn, sen., of No. 53, George-square, Edinburgh, M.D. Univ. Edin., F.R.C.P. Edin., Surgeon to the House of Refuge, Edinburgh, formerly Surgeon R.N.

HARRISON.—October 16, at Hillingdon End, Uxbridge, James Harrison, of the Bengal Medical Service, M.D., F.R.C.S. Eng., aged 42.

KEON.—October 14, at Drumshambo, Patrick Henry Keon, L.R.C.S. Edin., Medical Officer to the Drumshambo Dispensary District, Carrick-on-Shannon Union, Co. Leitrim, aged 28.

LISTER.—October 16, at Somers-place, Hyde-park, Nathaniel Lister, M.D., aged 59.

MCQUAT.—October 18, suddenly, at Acrehill House, Glasgow, John McQuat, L.F.P.S. Glasg.

WILKINS.—October 14, of paralysis, at Harold's Cross, Dublin, William Mortimer Wilkins, Army-Surgeon, late of the 49th Regiment, aged 70.

LONDON GAZETTE.

October 17.

24TH LANCASHIRE RIFLE VOLUNTEER CORPS.—William Peacock Wood, Esq., to be Surgeon; dated September 27, 1862.

40TH KENT RIFLE VOLUNTEER CORPS.—John Penkivil, Gent., to be Honorary Assistant-Surgeon; dated October 7, 1862.

October 21.

14TH FOOT.—Staff Assistant-Surgeon William Cherry to be Assistant-Surgeon, *vice* Jenkins, who exchanges; dated October 21, 1862.

MEDICAL DEPARTMENT.—Staff Assistant-Surgeon Joseph Johnston, M.D., from half-pay to be Staff Assistant-Surgeon, *vice* Sharp, whose services have been dispensed with; dated October 21, 1862.

Assistant-Surgeon William Henry Jenkins, from 14th Foot, to be Staff Assistant-Surgeon, *vice* Cherry, who exchanges; dated October 21, 1862.

Robert William Hooper, M.D., to be Staff Assistant-Surgeon, *vice* Ward, placed upon half-pay; dated October 21, 1862.

2ND DEVONSHIRE RIFLE VOLUNTEERS.—John Henry Square May to be Assistant-Surgeon, *vice* Derry, resigned; dated October 6, 1862.

UNIVERSITY OF OXFORD.—The first examination for the degree of Bachelor of Medicine will commence on November 17. The next examination for the Radcliffe Travelling Fellowship will commence on January 26, 1863.

UNIVERSITY OF EDINBURGH.—On Monday, Dr. Douglas Maclagan, who was recently appointed to the chair of Medical

Jurisprudence and Police, in the room of the late Dr. Traill, and Mr. James Muirhead, advocate, Professor-elect of Civil Law, appointed in room of Mr. Swinton, retired, presented their commissions at a meeting of the Senatus Academicus, and were inducted into office in the usual form.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the annual meeting of the College, held, according to charter, on the 18th inst., St. Luke's day, Dr. Corrigan was re-elected President of the College for the ensuing year. Having been President since October, 1859, he thus enters on his fourth year of office. No former President, we believe, has ever filled the chair for more than three years consecutively.

ARMY MEDICAL DEPARTMENT.—The Royal Warrant of October, 1858, has become a dead letter. The following circular memorandum, which we have received from an Indian correspondent, is only one out of many instances of encroachment on the part of the executive authorities on the privileges and rights of the Medical Officers of the Army:—"No. 737, A.C., Inspector-General's Office, Army Head-quarters, Simla, August 4, 1862.—Circular Memo.—The Inspector-General has received the command of His Excellency the Commander-in-Chief to acquaint Medical Officers that it has been ruled that Regimental Surgeons are not to be mounted on any parade for inspection; they may, however, appear on horseback in the field. (Signed), W. Linton, M.D., Inspector-General of Her Majesty's Hospitals. To Dr. Prendergast, Deputy Inspector-General of Her Majesty's Hospitals, Calcutta."

THE COLLISION AT WINCHBOROUGH.—The eighteenth death from this fearful accident took place on Monday morning at the Edinburgh Infirmary. The Edinburgh and Glasgow Railway Company are likely to have to pay dearly for the mistake of the pointsman, Newton. The fall of the Company's 100*l.* stock in three days, represented an extinction of capital of above 100,000*l.* It is stated that the Company lately had an arrangement with the Accidental Death Insurance Company to cover them against claims arising from death or injury to passengers, but that the arrangement some time ago ceased. Mr. Hosie, it appears, was insured for 25,000*l.*, and in his case it is expected there will be three actions raised against the company—one by the representatives, another by the employers of the deceased, and a third by the insurance company for repayment.

ALLEGED SECRET POISONING IN CEYLON.—The skilfulness of the Cingalese in their preparation of poisons, and their addiction to using them, are unfortunately notorious traits in the character of the rural population. Amongst these preparations, the one which above all others excites the utmost dread, from the number of murders attributed to its agency, is the potent kabara-tel—a term which Europeans sometimes corrupt into cobra-tel, implying that the venom is obtained from the hooded snake; whereas it professes to be extracted from the kabara-goya. Such is the bad renown of this formidable poison, that an individual suspected of having it in his possession is cautiously shunned by his neighbours. Those especially who are on doubtful terms with him, suspect their own servants, lest they should be suborned to mix kabara-tel in the curry. So subtle is the virus supposed to be, that one method of administering it is to introduce it within the midrib of a leaf of betel, and close the orifice with chunan; and, as it is an habitual act of courtesy for one Cingalese on meeting another to offer the compliment of a betel leaf, which it would be rudeness to refuse, facilities are thus afforded for presenting the concealed drug. It is curious that to this latent suspicion has been traced the origin of a custom universal among the natives, of nipping off with the thumb-nail the thick end of the stem before chewing the betel. In the preparation of this mysterious compound, the unfortunate kabara-goya is forced to take a painfully-prominent part. The receipt, as written down by a Kandyan, was sent to me from Kornegalle, by Mr. Morris, the Civil Officer of that district; and in dramatic arrangement it far outdoes the cauldron of Macbeth's witches. The ingredients are extracted from venomous snakes, the cobra di capello, the carawilla, and the tic-polonga, by making incisions in the head of these reptiles, and suspending them over a chattie to collect the poison as it flows. To this arsenic and other drugs are added, and the whole is "boiled in a human skull, with the aid of three kabara-goyas, which are tied on three sides of the fire, with their heads directed towards it, and tormented by whips to make them hiss, so that the fire may blaze. The froth from their lips is then added to the boiling mixture, and so soon as an oily scum rises to the surface, the kabara-tel is complete." It is obvious that arsenic is the main ingredient in the poison; and Mr. Morris reported to me that the mode of preparing it, described above, was actually practised in his district. This account was transmitted by him *apropos* to the murder of a Mohatal (a) and his wife, which had been committed with the kabara-tel, and was then under investigation. Before commencing the operation of preparing the poison, a cock has to be sacrificed to the yakhos, or demons.—*Sir J. Emerson Tennent's Ceylon.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Jupiter Tonans.—Downes' Manual, or Galloway's First Step, are good books to commence with.

S. W.—The whole subject of slow poisoning was exhaustively treated in our Number for September 8, 1855. You will find there references to the Roman, Mediæval, Neapolitan, French, and English beliefs or superstitions on the subject. All the mystical and horrible accompaniments of the preparation of poisons and spells, the "eye of newt and limb of toad," etc., etc., were mere nonsense. It was the arsenic which was relied on. Look at an extract from Sir E. Tennent's work on Ceylon in our present Number.

The Ormskirk Case.—The word *undergraduate* is a known and recognised appellation of persons *in statu pupillari*. It expresses a fact, and is in common use. But if a freshman at Oxford were to write a formal document, and to sign himself "Sub M.A.," or "Sub B.A.," or "Sub D.D.," on the ground that he is on the road to those Degrees, though he has not attained them, we suspect that he would be ridiculed or punished, as the case may be, for inventing a new designation, which might seem to claim for him a *status* he has no right to. The controversy may now rest. The Medical men of Ormskirk have vindicated their position, and shown that they have law and fact on their side. If the village parsons, who take the other side, are their superiors in lubricity and chicane, it cannot be helped.

The last number of the *Social Science Review* contains an able article on "Poison Panics and Poison-mongers." The writer expresses himself in no measured terms of indignation at the attempts which are made to alarm the public mind. We subjoin a quotation:—

"At this time, for example, it is becoming a practice for men in suspicious cases, where some medicine they have supplied does not produce certain anticipated effects, to swear that the medicine *ought* to have produced the said effects, and, because it did not, therefore, to swear further, that suspicion of a poison acting against the medicine is justifiable. Nay, have we not had, at least, one miserable example, in which this conclusion was sworn to by men, who, at the time when they were prescribing *the* remedies, were utterly and confessedly ignorant of the cause of the symptoms they were presuming to treat; ignorant, until death took their patient, and the anatomist laid before them a fact which was the keystone of the disorder, and to which previously they were utterly and stupidly blinded?"

Chelsea.—The roots and leaves of the *Saracenia purpurea*, or Indian pitcher-plant, a native of Nova Scotia, have been long used by certain tribes of North American Indians as a remedy for small-pox. The real or supposed virtues of the plant are at the present time attracting great attention in Canada and the United States. A writer in the American *Medical Times* states that a patient suffering from small-pox in any of its forms, will be relieved by the decoction of the plant within twelve hours after it has been taken:—

"However alarming and numerous the eruptions, or confluent and frightful they may be, the peculiar action of the medicine is such that very seldom is a scar left to tell the story of the disease. If either vaccine or variolous matter is washed with the infusion of the *Saracenia*, they are deprived of their contagious properties. So mild is the medicine to the taste that it may be largely mixed with tea and coffee, and given to connoisseurs in these beverages to drink, without being aware of the admixture. The medicine has been successfully tried in the Hospitals of Nova Scotia, and its use will be continued."

The root is to be obtained from Savory and Moore; and we hear that its anti-varioloid properties are being investigated at the Small-pox Hospital, by a Committee of the Epidemiological Society.

The Aye-aye, Myspithecus Bl. (Rat Monkey).—We consider Professor Owen's paper, read at the late meeting of the British Association, on this remarkable little Madagascar animal, to be well worthy of a notice in any periodical, and a more extended and able one than we can indite. The Professor, working in the spirit in which Harvey did, and which led to his great discovery, or Hunter, or Cuvier, in fact, all the great discoverers in anatomy from Galen downwards—supposing design in every peculiar structure, and tracing also evidences of the same throughout in the particularities of animals—produced a neat and, we think, beautiful paper on the anatomy and form of this little creature, referring the large eyes to its nocturnal habits, its expanded and sensitive ears to their use in listening for the boring of grubs within the branches of

(a) A native head-man of low rank.

trees, enormous chisel-like teeth that it may dig down to the grub-chambers, and the middle finger, long, attenuated, and probe-like, and with a sharp hook at the end, in order that it may insert it into the burrows and draw out the grubs. Mr. Bartlett followed with a paper on the same animal as seen in captivity, and he did not believe it to live on caterpillars at all, but rather on bark—in fact, it refused the former. Mr. Huxley followed, and made some able observations (whether one agrees with them or not), saying that the plan of fancying design in structure, and following the idea out, was one of the most dangerous ways of studying anatomy, as evinced by the facts brought forward in the second paper. However, further information was brought forward by other gentlemen who rose, showing that the Aye-aye does eat grubs, as Sonnerat, its discoverer, supposed, but that it is an epicure in them, and capricious, just as may be seen in some domestic animals, who will not always take the same or similar food when offered to them as they have a predilection for in the wild state. We are inclined to think the Professor made his case out in this short but interesting paper; and without wishing to argue with those anatomists who follow a different plan of investigation, and see no design in any structure, but only modifications by external agents, habits, law of selection, etc., we are inclined to believe that the former plan embraces a true principle, one which should be borne in mind constantly in the class of studies which occupy anatomists and physiologists.—*From a Correspondent.*

The following will be found to be a tolerably exhaustive bibliography of the more modern literature bearing upon the Differences of Cerebral Structures and Cerebellar Relations in Man and in the Apes. The order of time has been followed in the list:—

Tiedemann, Icones Cerebri Simiarum. 1821.
Serres, Anatomie du Cerveau. 1826.
Leuret, Anatomie Comparée du Systeme Nerveux. 1826. Tom. i.
Tiedemann, Zeitschrift für Physiologie. 1826.
Tiedemann, Philosophical Transactions. 1836.
Huschke, Hirn Schädel und Seele. Jena, 1854.
Gratiolet, Memoire sur les Plis Cerebraux. Paris, 1854.
M. Isidore Geoffroy St. Hilaire, Hist. Naturelle. Tom, ii., pt. 1. 1856.
Professor Owen, On the Classification of the Mammalia, Linnean Society's Proceedings. 1857.
Gratiolet, Anatomie Comparée du Systeme Nerveux. Paris. Tom. ii. 1857.
Professor Owen, Reade's Lecture. 1859.
Gratiolet, Comptes-Rendus. 1860. P. 803.
Gratiolet, Memoires de la Société d'Anthropologie. 1860. Tom. i., p. 65.
Professor Huxley, Natural History Review. January, 1861.
Professor Owen, Athenæum. March 23, 1861.
Professor Rolleston, Natural History Review. April 1, 1861.
Professor Huxley, Athenæum. April 13, 1861.
Professor Huxley, Proceedings, Zoological Society. June 11, 1861.
W. H. Flower, Esq., Proceedings, Royal Society. June 20, 1861.
Professor Owen, Annals and Magazine of Natural History. June, 1861.
Professor Marsball, Natural History Review. July, 1861.
Professors Schroeder Van der Kolk and Vrolik, Natural History Review. January 1, 1861.
W. H. Flower, Esq., Proceedings, Royal Society. January 9, 1862. And in the last issue of the Philosophical Transactions.
Professor Rolleston, Medical Times and Gazette. February 22 and March 15.
William Turner, Esq., Proceedings, Royal Society of Edinburgh. March 3, 1862.
Vorstudien, von Rudolph Wagner. 1860-62.

APPRENTICESHIP.

E. C. B., Another Father, X. Z., and King's Lynn.—It is a clinching demonstration of the absurdity of the old system of beginning Medical study by attendance on Practice, that the unlucky apprentice who begins with Practice when he should have been studying language, mathematics, and the *art of learning*, finds himself in the hands of a *grinder*, vainly endeavouring to learn his elements, and to get the art of answering questions in decent English, when he should be beginning *Practice*. The students who *grind*, are those whose previous education in language, mathematics, and natural philosophy does not enable them to profit by the public teaching of the schools. Grinders are the ablest teachers; and if a man wants the aid of a *grinder* or tutor, he had better have one at 17 than at 22. The Junior Medical College of the Messrs. Power, if provided with bones, and chemical and philosophical apparatus, and with liberty to attend classes at a neighbouring College, would be a very good introduction.

Errata.—The following errata exist in Professor Rolleston's letter of last week:—Column i., page 418, *for* "widely swerving" *read* "widely severing." Column i., page 419, *for* "the posterior cornu of the third lobe" *read* "the posterior cornu, or the third lobe." Column ii., page 419, hyphens and inverted commas have been omitted at the beginning of a remark of Professor Rolleston's, explaining who Gauss was, and intercollated into a quotation from Wagner. *Ibid., for* "last which Professor Owen exhibited" *read* "cast," etc. Column i., page 420, *for* "base half inch" *read* "bare half inch." *Ibid.*, the reference to M. Isidore G. St. Hilaire's work was omitted; it is "Tom. ii., 1, page 248."

THE RECENT GRADUATION LIST AT ST. ANDREWS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It is somewhat startling to see the number of names in the St. Andrews pass-list this week. 130 have received the diploma at this last examination.

One, perhaps, has no right to suppose that the examination has been less severe than usual, to conclude that, in consequence of the power to grant diplomas without residence expiring with this year, therefore the examiners are letting the men through wholesale; and yet, at the same time, this is the impression such enormous pass-lists will create on the Profession,—nay, in high quarters have already produced. It is very possible for the Court of Examiners, if they are too lenient, to damage the prospects of that University as respects its Medical celebrity, and very materially to lessen the value of the diplomas already issued. Even now it is very commonly said, "Oh, you can easily get the St. Andrews M.D. if you like to go up;" though this is not true, as many have found to their cost, whose faith in luck has been strengthened by presuming ignorance. Not long since as many as seventeen were rejected out of forty-one; and if this per-centage had been kept up we should have had more reason to respect the names in the present pass-list; for, after all, I believe in any given forty-one candidates you would, as a rule, find about the same average of Medical knowledge and fitness to pass the examinations.

In this week's impression of your valuable Journal, a third examination is announced for November. In the name of existing graduates of that University—in the name of all that is honourable in Medical degrees, I would ask the examiners to respect the value of our degrees; to preserve the high character of that ancient University; and to uphold the dignity of the position it should take as a future Medical School.—I am, &c.

M.D. ST. ANDREWS.

[We publish the papers, which show that the examination was a fair one We believe that one-fourth of the candidates who presented themselves were rejected.—ED.]

COMMUNICATIONS have been received from—

Mr. GARNER; Mr. J. Z. LAURENCE; Mr. JOHN ADAMS; Professor ROLLESTON; E. C. B.; ANOTHER FATHER; X. Z.; KING'S LYNN; KANNY LOLL DEY; ST. THOMAS'S; Dr. HUMPHREY; Mr. C. DE MORGAN; JUPITER TONANS; Dr. R. N. INGLE; Mr. H. LEE; Dr. DAY; Dr. P. W. LATHAM; Dr. COURTNEY.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 18, 1862.

BIRTHS.

Births of Boys, 944; Girls, 919; Total, 1863.
Average of 10 corresponding weeks, 1852-61, 1646·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	622	559	1181
Average of the ten years 1852-61	525·1	523·9	1054·0
Average corrected to increased population..	..	..	1159
Deaths of people above 90	..	..	5

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	3	14	4	3	4	9
North ..	618,210	3	16	19	6	8	9	12
Central ..	378,058	1	9	9	1	2	12	2
East	571,158	5	19	12	..	6	25	25
South ..	773,175	3	14	21	2	5	13	12
Total.. ..	2,803,989	12	61	75	13	24	63	60

APPOINTMENTS FOR THE WEEK.

October 25. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Clinical Discussion. Mr. Ernest Hart, "1. On a Recent Case of Popliteal Aneurism Cured by Flexion after Failure of Pressure; 2. On an Improved Tourniquet with Index, and a Case in which it was Employed."

27. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.

LOCK HOSPITAL, Dean-street, Soho, 1 p.m. Clinical Demonstrations and Operations.

28. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

29. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

30. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædie Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

31. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—Removal of Tumour from Upper Jaw; Removal of Tumour from Neck.

By Mr. Wood—Removal of Tumour from Upper Eyelid; Varicocele.

NEPENTHE, OR ANODYNE TINCTURE

(OBTAINED EXCLUSIVELY FROM OPIUM),

PREPARED ONLY BY FERRIS, TOWNSEND, LAMOTTE, AND BOORNE,

MANUFACTURING CHEMISTS AND WHOLESALE DRUGGISTS, BRISTOL.

MESSRS. FERRIS AND COMPANY take leave to direct the attention of the Medical Profession to a selection from various reports upon the use of this most valuable form of opium.

Nepenthe may be used with perfect safety in every case where an opiate is indicated; and from the peculiar process by which it is prepared, it is deprived of all constituents which render the tincture opii, and most other forms of opium, in numerous instances, wholly inadmissible.

Nepenthe is always of uniform strength, and, in this respect, possesses high advantage. It may be procured direct from the Manufacturers, Messrs. FERRIS and Co., Bristol, or through the leading Wholesale Druggists in London, and from most respectable Dispensing Chemists in Great Britain and Ireland.

Every bottle has a fac-simile of Messrs. Ferris and Company's Signature pasted over the Cork, to imitate which is forgery.

The Price to the Profession is 8s. per lb., and the dose the same as the Tincture Opii.

REPORT FROM F. PORTER SMITH, ESQ.

"I have pleasure in bearing testimony to the decided advantages possessed by Messrs. Ferris and Company's preparation of opium called Nepenthe over other preparations of that important drug. I have used it for several years in Cancer of the Uterus; continuing it, with *scarcely abated* advantage, as a sedative, in one such case for the long period of eighteen months, in doses, at the utmost, of half a drachm, which served the purpose to the end. I have used it in subcutaneous injection for Neuralgia without produeing any local irritation, such as abscess, &c. In the cases of unusually severe 'after-pains' in connexion with labour, I can strongly recommend and endorse its successful and satisfactory employment. I have never met with any unpleasant symptoms, such as sometimes occur in some constitutions after the administration of morphia, &c., during an extensive use of this valuable addition to that 'Practical Pharmacopœia' which waits for no 'imprimatur' from College or Council.

"F. PORTER SMITH, M.B. London, M.R.C.S., Associate of King's College, London.

"Leicester, March, 1862."

Fresh Reports will be published in the Medical Journals from time to time.

Pulvis Jacobi ver, Newbery's,

IS THE ORIGINAL & GENUINE, WAS ESTABLISHED A.D. 1746,

And is Preſcribed, with the greateſt ſucceſs, "by the higheſt authorities," for Fevers, Ague, Cerebral Congeſtion, Rheumatiſm, Chills, Influenza, &c. &c.

FRAS. NEWBERY & SONS, 45, ST. PAUL'S CHURCHYARD.

Prices for Diſpenſing—1 oz., 9s.; ¼ oz., 3s. 4d.

CHLORODYNE.

TRADE MARK REGISTERED 1858.

DR. J. COLLIS BROWNE, M.R.C.S.L., Ex-Army Medical Staff, after many years' study and experiment, succeeded in discovering, in 1846, a remedy which should possess the property of an *Anodyne, Sedative, Diaphoretic, Antispasmodic,* and *Astringent.* For this new remedial agent he was obliged to find a name, and *coined* the appellate "CHLORODYNE," a word unheard of and unknown until he introduced it, in 1856, for public use *through* J. T. DAVENPORT, PHARMACEUTIST, 33, GREAT RUSSELL-STREET, BLOOMSBURY-SQUARE, LONDON, *to whom he confided* THE RECIPE AND ITS MODE OF PREPARATION, *never having divulged or published the secret of its formula.*

CAUTION.

The great success attending the use of this extraordinary preparation has induced unprincipled parties to manufacture compounds in imitation, calling them after the same name. Medical Men are advised of this dishonourable proceeding, so that they may be guarded against the culpable practice of introducing substitutes in lieu of CHLORODYNE, causing thereby uncertainty of action in the treatment of the patient by the Physician, probable disaster to the sufferer, and deception in the preparation.

Each *genuine* bottle bears a red stamp, with the words "Dr. J. COLLIS BROWNE'S CHLORODYNE" in white letters.

To be obtained from all Wholesale Druggists.

Sole Manufacturer, J. T. DAVENPORT, Pharmaceutist,

WHOLESALE AND RETAIL DEPOT, 33, GREAT RUSSELL-STREET, BLOOMSBURY.

ORIGINAL LECTURES.

INTRODUCTORY CLINICAL LECTURE.

DELIVERED AT

The London Hospital,

By JOHN ADAMS.

The object of clinical lectures, gentlemen, is to give you such instruction as will enable you to understand the character and true nature of the cases you will meet with in the wards of the Hospital; to point out the treatment requisite for their cure; and to demonstrate to you the cause of death when this unfortunate result has occurred. With regard to this latter point, I need scarcely observe that such instruction is not strictly clinical, nor can we even during life point out at the bed-side everything concerning a patient whose case we may be considering. Thus, we cannot always get at the true history of a patient in the presence of the entire class, as there may be circumstances in connection with a case that it would be obviously improper to allude to before a large number of students, especially in cases where it is desirable to get at the domestic history and some hereditary tendencies; questions appertaining to these circumstances ought not to be alluded to openly. And I may tell you that, in regard to suspected syphilitic taint, to which I am now alluding, and other circumstances of delicate enquiry, we should gain nothing by open examination of a patient—nay, we may defeat our own ends in this manner, for patients are apt to deny a great many self-evident circumstances when openly examined.

Therefore, we direct the clinical clerk to get at the truth of such things when he is conducting his examination; and he can often, by gaining the confidence of his patient, gradually worm out everything which is required to be known. Now this, with some other circumstances to which I may now refer, points to us the importance of giving an occasional clinical lecture after the visit. True clinical teaching may be, of course, principally employed at the bed-side; but no prudent Surgeon would, before a patient, so far forget himself as to make any, even the most distant, allusion to the probable fatality of any disease, unless the question as to the probable chance of recovery were put by the patient himself, and a decisive answer required. I have witnessed in former years some rather rough modes of examining a patient, and I confess, sometimes, to err myself on this point, but I candidly confess that I never give pain to a patient in this manner without being sorry for it. It ought to be strictly avoided. In commencing this clinical course, I place myself, as near as possible, in your own position—as just commencing your studies here, and I would say, do not omit any opportunity of witnessing a case; for even as young men, and as persons ignorant of the true nature of most of the cases presented to your notice for the first time, you will find yourself gradually and imperceptibly habituated to them, and you will even, without clinical instruction, by your own unaided observation, begin to know at least something of a case. It is, undoubtedly, true, that a student may see a great deal in the wards of a Hospital, and know very little about what he has seen, nevertheless. It is in counteracting this very tendency that I am especially anxious to lend you my feeble assistance.

"Quæque ipse miserrima vidi.
Et quorum pars magna fui."

The walking of a Hospital is a very useless mode of spending your time, unless you *observe* as well as see what is going on.

The materials in this Hospital for the study of your Profession are very great indeed: there is scarcely an injury which can afflict the human body but will be exemplified by cases during your attendance here. Look at the list of casualties admitted here: in 1861 they actually amounted to 11,973;—why, this is a very large number indeed. Let us consider the items a little: here are 1285 fractures, 128 dislocations, and 100 cases of hernia; I find, also, that there are no less than 208 cases of retention of urine. Now, I do not mention these things to magnify our own importance, but in order to stimulate you to look well, and remark upon all the circumstances appertaining to such cases. Casualties, under which head I include all cases requiring prompt attendance, are of the highest possible value to the student in Surgery. In private practice they may not very commonly occur to you, but this very circumstance really makes it more important for you to study them well here. The very first case you may have to deal with in practice may be the case of an old gentleman with a retention of urine; and if you had not been properly instructed—nay, practically instructed—in the art of passing the prostatic catheter, you would fail to relieve your patient, and a golden opportunity to facilitate your Professional progress might thus be missed. You must remember that the treatment of accidents, as the reduction of dislocations, etc., must be prompt and decisive; you cannot wait, or the opportunity for giving relief may pass away, not to return. Thus, take a case of hæmorrhage from a wound of a large artery; see how many persons bleed to death before assistance is afforded; here you have no time to send for any assistance; you must act on the spur of the moment, or your patient will die. So, also, in the reduction of dislocations, half-an-hour may make all the difference in the case; for that which can be accomplished at first readily, and with but little exertion, will, by the subsequent spastic rigidity of the muscles, be rendered so difficult of reduction as to require the use of pulleys, chloroform, etc.

I, therefore, strongly advise you to make yourselves well acquainted with that branch of Surgery which is concerned in the treatment of accidents. In the wards of a Hospital you will be able to apply the principles you learn in the lecture-room to practice, and you will have abundant opportunity of employing your anatomical knowledge in the treatment of a vast many cases which will be presented to your notice; and hence the importance, nay, the absolute necessity, of having a Hospital in connexion with a School of Medicine. No school can be perfect without it, for clinical study, both in Medicine and Surgery, forms the basis of useful education.

I will read you a case in illustration of the first part of my argument—I mean the application of anatomical knowledge to the cure of Surgical disease:—

Edward L., tailor, residing at Brick-lane, Spitalfields, aged 64, was admitted on Saturday, October 11, 1862, with complete retention of urine. According to his own account, he has had stricture for two years, originating, as he supposes, from a kick which he received on the perinæum; in the intermediate time, he has had occasional attacks of partial retention, which he (the patient) says was generally relieved by resting in bed for a day or two, and has only once had recourse to the catheter for relief.

Nos. 9 and 8 catheters were tried in the receiving-room, but with no effect; then Nos. 6 and 5, with the same result; this was followed by a great deal of bleeding; the patient was then sent to the wards, put on middle diet, and ordered a warm bath immediately, which diminished the pain; after this a small quantity of urine, mingled with blood, was passed.

On the 12th he was first seen by Mr. Adams, who examined the perinæum, and ordered sixteen leeches to be applied, and the following prescription to be taken ter. die.:—Liq. potassæ, tr. hyoscyami āā ℥xx, mucil. acaciæ ℥j.

13th.—The patient felt easier, but continued to pass blood with his water.

14th.—The patient felt uneasy, and complained of much pain in the perinæum, with constipation of the bowels; ordered ol. Ricini ℥j, to be taken at bed-time. Towards the evening the patient became much worse, and began also to complain of a sense of swelling and tightness about the perinæum; the patient continued in much pain during the night, occasionally passing small quantities of blood and urine.

On the following day (the 15th) he was again seen by Mr. Adams: the parts about the perinæum, and scrotum, and root of penis, were swollen and tense, and the patient complained of a great deal of pain on pressure; and on Mr. Adams seeing the case, he immediately made a deep incision into the perinæum, when urine, mixed with blood and pus, escaped; the scrotum was soon after much altered in appearance, a piece of lint was inserted to stop the bleeding, and a linseed-meal poultice was subsequently ordered. The patient expressed himself to be greatly relieved by the operation.

16th.—The patient still continues to pass his water through the wound; was again seen by Mr. Adams, who pronounced him to be going on favourably, and ordered full diet. At 5 o'clock in the afternoon the patient passed a small quantity of urine by the natural passage.

17th.—The patient feels much better, but still passes his urine through the wound, none having come through the natural passage since yesterday, at 5 o'clock.

Thus you will perceive in this case—first, that the extrava

sated urine was making its way precisely in the direction our anatomical knowledge would have led us to expect, and that the urine, guided by the *deep layer of the superficial fascia of the perinæum*, was advancing towards the root of the penis, leaving the thighs and anus quite free from all mischief; and, next, you will perceive that, under this anatomical impression, a free incision of at least an inch in depth was made, and liberated the pent-up urine, and that, by these means, I anticipated extensive extravasation and gangrene of the scrotum and skin of the penis; and possibly the death of the patient was, by this timely interference, thus averted.

I will briefly tell you how the extravasation has happened in this case. The man comes in with retention of urine from stricture, and he is but partially relieved by the catheter, the warm bath, etc. I believe the catheter was not passed through the stricture; but the man was able to void his urine afterwards, although with difficulty. Inflammation attacks the seat of stricture, ulceration occurs just behind it, and a small abscess first forms, into which the urine escapes; after this the abscess gives way, and then the urine would be propelled by the efforts of the detrusor urinæ into the cellular membrane of the scrotum and root of the penis, if it were not at first arrested by the deep layer of superficial fascia. I consider it of the highest importance that you should watch the case through all its stages, so that at the moment when induration of the perinæum occurs, accompanied by deep fluctuation, the knife should be thrust into the part to give exit to the fluid, whether pus or urine, or, as in the case before us, a fetid mixture of the two together. It is worse than useless to waste a moment of time when once the urine has escaped from the opening in the urethra: I may say, that any delay in this respect is fatal. Leeches and all other means are positively useless. If you dissect the parts carefully when not diseased, you can readily understand every feature of the case, and you proceed in your treatment well fortified by the knowledge you acquire in the dissecting-room.

We shall be able to offer you abundant examples of this most important truth; and in the dissecting-room, even at this present moment, you will find all the parts concerned in this case we are considering amply displayed before you.

I am quite sure that you will feel an inward satisfaction in having the cases explained to you, for there is nothing more satisfactory to the inquiring mind than the knowledge that it is in the right track for the acquisition of Professional knowledge. If you attend to the instruction offered to you, you will find that you are often imperceptibly learning that which in after life will be of the greatest use to you.

Let me also forcibly advise you to make it a matter of every-day duty to record cases, and to place your own ideas upon such cases side-by-side with the remarks you may have heard from others in the wards. Now, just picture to your own minds this simple circumstance: admitting that there are 12,000 accidents admitted here every year, suppose one-half of these cases are witnessed by yourself,—if even the briefest record is kept of such cases, you will at the end of your three years' study have a personal account of 18,000 cases. I may tell you that the record of cases will much assist you in practice; and in the present day, if you are desirous of becoming authors, and writing on any special branch of Surgery, the facts which you can thus convey will be overwhelming, and will tend to dissipate any absurd hypothesis which may be prevalent at the time you are writing. The numerical method of arriving at a conclusion is most useful and interesting; but you must not be led away by it in practice, for it may lead to most false conclusions, unless it is carried out with the greatest circumspection, and its facts put to the most scrutinising tests.

I will relate a curious instance of the fallacy of paying too much attention to the numerical method of inquiry, in reference to the treatment of a most important class of Surgical diseases—I mean cancer. Not a very long time ago it was supposed to be proved, by the statistical method of inquiry, that the operation of removing the cancerous breast by the knife was not only not useful, but was actually detrimental, inasmuch as that it diminished the duration of life in cancer cases. Such was a very prevalent idea, and it acted most injuriously; for many patients, who had become acquainted with the opinion, declined all Surgical interference, and gave themselves up to die a most miserable death. The idea was fostered by some Surgeons. Now, what are the facts? Why, the very opposite of that which was supposed; and it is now proved that, so far from being diminished, the duration of life is most materially increased by the operation. Even if it were true that the expectancy of life was diminished, I may ask, what is the value of length of days in such misery—"*Longa dies, igitur, quid contulit?*"

If one case in one hundred is cured by the operation, this is, in my opinion, abundantly sufficient to justify the operation. I say, therefore, multiply your cases to the utmost, and arrange them carefully, and you may be serviceable in rendering most important aid to Medical science, whilst you are conferring incalculable advantage on yourselves. I know nothing more interesting than the recollection of parallel cases, if you can bring them forward when you require them in the elucidation of any particular doubtful case. It was this which gave so great a charm to consultations with such distinguished men as Sir Astley Cooper and the late Sir Benjamin Brodie.

ORIGINAL COMMUNICATIONS.

PROFESSOR PETTENKOFER'S RESEARCHES ON RESPIRATION AND THE CHEMISTRY OF LIFE.

We are happy to be able to place before our readers a full abstract of a most important paper, just published by Professors Pettenkofer and Voit, of Munich—"On Respiration and the Chemistry of Life." The researches made by these gentlemen are the first ever undertaken on living subjects under perfectly normal conditions; and all other experiments made in this or any other country must be considered devoid of value, when compared with those which have now, for some time, been carried on by the physiologists of Munich. In investigations of this kind the method employed is of paramount importance; and whatever may have been the accuracy of analysis of the substances obtained, and the industry and application of previous experimentalists, the fact, that all their results have been arrived at, under more or less unusual, troublesome, and, therefore, unnatural conditions, as well as the circumstance, that their degree of accuracy would not be ascertained by cross experiments, render their researches, in some measure, useless. We feel satisfaction in reminding our readers that the first short description of the Munich apparatus and method, which have since led to such important results, was published in these columns in a letter from our Munich correspondent, which will be found in the second Volume of the *Medical Times and Gazette* for 1861, pp. 282, 283.

A few years ago, Messrs. Bischoff and Voit published an account of some observations made on the nutrition of the carnivora, which, independently of other valuable discoveries, have shown that the ingredients of the food taken, which, under different circumstances, escape through the skin and lungs, cannot be correctly calculated from the difference of carbon between the ingested food and the egested urine and fæces, regard being had to the weight of the body, but that they have to be brought out by quantitative experiments for each case singly, and with the same care as is necessary for determining the elimination of nitrogen by the urine. It is true that we may, by means of the balance, determine the entire amount of substances escaping from the body into the atmosphere; but as this loss consists, not of one, but of several substances—viz., of water, carbon, and hydrogen, in the form of carbonic acid and water—it is left to the pleasure of the experimentalists to proportion the quantity of each; while, with regard to the living body, it makes a great difference whether, in a given case, carbonic acid is generated and eliminated, or whether water evaporates. The experiments of Henneberg and Stohmann (contributions to the rational feeding of ruminators) came to the same dead-lock. The question, therefore, arose, whether or not the apparatuses hitherto constructed for furnishing a quantitative analysis of the gaseous excretions by skin and lungs were suitable for carrying on the experiments in large animals and men, regard being had to the food taken during the twenty-four hours, and the excretions through the intestines and the kidneys. No one who is acquainted with the literature on the subject will deny that no previous method, and no previous apparatus, satisfied all the claims which must be made on it. All former apparatuses had two great defi-

ciencies: in the first instance, they compelled the subject to breathe and perspire under circumstances in which neither man nor beast are wont to live; and secondly, no satisfactory *experimenta crucis* on the degree of accuracy of the results obtained could be made by any one of them. The want of such "experiments of control" must needs give rise to a want of confidence in the pretended infallibility of surprising results, obtained with complicated contrivances. So long as such accuracy is not proved by its being shown, that in experiments where, under analogous conditions in man or animal, known quantities of carbonic acid, nitrogen, etc., are developed, and, at last, found again, strong doubts as to the correctness of the results must be entertained. Even if accurate methods are employed, it may, and always will, occur that erroneous conclusions are arrived at, if we are not able to determine whether all premises have been really fulfilled, and whether no unforeseen influences have come into play. It is only such experiments of control which can show the worth of an apparatus, and the possible faults of experiments. A comparative accuracy of proceeding may be sufficient for solving certain questions, such as, for instance, under what circumstances carbonic acid is increased or diminished; but when it is necessary to show its absolute quantity, methods of relative accuracy, such as have hitherto been employed, are useless.

In the present state of physiology, therefore, an apparatus was required, which allowed a man to move and breathe freely, without the intermedium of any contrivance attached to the body, just as in an apartment, and where he is not subject to any difficult or extraordinary conditions during a time of, at least, twenty-four hours. This task could only be solved by transferring a man into a current of air, which might be accurately measured, and directed *ad libitum*, and by examining the air, with regard to certain of its contents, when first entering the apparatus, that is, before it has come in contact with the man; and by repeating the investigation after the air has taken up the gaseous excretions by the skin and lungs. From this it appears that it is essential to examine the differences in the air, which enters and leaves the apparatus, such examinations being well suited for eliminating all constant sources of error.

The question has not yet been settled, how quick and large the change of air ought to be, in which a man may live for some time without feeling any disturbances of health or discomfort. No doubt the quantity will vary according to the individual constitution and bodily condition. It has been proposed to calculate from the alterations of the air, with regard to oxygen, carbonic acid, and water, an average quantity for the necessary change of air; but all numbers gained in this way do not satisfy our own sensations and daily experience. We only know that, if we wish to be well and comfortable, we require air which contains a much more considerable quantity of oxygen, and a far less considerable quantity of carbonic acid and water, than appear to be absolutely necessary for the processes of respiration and perspiration. The necessity and the effects of the fresh open air are, in a great measure, a mystery to us, although the fact has always been acknowledged. That which renders the air of a crowded room oppressive and unpleasant—that which acts upon our nerves, and may produce symptoms varying from fullness in the head to a fainting-fit, is not merely heat or moisture, nor the carbonic acid in the air, nor the deficiency of oxygen; but such air appears to us foul and disgusting long before it is saturated with aqueous vapour, or is deprived of too much oxygen, or is charged with more than one per cent. of carbonic acid. It becomes disgusting in proportion as it has been repeatedly inspired and expired, or has several times come in contact with the surface of the body, and as it has become impregnated with organic excretory matters, however small may be their amount. It is possible, nay, even probable, that some of the organic vapours, which originate during respiration and perspiration, have only a very small tension, so that the air becomes rapidly saturated with them, and cannot withdraw any more of them from the body, unless it should be rapidly changed and renewed. The accumulation of such vapours within the system, however small their quantity may be, may, therefore, act upon certain parts of the nervous system, and, by means of these, upon the whole metamorphosis of matter, just as, when mixed with the atmosphere, it acts upon our olfactory nerves, and, under certain circumstances, even causes vomiting. It would, therefore, upon physiological principles, seem unjustifiable to bring a man or an animal in a small and stagnating volume of air, which would not be changed in its entirety during a certain time—that is, to which, perhaps, only the consumed oxygen would be added, or from which part of the carbonic acid generated would be withdrawn.

On the other hand, there can be no doubt that such change of air is not necessary *in infinitum*, but that there is a limit beyond which it would be superfluous to pass. Dr. Pettenkofer has already, on a former occasion, endeavoured to find out this limit, proceeding from an altogether empirical point of view. He determined what amount of fresh carbonic acid, generated during respiration and perspiration in the air of a well-ventilated room, might be added to the amount of carbonic acid originally contained in the atmosphere, before the organic vapours which are excreted would unpleasantly affect our olfactory nerves. The result was, that after one-thousandth part of carbonic acid was added to the air by respiration and perspiration, the air began to smell. The increase of carbonic acid is not identical with bad air, but only serves as a standard to show how much of the air contained in a room has already once served for respiration. He had repeatedly, and for a considerable time, been in rooms which contained $\frac{10}{1000}$ths of carbonic acid, and, nevertheless, felt quite comfortable; this carbonic acid, however, had been set free by adding sulphuric acid to bicarbonate of soda; while, on the contrary, the stay in a room, the air of which contained $\frac{10}{1000}$ths of carbonic acid, generated by the respiration and perspiration of human beings, soon became intolerable to every one. Dr. Pettenkofer has only rarely found $\frac{10}{1000}$ths of carbonic acid in the foulest air of barracks, prisons, schools, lecture-rooms, tap-rooms, etc.; on the contrary, as soon as $\frac{2}{1000}$ths of carbonic acid are contained in a room, an unpleasant smell and great discomfort are perceived. In such air, one feels the necessity of opening, at times, the door or the windows, and is frequently compelled to draw a deep breath, that is, to sigh. There are some authors who contend that the air of a room might contain $\frac{5}{1000}$ths of carbonic acid, and might yet be considered wholesome. But, whoever makes such assertions, has either never determined the quantity of carbonic acid contained in an atmosphere, thought by him good or bad, or he suffers from anæsthesia of the olfactory nerves. Dr. Pettenkofer has, in a large number of experiments, made in rooms where the carbonic acid present merely proceeded from perspiration and respiration, never found so large a quantity of carbonic acid as has been asserted by some authors, if the air was good; but, if the quantity mentioned was found, the air appeared highly disgusting and foul to every one who entered the room.

The amount of change of air which is sufficient for a man under almost any circumstances, is, according to Dr. Pettenkofer's researches, about sixty cubic metres per hour, in large rooms; that is, the same quantity which is now-a-days claimed for a patient in Hospital wards.(a) Although this amount is considered excessive by some writers, and a few believe twenty cubic metres quite sufficient, at least for healthy persons, and in small rooms, Dr. Pettenkofer was, nevertheless, obliged to pay regard to this measure in constructing an apparatus for respiration, in which a man could remain for twenty-four hours. He, therefore, made a contrivance, by which he was able to effect a change of air, varying from seventy-five to fifteen cubic metres, and even less, per hour. It thus became possible to perform experiments on the influence of a very considerable and a very trifling change of air upon the system and the metamorphosis of matter, to put a reliable touchstone to the many diverse statements hitherto made, and to finally settle this question, which is of so much practical importance.

Another important point in constructing the machine was the size of that portion of the apparatus in which a man should stay during the experiment. Dr. Pettenkofer considered it would be best to give this part the shape of a chamber, in which a bed, table, and chair might be placed, and some space was left for exercise and walking. The smallest space which seemed to be sufficient for this, appeared to be a cube of eight feet (2·335 metres), that is, of 512 cubic feet, or 12·7 cubic metres. As a perceptible draught is very unpleasant, and even detrimental to us, especially if we have to keep quiet, it was likewise necessary to determine whether the transverse section of the room (5·452

(a) Grassi, Etude Comparative des Deux Systèmes de Chauffage et de Ventilation établis à l'Hôpital Lariboisière. Paris, 1856.

square metres) was sufficiently large for rendering the movement of air imperceptible. If we know the transverse section of a ventilated place, and the quantity of air which moves in it per second, we may easily calculate the rapidity with which it moves, if we divide the quantity of air by the transverse section. If 15 cubic metres of air pass through a room per hour, 0·0444 cubic metres pass through it in the second; and since these move on a transverse section of 5·452 square metres, it follows that the air moves with a rapidity of 0·008 metres in the second. But if the largest quantity—viz., 75 cubic metres—pass through it per hour, the air will only move with a rapidity of 0·0208 metres in the second. Real draught is only perceived as soon as the rapidity of motion of the air has risen to one metre and upwards. There was, therefore, no occasion to fear that a draught should be felt in the chamber of the apparatus, or that a candle would not burn there steadily. These suppositions were afterwards fully confirmed.

The construction of an apparatus based upon such principles was not only rendered difficult by the necessary size, etc., but chiefly by the considerable expense it entailed. The funds of the Physiological Institute were altogether insufficient to meet the case; but, after Dr. Pettenkofer had communicated his plan to Baron Von Liebig, and the Technological Committee of the Academy had reported favourably on it, King Max, who is always willing to promote the interests of science as far as lies in his power, gave a sum of 7000 florins (about £600) out of his private purse for the construction of the machine. Before, however, the construction of so large and expensive an apparatus could be conscientiously undertaken, it was necessary to determine whether we were in possession of the scientific means for ascertaining with perfect accuracy, in so considerable a current of air, the amount of carbonic acid and water generated by the respiration and perspiration of a single man, and which is comparatively minute. It was of chief importance to take into consideration the changes of volume which might be produced in a current of air by a man breathing in it. Changes of volume consequent upon pressure, temperature, and moisture, could not be looked upon as essential sources of error, since they could, without difficulty, be taken in account by observations with the barometer, thermometer, and psychrometer, as well as by weighing the water.

The quantity of oxygen which disappears during respiration is not easily determined; but the excellent researches on respiration made by Vierordt, Regnault and Reiset, Hutchinson and others, furnish sufficient matter for a satisfactory judgment to be formed on it. It is settled, that by far the largest part of the oxygen, which is taken up from a current of air during twenty-four hours, leaves the body in the form of carbonic acid; and since one volume of carbonic acid takes up the same space as the oxygen contained in this compound, no alteration in the volume of air takes place, in so far as oxygen is used up for the formation of carbonic acid. It is well known that the volume of expired air, regard being had to pressure, temperature, and moisture, is always slightly smaller than the volume of inspired air, inasmuch as oxygen is not exclusively employed for the formation of carbonic acid, but also for water and other compounds of oxygen. It appears, from the researches of Regnault and Reiset on this point (b), that the quantity of oxygen used up, and not again excreted in the form of carbonic acid, differs according to the food taken, and varies from $\frac{1}{10}$th to not quite $\frac{3}{10}$ths. If we, therefore, take the medium volume of inspiration of the adult as five litres per minute, that is, 300 litres per hour (c), the medium amount of carbonic acid contained in the expired air is, according to the numerous experiments of Brunner and Valentin, and of Vierordt (d), 0·230 litres of carbonic acid per minute, or 13·8 litres per hour. If this carbonic acid should only contain two-thirds of the used-up oxygen, and if one-third should have been employed to form water and other oxides within the system, there would be a diminution of volume amounting to 6·9 litres per hour. If, therefore, the current of air in which a man breathes, amounts only to ten cubic metres (10,000 litres) per hour, there is only the possibility of an error of 1-10th per cent., if this change of volume should not be taken in account. The error becomes still less considerable, if the current of air amounts to from twenty to forty cubic metres per hour. These facts enabled Dr. Pettenkofer to say that the problem to be solved was, to ascertain the quantity of carbonic acid and water, and perhaps of hydrogen and subcarburetted hydrogen, which would be added to a current of air by a man living in it.

It now appeared incumbent upon him, first, to discover the best means for producing a constant current of air of an *ad libitum* amount; and, secondly, the means for an accurate measurement of the same. The first requisite was easy to procure: a couple of sucking-cylinders, with ventilation valves, moved regularly, and *ad libitum*, by a mechanical contrivance—say, a clock-work, and connected with the respiration-room by means of conducting tubes—being quite sufficient for it. If the respiration-room was, on the opposite side, left to communicate freely with the atmosphere by means of corresponding apertures, it was evident that an equally large volume of air was always obliged to enter on this side, as was removed by the sucking-cylinders on the other side. As sucking-cylinders, with ventilation valves, are not fitted to serve for accurate measurements, in consequence of their not always being quite tight in certain parts, it was necessary that an apparatus for measurements should be interpolated between them and the respiration-room. This second condition had already been previously fulfilled. The wet gas-meters invented by Mr. Samuel Glegg, who takes a deservedly high rank for inventive genius in all that concerns the manufacture of gas, are, according to numerous experiments made by Professor Pettenkofer, quite sufficient for allowing a constant and accurate measurement to be taken of a current of air produced by pressure or sucking within closed tubes. It is a curious circumstance that there is no work on technology, or even on the subject of gas itself, in which a correct idea of the principle of the gas-meter was conveyed, and only few chemists and physiologists are conversant with it; but the instruments made by the best makers are so perfect that the indications given prove accurate as far as $\frac{1}{100}$th.

Gas-meters deserve a much more general employment for scientific purposes, in physical, chemical, and physiological laboratories, than has hitherto been given them, especially where it is not necessary to collect the whole amount of the gas, but only to exactly measure it.

On determining the small increase of carbonic acid and water in so considerable a current of air as would pass through the apparatus, there were two ways to be pursued. We might either endeavour to absorb and determine the whole amount of carbonic acid contained in the current of air; but Dr. Pettenkofer considers it impossible to withdraw from a current of air of only ten cubic metres per hour, such small quantities of carbonic acid in so complete a manner that there should not be errors amounting to several per cents. of the whole quantity. Or we might take a corresponding fraction of the current of air, the whole of which had been measured, so that the fraction would give exactly the mixture of the whole; and we might then search for carbonic air in this fraction with the utmost scientific rigour, and then calculate the result for the whole amount of air. Since the air which enters the apparatus, even if it comes quite fresh from the atmosphere, already contains carbonic acid, which afterwards is increased by respiration and perspiration, there are chiefly the differences to be ascertained, which, if similarly examined, furnish very accurate results because of the elimination of all constant errors. Thus, we may determine the quantity of carbonic acid in the air which enters the machine in a similar manner as in that which leaves it; just as in a balance, the constant errors would be placed on both scales, and only the differences be taken in account. But although the determination of these differences tends to increase the accuracy of research in a considerable manner, it still remained to ascertain within what limits the difference would be found accurate; as the quantity of air to be analysed would depend upon that. All former experience, however, proves that we can only succeed in completely withdrawing carbonic acid from a current of air, either by solid or by fluid means of absorption, if its rapidity or its volume are very small. It is known that, if we wish for a complete absorption of carbonic acid, we should, even if the absorption tubes are very long, cause to pass only about five litres of air through them per hour. If we have, therefore, to deal with a current of air amounting to 20,000 litres and more per hour, we are limited to a very small volume (five litres) of the specimen to be examined, and every error committed in such researches is immediately multiplied by 4000. Dr. Pettenkofer, therefore, took much trouble

(b) *Ann. Chem. Pharm.* Vol. lxxiii., pp. 269 and 272.
(c) Ludwig's "Physiologie," Vol. ii., p. 497.
(d) Ludwig's "Physiologie," Vol. ii., p. 530.

to perfectionate his titration method for determining the amount of carbonic acid in the air by lime, or baryta-water, and succeeded in rendering it so sensitive that $\frac{1}{10}$th of a milligramme of carbonic acid is shown by it with great clearness, so that all reasonable claims for accuracy in this respect were satisfied. If we suppose that 500,000 litres of air pass through the respiration apparatus during twelve hours, and to which are mixed during that time 600 grammes of carbonic acid formed by respiration and perspiration; and if we further suppose that, out of these 500,000 litres, only 100 are employed in searching for carbonic acid, which, diffused in 500,000 litres of air, should be accurately determined, so that a possible error should not amount to $\frac{2}{10}$ths per cent. of the whole quantity, the question arises,—What quantity of carbonic acid can be found with certainty in 100 litres of air? The answer is given by the following equation:—

500,000 litres of air : 1 gramme of carbonic acid = 100 litres : x. grammes; that is, x. = 0·0002 grammes, or $\frac{2}{10}$ths of a milligramme. But as Professor Pettenkofer's method, when correctly used, even allows the recognition of $\frac{1}{10}$th of a milligramme with great certainty, no fears concerning the success of the search for carbonic acid need be entertained. The correctness of these suppositions has been confirmed by the results of the investigations. Cross-experiments have shown that the quantity of carbon contained in a stearic acid candle, which burns for some time in the respiration-apparatus, if there is a change of air amounting to 20,000 litres per hour, may just as accurately be determined from the carbonic acid evolved during this process, as it may be by elementary analysis. The more sensitive a balance or a method, the smaller may the fraction become which is to be examined, and from which we may draw correct conclusions concerning the whole. In this respect chemical analysis has, in several departments, made rapid progress; thus, for instance, tens of thousands of pounds of alloyed silver and gold pass annually through a mint, and of which scarcely $\frac{1}{100000}$th is chemically examined. And, nevertheless, there is such complete uniformity in the coins, that the error does not amount to $\frac{1}{10}$th per cent. altogether. If we examine one gramme of alloyed silver for one milligramme of contents, the results are generally even more satisfactory than if we were to examine a thousand kilogrammes for one kilogramme.

Water is searched for in a similar manner as carbonic acid, both in the air which enters and which leaves the apparatus. The same may be said of the non-oxidised compounds of hydrogen and carbon, the quantity of which may be ascertained if we burn the air, and determine the addition thereby made to it of water and carbonic acid. It is evident, from the researches of Regnault and Reiset, and the excellent experiments of Planer, on the intestinal gases, that there cannot be any other compounds present than hydrogen and pit-gas.

(To be continued.)

ON PERICARDITIS CONSEQUENT ON PYÆMIA.

By W. S. KIRKES, M.D.

Assistant-Physician and Lecturer on Medicine at St. Bartholomew's Hospital.

(Concluded from page 433.)

The recent case at St. Bartholomew's Hospital, which suggested the publication of this paper, was, quite briefly, as follows:—

A boy, about 16 years old, while engaged in a fight with another boy, received a violent kick on the left shin, about an inch below the knee. This occurred on August 22nd. On the 26th he presented himself at the Hospital, and showed his leg to Mr. Marsh, the House-Surgeon on duty. There was a red, tense swelling over the injured part; and Mr. Marsh, being struck with the peculiar haggard, anxious look of the boy, admitted him into the Hospital, under the care of Mr. Savory. On auscultation, a well-marked pericardial friction sound was detected. The patient complained of general pains in the limbs, and of feeling very ill. There was, however, no swelling, redness, or particular tenderness of any joint, and, moreover, no rheumatic odour. The skin was hot, the pulse about 120, and the tongue coated with a yellowish fur. On the day after admission a few small pustules were detected on front of the chest and abdomen. The swelling over the left shin was incised, and much puriform matter evacuated, and the patient was supported with bark, wine, and good nourishment. The nervous agitation, however, increased, the symptoms became more typhoid, signs of copious pericardial effusion ensued, and the boy died exhausted on the 29th, three days after admission, and seven from the receipt of the injury.

On post-mortem examination, the pericardial cavity was found distended with turbid serum, while flakes and curdy masses of recent lymph were spread over the surface of the membrane, which was intensely vascular. The muscular tissue of the heart, when cut into, was found generally softer than natural, especially about the left ventricle. Together with this general softening, there were numerous buff-coloured patches, as if resulting from some change in the tissue rather than from actual deposit: in many places such discoloured parts were much softened, and several were even reduced to diffluent, purulent-looking masses, varying in size from pins'-heads to split-peas. This softened material, when removed, left little cysts or sacs in the substance of the muscular wall. Such masses were especially abundant about the base of the heart, and in the walls of the left ventricle. Several were close to the pericardial surface of the heart, and one at least, detected by Dr. Andrew, appeared to have opened into the interior of the left ventricle. Microscopic examination of the softened material exhibited little else than an abundance of oil globules of all sizes; much granular matter; and many shreds of muscular tissue, the majority of which presented more or less decided evidence of granular degeneration. No actual pus corpuscles were observed. All the valves of the heart were healthy.

Within the lungs were numerous ordinary pyæmic deposits, many of which were reduced to collections of soft, purulent-looking matter. Over several of these which were near the surface of the lungs, were signs of recent pleurisy in the form of soft lymph over highly-vascular membrane. Several purulent-looking deposits were also found in the soft pulpy spleen, and on the surface of each kidney. The liver was free. Much mischief was found about the left shin: the soft tissues about the seat of injury were infiltrated with greyish, purulent-looking, blood-stained fluid; similar fluid existed between the periosteum and the bone, which were separated from each other all around the shaft of the tibia for a considerable distance beyond the seat of injury; the tibia itself, at the part where the blow was inflicted, was very vascular, and rough to the touch. The saphena vein was free; the femoral not examined.

The resemblance, in all its main features, which this case presents to the one first narrated, is so marked that there can be no doubt about the identity of the chain of phenomena in the two. Without, therefore, commenting further upon it, I may pass to the following general remarks originally offered on the subject.

Cases of the above kind, where inflammation of the pericardium is found associated with purulent deposits in the muscular tissue of the heart, have usually been described as cases of carditis, or acute pus-depositing inflammation of the muscular substance of the heart. But I believe now that this explanation is erroneous, and that the muscular tissue of the heart is not primarily at fault, but is merely, by accident as it were, and in common with other parts of the body, the seat of secondary formations in consequence of contaminated blood, and that the attendant pericarditis is merely an accident of the proximity of some of the deposits to the surface, and, it may be, of their bursting into the cavity. Let me state some of the principal grounds for this opinion, which it is especially desirable to do, since a right appreciation of the nature of this structural change in the heart is very important in relation to the treatment of such cases; for as they are usually associated with some primary affection of a bone or joint, and as other joints are liable to be secondarily affected by subsequent deposits or formations of pus in or around them, the cases are extremely liable to be mistaken for cases of rheumatism, from which disease, however, they essentially differ, and require a totally different treatment.

1. That the changes in the muscular texture of the heart are induced by local formations or deposits from contaminated blood, and are not the result of purely inflammatory processes, seems evident from their very nature and character as exhibited on close examination. For, independently of the fact that muscular tissue rarely inflames except as the result of direct injury, the appearances presented by the changes in question are much more like those presented by secondary

formations in other organs, than the effects of simple inflammation. Thus, they often occur as congested spots or blotches, with a pale yellowish-brown or buff-coloured centre, or as fawn-coloured streaks, or small, yellowish, isolated points of pus in the midst of firm and apparently healthy muscular tissue. Whatever be the character presented by the deposit, indeed, the intervening muscular tissue itself seems free from disease, or not more congested and softened than the presence of the foreign deposit might account for. When the deposits are very numerous and close together, the congestion and infiltration of the intervening fibres is, as might be expected, very considerable; but when the deposits are few in number and far apart, the intermediate tissue appears scarcely changed from its ordinary state.

2. Again, the development of symptoms referable to the heart was, in most of the cases of so-called carditis which I have observed, clearly preceded for several days by some cause calculated to give rise to contamination of the blood, such as inflammation and suppuration of a bone or joint ensuing idiopathically or resulting from injury, as in the three cases just narrated. In one very marked instance, the whole mass of blood had been vitiated by the bursting of a large abscess in the substance of the heart into the interior of both ventricles.

3. Moreover, in all the fatal cases of the kind which I have examined after death, the lungs and various other parts presented abundant secondary formations, similar to those in the heart, a circumstance favouring the view that they had all originated in the same general cause; namely, a contaminated state of the blood.

4. That the inflammation of the pericardium met with in all the instances was the direct consequence of the changes in the muscular tissue of the heart, was rendered probable by the fact, that in all of them some portion of the deposit was found close to the external surface of the heart; that in some the pericardium was softened over an abscess, and in others the collections of pus projected above the surface, and had, probably, in some cases, given way, and entered the cavity. The mere proximity of an abscess, however, independent of its bursting, would doubtless be sufficient to induce inflammation in a membrane so sensitive as the pericardium. We see a like effect sometimes when any other foreign substance —such as a mass of cancer, especially when softening—protrudes into the pericardium, or when this membrane is the seat of tubercular deposit.

It may, then, I think, be fairly assumed that inflammation of the pericardium, when found associated with deposits of pus or like matter in and near the surface of the heart, is the direct result of such deposit, and not an independent or simply associated affection. The occurrence of pericarditis in connexion with such deposits in the heart, and with a general vitiated state of the blood, such as sometimes occurs after injuries or Surgical operations, is worthy of being specially noticed, for it furnishes another set of conditions under which pericarditis may ensue. Among the recognised causes of pericarditis, rheumatism, albuminuria, cancerous and tubercular deposits in and about the pericardium, justly occupy the highest rank. Instances of pericarditis occurring independently of any of these causes are usually regarded as exceptional and isolated cases, which scarcely admit of being grouped into any special class. But it is probable that many of these isolated and obscure cases are of the kind just considered; namely, the result of secondary formations in the muscular substance of the heart, consequent on vitiated blood.

It is chiefly because the class of cases here specially noticed are in many respects so very like, and yet in nature so really different from, cases of ordinary acute rheumatism, that it is so peculiarly important to read them aright. The persons in whom the series of morbid phenomena just pointed out, namely, primary affection about a bone or joint (or other local cause of blood-poisoning) and secondary mischief in the heart, are apt to occur, are (at least so far as I have seen and read) weakly, hard-worked, badly-fed lads at about the age of puberty. So far the similarity to rheumatism is close, for boys of this class are not unfrequently the subjects of a first rheumatic attack. The disease sets in, too, like rheumatism, with pains in the limbs and joints, and, like it, is soon followed by cardiac or pericardial complication. A close examination, however, will almost invariably detect a manifest peculiarity even in those symptoms which seem to be rheumatic, as well as certain distinctive characters which are not met with in ordinary rheumatism. Thus, in the form of disease in question, the pain at first complained of in the limbs is usually fixed to one part, instead of being somewhat general and shifting its seat from one joint to another, as is usually the case with rheumatic pains. The pain, too, is often referred to the bones and fleshy part of the limbs, rather than to the joints, as in rheumatism. There is generally wanting, too, the swelling and characteristic streaky redness so often found about rheumatic joints, the swelling when present being usually slight, and rarely attended by any redness. The febrile symptoms also set in with more severity than in rheumatism, their onset being usually indicated by a distinct rigor, after two or three days' suffering with pain in one or more limbs.

There is also greater disturbance both of the nervous and vascular systems than occurs in rheumatism; the former denoted by excitement, mental distress, and agitation, succeeded by delirium, and usually terminating in stupor or coma; the latter denoted by an unusually rapid action of the heart, the pulse generally ranging from 120 to 140. Moreover, the peculiar odour characteristic of rheumatism is absent; and, what is a most important, and, I believe, constant symptom, an eruption of small pustules, quite different from the miliary vesicles in rheumatism, sometimes few in number, sometimes rather abundant, appears over the limbs, face, and trunk, in a few days after the commencement of the febrile symptoms.

Lastly, the disease runs a far more rapid, as well as a more deadly course than rheumatism, death usually ensuing, with typhoid symptoms, in from six to ten days from the beginning of the attack.

It will be observed, from this brief *résumé* of the main symptoms, that they are those of a rapidly-poisoned state of the blood, such as are often exhibited in acute phlebitis or pyæmia, after Surgical operations, rather than those of ordinary articular rheumatism. Injury to a joint or bone is inflicted by a blow, which may or may not be remembered; or a joint may inflame from exposure to wet or cold; or, again, from mere atmospheric causes, or in consequence of a trivial wound which has suppurated or been poisoned, inflammation of, or absorption of matter into, one or more veins, may have occurred; in one or other of such ways the venous blood may be contaminated by some local mischief, which may have existed for two or three days, with little more than local pain. Then deposits take place in the lungs, and often contaminate the arterial blood, from which, again, tertiary deposits ensue in various parts of the body, including the muscular tissue of the heart, and, by their presence in this latter locality, fatal pericarditis may be induced.

The importance of diagnosing such cases aright is obvious, when we contrast the depletory measures requisite to contend against acute articular rheumatism and pericarditis, with the tonic, stimulating, opiate, and nutritious plan of treatment, from which alone we can derive any hope of rescue from a disease, the natural and apparently almost inevitable tendency of which is to death.

Lower Seymour-street.

Harveian Society of London.—The next meeting of this Society will be held on Thursday, November 6, at 8 p.m., when a Paper will be read by Mr. William Sedgwick, on the "Influence of Sex on Hereditary Disease."

The Court of the Governors of St. Thomas's Hospital met on Tuesday afternoon, Sir John Musgrove, the President, in the chair, when the report of the deputation of four of the Governors recently appointed to examine the Hospitals of France, Belgium, and Holland was received with great satisfaction. A motion was then made to leave the whole question of choice and purchase of site to the Grand Committee, subject to the provisions of the Act of Parliament, upon which an amendment was moved, very much, it is understood, with the view of continuing the Hospital at the Surrey Gardens. In the debate that followed, the treasurer (Mr. R. Baggallay) and the leading members of the Grand Committee stated that no site had been chosen or even discussed; and that thirty to fifty acres ought to be obtained as near as possible to London. Finally, the motion was carried by a considerable majority; as also another, directing the architect of the Hospital to prepare plans, to be submitted to a future Court, and to the Medical men; and, after votes of thanks to the deputation and President, the meeting adjourned.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

CASES OF INJURY OF THE SPINE AND OF DISEASES OF THE SPINAL CORD.

Injuries in man often give us opportunities of studying certain physiological points, which it is next to impossible to do in animals. It is rare, however, that the injury is so exact as to confirm deductions from experiments. For instance, of the innumerable injuries to the spinal cord, there are few in which just so much has been wounded as will produce loss of sensation on one side of the body and of motion of the other. A woman was, a little time ago, admitted into the London Hospital, under the care of Mr. Maunder, for a stab in the back, it is supposed, below the last cervical vertebra. It cannot be actually known that the knife divided only one lateral half of the cord, but it is at least certain that the symptoms are exactly those of section of one-half of the cord in animals at this point. It is from Dr. Brown-Séquard's research that we gain the explanation of the singular features of this case. He has shown that the sensitive fibres cross in the cord nearly at the point where they enter it, and not as the motor fibres—all at once—in the upper part. Consequently, section of one lateral half of the cord produces paralysis of motion on the same side of the body and of sensation on the other. It produces also, among other effects, an increase of temperature on the side of paralysis of motion; and, when the injury is high up, diminution of temperature on the other. In Mr. Maunder's case there is a further series of phenomena depending on the precise seat in which the cord is wounded. The wound is just at the point where the cervical sympathetic communicates with the cord. We have, then, all the symptoms due to paralysis of this trunk, viz., increase of heat on that side of the face, contraction of the pupil, etc. The full details of this interesting case will be given in a future number.

It would, no doubt, add greatly to our knowledge of the physiology of the nervous system, and thus to our knowledge of disease of it, if the effects of injuries to the head and to the spinal cord were very accurately noted. The chief symptoms are defects of sensation (anæsthesia and hyperæsthesia), motion, alteration of temperature, convulsions, and affections of the senses. This is an arbitrary division, but perhaps as convenient as any other for the writing-down of symptoms.

In such injuries there is, as it were, no respect for physiological centres. We rarely find an injury limited to the corpus striatum or thalamus opticus, or to one column of the cord, or to the corpus olivare, as we do now and then in disease. An injury affects just the part struck or mechanically related to the external injury. There is this in favour of investigation in cases of injury, that in many cases death follows so soon, that the lesion is the same as when the symptoms were noted, and not, as in the case of a tumour or a softening of the brain. Here the disease gradually increases, and adds continually to the list of phenomena, so that at the autopsy we cannot be certain as to the cause of the early symptoms. But in injuries, also, we may expect, if the patient lives a long time, to find symptoms of disease of parts at a distance. For instance, after injury to the spinal cord, as in the artificial production of epilepsy in guinea-pigs, the epileptic condition does not come on until some time after. After damage to a part of the nervous system, disease may creep along in certain tracts, and produce effects at a distance, there being no appreciable alteration. It is possible that in disease of the cerebellum a morbid change in nutrition passes on to parts correlated, as the corpora quadrigemina, and produces blindness. If so, the microscope would detect changes which might be too minute to be seen on ordinary examinations.

UNIVERSITY COLLEGE HOSPITAL.

DISLOCATION OF THE SPINE AT THE FIFTH AND SIXTH CERVICAL VERTEBRÆ—DEATH—AUTOPSY.

(Under the care of Mr. ERICHSEN.

[From notes by Mr NANKIVELL.]

Edmund D., aged 32, admitted, under Mr. Erichsen's care, October 2, at 9 o'clock p.m. He was in a state of helpless intoxication, and had fallen from a cab. In consequence of the possibility that he might have been drugged, the stomach-pump was used; after which, he rallied somewhat, but spoke with difficulty, and very indistinctly. When undressed and examined, there was found to be considerable swelling over the left elbow-joint, and an abrasion of surface opposite the inner condyle. Distinct crepitus was felt, and a transverse fracture detected close above the condyles. A portion of the outer condyle was knocked off. A rectangular splint was applied and kept on above and below the joint.

October 3.—The patient has passed a bad night, constantly crying out, and complaining of being unable to stir or move in the bed. He referred great pain and stiffness to the back of the back. He was unable to sit up without assistance, and seemed to suffer much pain even when thus supported. On examining the neck, it was found to be swollen and tender. He kept it quite steady, and any attempt to bend it caused him much pain. About the fifth or sixth cervical vertebra the spine appeared inclined to the left side. There was complete paralysis of both lower extremities. He could move either of the arms, but could not close the hands. He was unable to pass water, and required the catheter morning and evening, pressure on the abdomen being used, and the bladder completely emptied, the patient not having the least power of expulsion. On this day, priapism first appeared, and, on removing the bed-clothes, erection speedily became complete. The surface of the body was much warmer than natural.

4th.—The swelling of the arm was somewhat less than yesterday; the priapism still remained the same.

5th.—Patient complained of a great tightness, as if of a cord across the upper part of his abdomen. The abdominal muscles were greatly relaxed. Sensation in the lower limbs is somewhat better, but motion remains the same. The heat of surface is now normal.

8th.—He still has priapism, now with seminal emissions. His motions to-day began to be passed involuntarily. The urine was highly ammoniacal, and still required to be drawn off constantly.

10th.—Much pain and tightness complained of over the region of the stomach. His hands and arms feel cold and numb, and he is unable to keep the right extended, the forearm and hand closing involuntarily as soon as opened.

11th.—Slightly delirious. Several seminal emissions.

12th.—Left hand white and cold at one time, and burning hot at another. The right hand appears swollen and tense, and had an erysipelatic blush over it. His urine still required to be drawn off, and the feeling of tightness about the chest continued.

13th.—The sensation of tightness about the chest and abdomen came on in paroxysms, with a most painful feeling of suffocation. The left arm aches very much, and is greatly hotter than natural. Towards evening he had violent convulsive movements in the right arm.

14th.—Some difficulty in swallowing. Breathing irregular—sometimes as low as six respirations in the minute, at others gasping quickly. His face became dark and of a leaden hue. He died at 1 a.m. on the 15th. About an hour and a-half before that, his arms were so much thrown about, that it was necessary to secure them.

Autopsy, Forty-eight Hours after Death, by Mr. Harden, House-Surgeon.—The skin over a range from the fifth cervical to the last dorsal vertebra was much discoloured. An incision was made along the line of the vertebræ. Much blood appeared effused in the cellular tissue at the upper part. The veins were full of non-coagulable blood. The spine, from the axis to the seventh cervical vertebra, was removed. On examination, the fifth and sixth cervical vertebræ were found disunited by rupture of their ligaments. There was also complete fracture across the right peduncle of the transverse process of the fifth cervical. On cutting up the bony canal of the part of the spine removed, extravasated blood was found along its whole length; and around that portion, directly opposite the seat of the fracture, there was a coagulum of

considerable size. On dividing and reflecting the membranes, the arachnoid was found adherent in places, and the pia mater beneath it looked congested, and here and there there were red patches, as if the vessels had given way. The medulla is redder, and slightly softer than natural; but there was no evidence of laceration of it or of its nerves.

In this case the extent of the injury rendered, from the first, the recovery almost hopeless.

Mr. Erichsen, in his work on Surgery, writes:—"Dislocation of any of the five lower cervical vertebræ may occur. The third vertebra is that which is least frequently dislocated. The fifth, that which is more commonly displaced."

There were several symptoms of considerable interest physiologically. There was great heat of the arms, and occasionally the reverse. It has been found that section of the cervical sympathetic, the motor-nerve of the blood-vessels, produces increase of temperature in the parts of the head and face, to which it is distributed. It is held, too, that the sympathetic is supplied by fibres from the spinal cord, so that when the cord is injured we have analogous symptoms to those of section of the sympathetic, in addition to those of paralysis of motion and sensation.

The patient's hands were at one time burning hot, but sometimes the left hand was very cold. To illustrate again from the cervical sympathetic, it has been found, by Dr. Brown-Séquard, that stimulus to this nerve, by galvanism, causes diminution of temperature from contraction of the blood-vessels. In this case, therefore, there may have been some irritation which occasionally acted on the motor nerves of the blood-vessels, inducing abnormal contraction, and thus coldness, followed afterwards by abnormal relaxation, and hence great heat.

Section of the cervical sympathetic does not, however, under ordinary circumstances, at all events, give rise to marked pathological phenomena, or what we may call actual disease. Although there is more blood than usual in the parts, there is not what would commonly be called inflammation. Yet, in the patient whose case we are relating, there was more than mere increase of heat; the right hand was swollen, and had on it an "erysipelatous blush." We must look, then, for some other influence of the nerves, if, indeed, in this case, it could be solely ascribed to them. The explanation may in this case be the one given by Dr. Brown-Séquard of the discovery of Claude Bernard, that, "instead of contracting, the blood-vessels of the salivary glands become enlarged when certain nerves are excited; the blood-vessels dilate, in consequence of a greater attraction of arterial blood developed in the tissues." The natural attraction of the tissues was, we may imagine, stimulated to the region of disease. In injuries of the head, the whole body is often in a state of extreme heat, due very likely to paralysis of the sympathetic fibres supplying the vessels. It is possible that the hypostatic pneumonia, which sometimes occurs in these cases, may be partly due, or favoured by, this state of the circulation as regards the lungs.

In many cases of paraplegia there is a feeling of a cord tied round the body. "The most probable mode of production of this strange feeling," says Dr. Brown-Séquard, "is, that it is due to some irritation of sensitive nerve fibres in the spinal canal, producing a sensation referred to the periphery of the body, abdomen, chest, or limbs." In Mr. Erichsen's case, it came on in paroxysms, and there was also a sense of suffocation at the time. Perhaps, here, it was due to implication of the phrenic nerve.

In several interesting papers read before the Medico-Chirurgical Society, Dr. Sidney Ringer has shown the relation which exists, in ague and scarlet-fever, between the amount of urea and other urinary constituents, and the temperature in these diseases. It might be worth while to see if, in the greatly increased temperature, after accidental injuries to the head and spine in man, or after experimental injuries in animals, there are more products of waste in the urine. Practically, it would, in most of them, be next to impossible to avoid various obvious fallacies, as regards the amount of food taken, etc.

In injuries to the spine, note should always be made as to the condition of each pupil. Dr. Brown-Séquard says, that fibres of the sympathetic going to the iris, arise in a very great length of the cord. He writes:—"A section of a lateral half of the spinal cord at the level of the fifth, the sixth, and even sometimes as low as the ninth or tenth dorsal vertebra, affects the iris like the section of the sympathetic, though in a less degree. On the other hand, we have seen, as Schiff also has, that some of the fibres animating the iris ascend the cervical part of the spinal cord, and most probably go to the medulla oblongata."

ST. THOMAS'S HOSPITAL.

INJURY TO THE BACK OF THE NECK—PARALYSIS OF THE FOUR LIMBS—HYPERÆSTHESIA OF THE RIGHT ARM—LOSS OF SENSATION IN THE LEFT—RECOVERY.

(Under the care of Mr. SOLLY.)

[Reported by Mr. WATSON.]

Richard M., aged 13, was admitted July 5, 1860. About a week before, a wheel fell upon the back of his neck, bruising it severely. He was not insensible at the time of the accident, but his legs and arms were at once paralysed as regards motion. There was loss of sensation in the left arm, but hyperæsthesia in the right. There was no sensation in the legs, but reflex action was easily excited. He breathed with some difficulty, and his motions passed involuntarily. His appetite was pretty good, and he could eat and swallow his food without difficulty. He slept well. There was some headache, but no great pain at the seat of injury. Examination of the back of the head showed considerable contusion when he came into the Hospital, and an inequality was observable in the line of the vertebral spines in the lower part of the cervical region, rather to one side of the middle line.

On admission, July 5, the paralytic symptoms had undergone some improvement. There was then a slight amount of sensation in the legs.

7th.—Difficulty of breathing greatly lessened. He could move his legs a little.

8th.—Evacuations no longer involuntary. Sensation returning in the left arm, and hyperæsthesia of the right diminishing. He could not yet move either of the arms, and the little power of motion he had in the legs gave him pain.

10th.—No pain to-day in moving the legs. He can move the left arm a little.

14th.—Hyperæsthesia rapidly diminishing. He could now move the legs without pain, and was able to move both arms a little.

21st.—Throughout this week he had improved very much. He could move his limbs much more readily, and sensation seemed to have been almost restored to its natural condition. The left arm he could move best: the right but little.

25th.—Still improving. He could now move much more easily, though the right hand not so well as the left.

August 8.—Improving. He could move the legs freely. The right arm was better.

September.—Right arm partially paralysed. He could not use the left leg, but could stand on the right.

October 25.—The condition of the lad was as follows:—He could move all his limbs, but the legs better than the arms. Sensation was perfectly restored; he could walk with ease. There was a difficulty in extending the fingers chiefly in the right hand; if forcibly extended, some pain was felt. He felt perfectly well, except the weakness in his hands and arms. A splint was now worn upon the right hand for a few hours daily.

January 5, 1861.—He was still further improved. There was slight hyperæsthesia in the right arm, and deficiency of power in both hands. Electro-magnetism was ordered to be used.

19th.—Power of motion considerably increased under the use of electro-magnetism. He could almost straighten the fingers.

March 10.—By this time the use of the hands had almost entirely returned, so that he was enabled to leave the Hospital.

In this case there are several interesting symptoms, but they are not sufficiently definite to indicate the precise seat of the injury. Of course it is clear that there was injury to the cervical part of the cord. The right arm had increased *sensitiveness* (not, of course, increased *sensation*), probably from paralysis of the blood-vessels. There is no note as to temperature, so that this supposition cannot be confirmed. In section of one half of the spinal cord we get paralysis of motion of the blood-vessels, consequently more blood, and hence hyperæsthesia, just as an inflamed or congested part is tender to the touch.

GUY'S HOSPITAL.

DISEASE OF THE UPPER PART OF THE CERVICAL REGION OF THE SPINE AFTER RHEUMATIC FEVER.

(Case under the care of Dr. GULL.)

Charles S., aged 12. He was said to have had rheumatic fever three months before admission. His mother states that all his joints were swelled and "set fast." His neck is fixed, the chin being slightly turned to the right shoulder. He is unable to rotate his head, or to nod. Pressure at the upper part of the cervical vertebræ gives pain. There is no evidence of any injury, and the patient persists that it was from the rheumatic fever. On raising himself in bed he puts his hand on the top of his head. The left leg is rigid, but he is able to move it. The left leg is numb. The respiration is principally thoracic, and there is more movement on the right side than on the left. Increased cardiac dulness and a systolic murmur. Enlarged glands in the neck.

He was ordered to have his head supported by sand-bags, and placed in a horizontal position. Two and a-half grains of Dover's powder were given three times a-day.

April 6.—Has recovered the use of his leg.

13th.—States that his left leg has regained its former sensation, there being no longer any numbness or rigidity, and that his neck is not so stiff and painful. Glands have become less swollen.

May 2.—Neck continues to become easier, but glands are still swollen.

20th.—Not quite so well. He is prohibited from getting out of bed at all for the purpose of having it made.

30th.—Has lost all stiffness, and is allowed to walk with his head supported by a stiff collar. Has continued the Dover's powders.

Discharged June 11, cured.

Although there is in this case no certain evidence that the disease followed true rheumatism, there is pretty clear evidence that disease of joints will follow after rheumatic fever, *i.e.*, disease of joints *par excellence*. In one case which the writer saw a little time ago, a girl, aged 20, died, after symptoms of disease of the upper part of the cervical spine, secondarily affecting the cord. She had never had rheumatism, but she had just recovered from what is supposed by some to be a kindred disease, viz., chorea, when symptoms of disease of the spine appeared. A brother, also, at the time of her death, had rheumatic fever, showing that there was a tendency to it in the family. It is believed, however, by some, that chorea may arise from irritation of the spinal cord by enlargement of the odontoid process of the axis. It may be, therefore, said that the symptoms of paralysis of the limbs were due to an aggravation of the local disease, which, in the early stage, gave rise to the chorea. There was no post-mortem to help to settle these points.

It has been observed that chronic disease of joints follows acute rheumatism, or a disease like it, when associated with scarlet fever; but in none, so far as we have seen, has the spine been affected. In Dr. Gull's case it seems pretty clear that the boy had had rheumatic fever, and not merely pains, referred to the extremities, from disease of the spine affecting the cord or the roots of the nerves. Nevertheless, in some cases, pain and swelling occur only in the joints in cases of centric diseases of the nervous system. Pain in the joints is often remarked on, by Dr. Brown-Séquard, in cases of hemiplegia, in which there is no evidence of the rheumatic diathesis. Other evidence, besides the name the patient gives to his former disease, is required, to be certain that he has had real rheumatism, and not merely neuralgic or periosteal, or other so-called rheumatic pains.

J. H. J.

(To be continued.)

ECZEMA OF THE SCALP IN YOUNG CHILDREN—TREATMENT BY MINERAL ACIDS.

HOSPITAL FOR SICK CHILDREN.

(Cases under the care of Dr. DICKINSON.)

Eczema, attacking the head and face of very young children, is a disease almost like strumous ophthalmia in its intractability. Some time ago we attempted, at the Skin Hospital, to ascertain, from grouping cases together, something as to its natural history. The facts obtained from a limited number were chiefly negative. It did not occur more in children looking unhealthy than in others; in fact, some of the children were quite robust. There was in none of them any evidence of syphilis, and nothing to warrant suspicion of it; nor did improper food seem to influence it very much. It is extremely difficult to cure.

At the Hospital for Sick Children, Dr. Dickinson, finding that the secretion is highly alkaline, relies on mineral acids for the treatment of the disease. He gives both the nitric and sulphuric acid, but prefers the latter. We give the two following cases as instances of the benefit of this kind of treatment:

Case 1.—Archibald B., aged sixteen months, was admitted under the care of Dr. Dickinson as an out-patient on August 4. His head was covered with eczema. The secretion was highly alkaline. Four minims of dilute sulphuric, in syrup and water, were ordered to be taken three times a day. Subsequently the dose was increased to eight minims, and occasional aperients were given, and an ointment was used. ℞ Gu. benz. ʒj., adipis ʒvj., zinci oxydi ʒj. On October 2 the eczema was gone, and he was quite well in every respect.

Case 2.—A boy, eleven years of age, was admitted for eczema all over the head. There were some below the ears, from which there was a very strong alkaline secretion. Dr. Dickinson ordered twenty drops of nitric acid three times a-day, and, subsequently, the ammonio-chloride of mercury ointment. Under this treatment he improved. Quinine was added to the acid on May 3. On June 19 he was nearly well. He was not seen again until July 14. He was then quite well, and had been for some time.

HOSPITAL FOR DISEASES OF THE SKIN.

(Cases under the care of Mr. STARTIN.)

We give here also notes of two other cases, under the care of Mr. Startin, at the Hospital for Diseases of the Skin. They, however, are not complete. They will be of use in pointing out the treatment adopted.

Case 3.—A boy, admitted in February, two years and two months old, had had the disease from the age of five months. It began on the cheeks, and then attacked the flexures of the elbows and the knees. It did not affect the axillæ, nor the groins. There were no abdominal symptoms, many and various inquiries having been made on this point.

Inquiries were made as to cerebral symptoms. It was said that he had been "convulsed with his teeth" about one month before the eruption appeared. About a fortnight before admission he had had cough, and some difficulty of breathing. His mother observed that when the eruption was better his breathing was worse. He was then, she said, "almost choked." When admitted to treatment, the eruptions extended all over the face, except to the eyelids and the parts just below the eye. In most of the cases we have observed this region has escaped, even when the rest of the head and face has been covered.

Mr. Startin ordered a mixture containing iodide of potassium and small doses of tartar emetic, and the following ointment:—

℞ Plumbi acetatis ʒj, zinci oxydi ʒj, hydrargyri chloridi ʒss, unguenti hyd. nit. ʒj, adipis ʒvj, olei palmæ ʒv, and a lotion containing zinc.

We have only one further note. We give the case chiefly to help to form a sort of natural history of the disease, and mention the prescriptions in order to show Mr. Startin's method of treating it.

On the next visit Mr. Startin prescribed a mixture containing the bichloride of mercury in doses of $\frac{1}{30}$th of a grain, with very small doses of tincture of opium. The ointment was changed for one of the following composition:—

℞ Hyd. nitrico-oxydi ʒss, hyd. am. chlor. ʒss, adipis ʒxix.

Case 4.—A boy, five years old, had had the disease from the age of twelve months. His head, when admitted in February, was covered by the eruptions, as also the face, except the region about the eye mentioned in the former cases, and there was a similar condition of things in the flexures of the knees and in the groins. His health was good, except a slight cough. The treatment in this case was by bichloride of mercury and an ointment of the following:—

℞ Camphoræ ʒss, glycerine ♏xv, adipis ʒxx. Zinc lotion was also ordered.

This patient's brother, a year younger, had the disease at

the same time, but we have, unfortunately, no notes of his case.

These formulæ may appear rather complex. At the Royal Infirmary for Children, an ointment, called, we believe, unguentum metallorum, is much used in affections of the scalp. This contains lead, zinc, and mercury.

℞ Unguenti plumbi co., unguenti zinci, unguenti hydrargyri nitratis mitius, āā ʒj.

In one case, Case 3, it is noted that the patient was worse in his breathing when the eruption was better. This is not unfrequently observed at this Hospital when chronic bronchitis exists with chronic skin disease. There is no doubt a physiological relation between the skin and mucous membranes. In another case, under the care of Dr. Dickinson, a child four months old, with extensive eczema of the head and face, was cured in about one month. Alteratives, cod-liver oil, and benzoate of zinc ointment, were prescribed. Shortly afterwards, in a few days, the patient was seized with pneumonia and died. No cause could be assigned. It used to be a common opinion, when an extensive eruption was cured, or an old ulcer healed up, that disease, on account of the suppression of the discharge, would attack some other part of the body. It is impossible to form any certain opinions from one case, especially when the patient is so young; but it may serve as a hint to direct attention to the possibility, that the suppression of extensive cutaneous discharges may tend to induce disease of the respiratory organs.

HOSPITAL NOTES.

BRONZING OF THE SKIN IN A PARAPLEGIC PATIENT.

There is in Guy's Hospital, under the care of Dr. Barlow, a case of bronzing of the skin. In this case there is also, either as cause or complication, paraplegia. The man's general vigour does not seem so much below par as is usual in Addison's disease. There is no marked languor nor great depression of spirits. He says he is in good spirits, looks cheerful, and, excepting his paraplegia, complains only of a feeling of sinking at the epigastrium. He has been getting brown for twelve months, and looks like a mulatto. In some parts, especially about the genitals, the coloration is greater than in others. On the thighs are several patches of a deeper colour than the rest. It was here, the man said, that the change in colour first began, and it was then attended by pain, not exactly neuralgic, but "a pricking kind of pain." It is one of the theories held, that disease of the capsules produces bronzing of the skin, amongst other symptoms, because the nervous system of nutritive life, with which these organs are so largely connected, is interfered with. Yet, although there are many diseases in which it is clear that some disturbance of the nervous system has produced changes of nutrition, there are not many in which it has produced deposition of pigment. There is, however, a case,—a woman in Mary Ward,—also under the care of Dr. Gull, in which there is darkness of the skin and diminished sensation. This is a case of lepra anæsthetica, differing from Addison's disease in all respects, except that there is deposit of pigment. The loss of sensation is considerable. In the *Indian Annals of Medical Science* there is recorded a case of anæsthesia of the fifth nerve, in which there was absorption of pigment in the region supplied by the frontal branch. As the man recovered sensibility in this part the natural colour was restored. These cases are merely mentioned to show that changes in the deposition of pigment are sometimes associated with defective nervous influence. They may throw some light on the mechanism, as it were, of the production of this single symptom of alteration of colour of the skin, although, as constitutional diseases, they are totally different. We have, however, notes of several cases of anæsthesia of the fifth nerve, in which there had been changes of nutrition in the eye, and yet no alteration of colour in the other parts supplied by the nerve. In neither the bronzing, if it depend directly on nervous influence, nor in the ulceration of the cornea, is it probably due to lesion of the sensitive nerves, but probably to affection of the motor nerves accompanying them, the branches of the sympathetic supplying the blood-vessels. We may remark, that hypochondriacal people are often very dark, as if they had more pigment than usual in their skin. The defective action of the liver is, however, generally considered to explain this, although there are very often no marked liver symptoms, and no yellowness of the skin, nor even of the conjunctiva.

In reference to the paraplegia in this case, we may refer to a paper, by Dr. Wilks, in the last Number of *Guy's Hospital Reports*. He has collected all the cases of Addison's disease which have come under his notice at Guy's Hospital. They are twenty-five in number; and of these, three had caries of the spine. He says, speaking of the case we are relating, as well as of those in his series,—"In these cases the inference is natural, that the two affections are associated, since the caries of the spine has always been in the lower dorsal or lumbar vertebræ, and in immediate contact with the supra-renal capsules, and in all probability the spine became affected first and the supra-renal organs afterwards."

As a contrast to this case, in which a white man has become dark, there is, in the next bed, a black man who is becoming white. The whitening is only, however, in patches. There is a small one at the eyebrow, and one, the size of half the hand, on the chest. The colour has changed during the last twelve months. It is curious, too, that he has no symptoms of organic disease, except a feeling of exhaustion and languor, like that generally attending Addison's disease.

REMOVAL OF A VERY LARGE SEBACEOUS CYST FROM THE FOREHEAD OF AN OLD MAN.

A man, 72 years of age, applied at Guy's Hospital for relief from a large tumour growing from the middle of the forehead. It had been growing for thirty years, but the patient had suffered no inconvenience from it except the deformity. Its walls were very thin at one point, and the fact that it was on the point of bursting induced the patient to seek advice. The tumour was twelve inches in circumference. It was diagnosed as a sebaceous cyst, and removed by Mr. Holmested, the House-Surgeon. Its contents were fluid, and of a dirty green colour. The wall of the cyst was thick, and coated on the inside with thick sebaceous matter. The two flaps of skin taken from the side of the tumour did not unite by first intention, but by the end of the month it had quite healed, and he left the Hospital. A little redness appeared around the part, and he had shivering a few days after its removal; but, by the application of poultices, good diet, and a little wine, he did well, and all traces of erysipelas left him. This patient had been subject to epileptic fits before the appearance of the tumour. He had had none since.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 1.

HOW TO LEARN THE BONES.

In osteology, as well as in every other branch of natural science, there are various modes of teaching. It may safely be asserted that the mode hitherto prevalent in English Schools of Anatomy is unworthy the present state of anatomical science; that it tends to disgust the student; and that it deprives him of the pleasure and instruction which he ought, under a better system, to obtain; just glancing, as we pass, at the fact, that "anatomy," instead of being a science taking cognisance of all organised forms, was restricted to signify "human anatomy," or "anthropotomy;" and that the

anatomy of all other animals was huddled together under the term "comparative," just as the Jews and Greeks treated all besides themselves as Gentiles and Barbarians. The first mode of teaching the human bones was the merely empirical. The naked facts were taught, and nothing more.

In the pages of our oldest anatomists all physiological consideration of the bones, as subservient to any given functions, and all morphological consideration, as denoting the plan on which they are constructed, were carefully eliminated from the anatomy for students. The fathers of anthropotomy merely regarded a bone as they found it; it was long or short, square or round; it was comparable to living objects, or parts of them. Articles of furniture, household utensils, agricultural implements, the letters of the alphabet, or the desire to perpetuate personal names, crows'-beaks, bedposts, swords, pens, cups, boats, hammers, ploughshares, furnished epithets easy of application, though never consonant with the nature of the structures, and always harsh and difficult to be retained in the memory. The development of bones was generally neglected; their abnormities were unrecorded; their homologies, general, special, and serial, were as yet undreamed of, and, generally, the accurate attachment of the muscles acting on them was undemonstrated. Had such a system continued, the bones of every animal must have had a separate nomenclature. It was impossible that such a state of things could long continue. Other teachers arose, actuated by the principle, that everything in nature was created for the best, and that they knew what was the best. These men brought teleological, utilitarian, or functional considerations prominently forward, and urged frequently and energetically the doctrine of the "special" adaptation of all known structures. This school culminated in the teachings of Sir Charles Bell. Meanwhile, the progress of thought in Germany and France, aided by the efforts of some teachers of the Edinburgh school, Barclay and Knox, whose *vivâ voce* expositions antedated their reputation by half a century, caused English anatomists at last to perceive that something was really to be learned from a bone, of higher import than its mechanical nature or its functional signification; and that comparisons of the bony structure of man, extending through his entire organism, and throughout the known field of comparative anatomy, were capable of demonstrating the fact, that man's structure was composed on the same common pattern as that of the inferior animals, and that it was itself made up of a series of successive pieces or answerable segments,—modifications of trunk vertebræ.

This, the *philosophical*, mode of regarding anatomical facts is the easiest and the most delightful foundation on which anthropotomy can be based. It is the only safe road by which osteologists can arrive at a complete and comprehensive view of the true relations of the human skeleton. It is absolutely indispensable that the student who hopes to excel in osteology should attain at least a competent knowledge of the plan on which man's framework is constructed. The science has also rapidly assumed its position amongst other kindred anatomical studies. No longer is the murmur of ridicule, which daunted Duméril, when developing the vertebral theory before the *Institut*, tolerated in modern science: no longer does the crass declaration of Saint-Agy, "Pour moi, une machoire supérieure est une machoire supérieure, et un bras un bras," represent the thoughts of any scientific man. Osteology, nevertheless, in too many of our schools, is demonstrated as badly as geography is taught in our general education.

With a few eminent exceptions, amongst which we must especially except the anatomical teachers at University College, and some attempts by Holmes Coote and Holden, at St. Bartholomew's, many of our Lecturers neglect to inculcate the first principles of a healthy and thorough knowledge of the bones. And, not content with refraining from teaching, some sneer at "transcendentalism," and attempt to hinder the labours of others, by depreciating them on the score of their unpractical nature, regarding them merely as pleasant efforts of the imagination, ever prone to deductive flights. In words which have been attributed to a late President of the College of Surgeons, Sir B. Brodie—"Men, disqualified for appreciating such points of correspondence as those which homology demonstrates between the basilar process of the occipital bone and the body of a trunk-vertebra, are apt to take credit to themselves for their power of restraining the imagination." They are incapable of seeing—*e.g.*, the serial relation between the hyoid, mandibular, and maxillary arches of a bird. The correspondence of the bones in the second row of man's *carpus* and *tarsus* they pass by undistinguished. But the fact is speedily becoming patent to the whole Medical Profession, as it has long been accepted by zoologists, that the Lecturer who disdains to inculcate, or the student who neglects to become acquainted with, at least, some of the primary principles affecting the common plan or pattern on which man's skeleton, like that of animals, is based, abuses the responsibility which severally attaches to them to compass, with the utmost of their power, the best, the highest, and most complete knowledge of every department of physical science. We are most anxious to impress upon their minds, that the "text-book" school of anatomy is not sufficient. For example, to "get up" the anatomy of the *fibula*, after gravely devoting space to the demonstration of the fact, that it is on the outer side of the leg, that it is smaller than the *tibia*, that it presents for examination a shaft and two extremities, it is not sufficient to note the fact, that there is an apparently insignificant pointed eminence which projects upwards from the posterior part of the head, giving attachment to the short external lateral ligament of the knee, or, as the most complete anatomical compendium in the British language vaguely expresses it, "to ligaments." Such knowledge as this is mechanically useful; it may help the student a little in the descriptive anatomy of the leg; but to the philosophical enquirer who wishes to know more, and who seeks to unravel the mysterious relations which man's structure bears to that of the inferior animals, will not be satisfied with such a meagre definition of the *processus styloideus fibulæ*. He will compare the structure of man's posterior with his anterior extremity—the hind with the fore limb; he will see that the styloid process is serially homologous with the "olecranon" of the *ulna*. Nor will he rest here: guided by the light of previous anatomists, he will trace out the relations of the "styloid" in the lower animals; he will see it in the *Ornithorhynchus* reaching half way up the back of the *femur*, expanded at its end like the olecranon, but still a component part of the *fibula*; until in the Marsupials, especially in the wombat, it is distinctly developed as a separate osseous element, the "*fabella*" freely suspended above and behind the fibula. He will often recognise, in the occasional abnormities which present themselves in man, the retention of those characters which he once bore in his fœtal condition, *e.g.*, in the interparietal bone of some men, the homologue of the separate bone of the Rodents and Ruminants, and of which the separate ossific centres were distinct in the human fœtus; or, again, developments which typify the retention of those more generalised structures which man shares with the inferior animals, as the "par-occipital" tubercle on the jugular eminence, the rudiment of the vertebral transverse process, which in many mammalia forms a so-called "paramastoid" spine, easily recognised in the hog's skull. The student may take the "hyoid" bone of man, and after recognising the "body" as the basihyal, the "greater cornu" as the "thyrohyal," and the "lesser cornu" as the "ceratohyal," he will trace out their homologies in the inferior animals. The "basihyal" he will perceive is the forepart of the hyoid in man, the mammal, and the reptile; but he will see it complicated and obscured by the superaddition in the bird and fish of a distal element, the "glosso-hyal," and by one extending laterally backwards

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and downwards, the "urohyal;" whilst in both fish and reptile the "stylohyal" and "epihyal" form the distal end of that hæmal arch which in the former supports the branchiostegal rays or gill-covers of the cold-blooded water-breather. He will recognise in the unossified "epihyal" of man, represented by the styloid ligament, the homologue of the small ossicle in the mammal and the crocodile, and the triangular bone which supports the enormously-developed "ceratohyal" of the fish. His perception of the real significance of the stylohyal in man will have been obscured by its being confluent with the temporal; but if he sees it, as in the fish, freely suspended, and forming one of a series with the other hyoid bones, he will at once recognise it as the pleurapophysis of the parietal segment. He will be taught that every process, every elevation, ridge, depression, or asperity, on every bone, apart from the function which it may perform, which function may or may not be known or demonstrable by modern anthropotomy, has a higher significance; and this hidden *bedeutung* will be revealed to the diligent labourer who seeks by due comparison to discover it.

But it may be said, "What is the use of it? The knowledge of the homology of the styloid process will not aid the Surgeon to excise the head of the fibula more accurately, nor, in fact, is it of any practical value." We admit this objection; but it may be replied, "Is the practical utilitarian aspect that which is alone to attract attention? Is it not better that the Surgeon who learns the bones should understand thoroughly the totality of their signification?" We would call attention to the common descriptive nomenclature of the "articular," "accessory," "oblique," and "spinous" processes of the vertebra, and contrast it with the systematic definitions enjoined by the morphologists. How many students, misled by the terms of the school of Sömmering, would imagine that the "transverse" processes of the cervical and the dorsal series were correlative organs? They, however, who watch the *pleurapophysis* in man will see in the cervical series it is confluent with the *dia* and *par-apophyses;* in the dorsal series, it is the rib, attached to the transverse, or diapophysis, while the parapophysis is the articular surface to receive its head; and in the lumbar series, it is confluent with the end of the transverse, or diapophysis, the parapophysis being suppressed.

As regards the mnemonic difficulty, we have only to remind our readers of the words of Dr. Latham, "Let those who distrust their remembrance once observe closely, and then forget if they can."

One of the strongest inducements to systematic osteological study is the consideration that the prospect of great discoveries is opened to the learner to lead him onwards in his researches. The youngest Medical student who examines the most battered set of churchyard bones, may reflect that it may be his good fortune to demonstrate the significance of many a structure respecting which we are now completely in the dark. Let him rest assured that his only method of safe guidance rests in the recognition of some of the great principles of morphological anatomy. There are many systems and teachers from which to choose, even in our own country. Whether we accept the vertebral theory of Owen in its full entirety, or whether we coincide with any of the amendments bearing the names of Goodsir, Humphry, Huxley, Bertrand, Melvill, Maclise, Macdonald, or Grant, the success of our attempts at a satisfactory adjustment of existing discrepancies will ultimately decide.

With respect to the means which are at the student's disposal for daily and systematic comparison of the skulls and skeletons of man with those of the inferior animals, the Hunterian Museum affords unexampled facilities for the resident in London, and local Museums are speedily being opened in various parts of the country. But the student who works in his solitary closet, where public collections are not easily accessible, need not despair of attaining a competent knowledge of comparative osteology. Skulls or skeletons of the fish, the reptile, the bird, or the mammal, are easily to be procured. The first, especially, should be ever on the student's table,—if disarticulated by himself so much the better; and he should diligently trace every bone in the human skull to its ichthyic homologue. Such a careful investigation will have a much higher value than that of a mere mental discipline: it will afford him, in a few hours' work, a more philosophical view of comparative osteology than even its founder, the great Cuvier, enjoyed.

THE WEEK.

FEVER AND FAMINE.

Now is the time for the English people to show whether they choose, by a wise prodigality, to do an act of mercy, which will relieve them from a wide-spread and appalling danger. During the warm weather, as our readers have learned from the letters of our Liverpool correspondent, spite of the distress, the health of the manufacturing districts was kept up even to a point above the average. Now, the tale is very different. Destitution, cold, crowding, fever, follow one another by a fatal necessity. Respecting the numbers of destitute persons, we have but too accurate information from the report of Mr. H. B. Farnall, the Special Poor Law Commissioner to the Manchester Relief Committee, published in the *Times* of October 28:—

"My tabular report for this week, on 24 unions in the cotton manufacturing districts, shows you that there is an increase in the number of persons receiving parochial relief, as compared with the number so relieved last week, of 9376 persons.

"There are now 186,219 persons receiving parochial relief in the unions adverted to; in the corresponding week of last year, 43,157 were so relieved; there is, therefore, an increase of 143,062 persons in the receipt of parochial relief, or 331·5 per cent.

"Of the above 186,219 persons, 26,248 are able-bodied men.

"The total weekly cost of out-door relief is now £11,626 10s. 9d.; in the corresponding week of last year it was £2185 17s.; there is, therefore, an increase of £9440 13s. 9d., or 431·9 per cent.

"The average per-centage of pauperism on the population of those unions is now 9·7 per cent.; in the corresponding week of last year it was 2·2 per cent.

"The average amount of out-door relief per head per week in these unions is now 1s. 4d., and the lowest is 1s. 0½d., the highest 1s. 8¼d.

"On the 21st I reported to you that, during the six preceding weeks, the increase of persons in the receipt of parochial relief in the above union was 35,668 persons. This seventh report gives an additional increase of 9736 persons, so that, in seven consecutive weeks, 45,404 persons have become paupers in these unions.

"I am enabled to state that 47 local committees, formed in the cotton manufacturing districts for the distribution of charitable aid, were, at the date of their reports to me, relieving 174,317 persons; but since the reports were dated distress has increased, and a few other local committees have been formed, so that I have reason to believe these local committees are now aiding about 191,300 persons, and that rather more than one-third of those 191,300 person are at the same time relieved by the guardians of the poor."

Probably, half a million of people will soon be destitute. To furnish them with the bare necessaries of life, will cost, at the rate of 2s. 6d. per week,—£62,500 per week. Half-a-crown a-week is the lowest sum on which anything like health can be maintained. It is the estimate of the weekly cost of a child in the poor hovels of Dorsetshire. It will be safer and cheaper to preserve health by a liberal outlay at first, than to wait till fever steps in, and then run to frantic and costly efforts to heal the sick. The way to produce the worst kind of putrid typhus is this,—starve large masses of people, let them get rid of their clothes, be unable to get fuel, and huddle themselves together in close rooms in order to keep out the cold. The recipe is infallible, and the records of Preston show that typhus is beginning its ravages. The

monotonous diet of meal is also beginning to cause diarrhœa. Surely, in a national emergency like this, the relief needed ought to come from the pockets of the nation at large. If provided from public taxation, everybody pays. As it is, the liberal tax themselves, and the stingy escape.

TRIAL FOR MALPRAXIS.

At the Enniscorthy Quarter Sessions last week, a man named Kenny brought an action to recover £40 damages, alleged to have been sustained by plaintiff, on account of permanent lameness caused by negligent or unskilful treatment of a dislocated hip-joint, whilst under treatment with Dr. O'Rourke, Medical Officer of the Enniscorthy Workhouse Infirmary. The plaintiff's evidence was as follows:—

"On November 22, 1860, I fell from a plank, whilst carrying a twenty-stone bag, which inflicted the injury, which brought me under Dr. O'Rourke's care; I was taken to Dr. O'Rourke, to the Hospital, in about half-an-hour. Dr. Sheridan was also there. Dr. O'Rourke pushed the leg up and down several times, and asked me did I hear a crack. I replied no. I asked him did he hear it, but he made no answer. He and the nurse then said the leg was a little short. I said, 'Put it in its right place, and it will not be short;' he said it was always short; I said it was not; the nurse said it is only a queer way of walking I had; he did not say whether the leg was in or not. On November 31, Dr. O'Rourke examined me; I complained to him of the pain in my leg, it exceeded all; he ordered the nurse to stupe the leg with boiling water; this was continued for a fortnight, during which time Dr. O'Rourke examined it every day; after the fortnight's stuping there were three inches of flesh fell off the leg; when I complained to Dr. O'Rourke about my leg, he would say, 'Content yourself, you will be right enough shortly;' he told me all along, that he thought my hip-joint was in, and that I was all right; after about eight weeks he put me up against a wall, and shot up my leg; I bawled, and he shook his head; when I afterwards complained to him of the pain, he said it was rheumatism I had in my knee; I never afterwards complained to him, I was so *sharuse;* after about eleven weeks, I went to the County Infirmary, under Dr. Boxwell.

"Dr. O'Rourke sworn—Is Medical Officer of Workhouse Infirmary. On the day Kenny came to the Infirmary I reduced the dislocation. Shortly afterwards Dr. Sheridan had his hand on the hip-joint, but as soon as the leg was turned down the bone passed out. I again reduced the dislocation, and from the facility with which the bone passed in and out, we decided there was a fracture of the acetabulum. If it was a simple dislocation it would have remained in its position when reduced.

"Mr. Corcoron (defendant's attorney): You appear to have this story well-prepared.

"Witness: It is easy to speak the truth; but I hope, Mr. Corcoran, you won't rise your bristles on me, for from the state of my nerves I am not able to bear them?

"Cross-examination continued: The morning was not frosty when the accident happened; the rolling-bone was shot out of the socket; knew this before travelling to Dublin; knew it the moment the accident happened, that is, knew the accident and the nature of it; swears positively the joint was never put in; from the time of entering the Infirmary up to this moment it was never put in, nor never believed the Doctor that it was in, for I never heard it crack.

"Mr. Corcoran: Are you Medical man enough to know that in some cases you will not hear it crack?

"Witness: We are all supposed to know that it cracks when it goes in; but, of course, I am not a Surgical man.

"Cross-examination continued: Dr. O'Rourke sometimes came into the Infirmary and did not look at me; about three weeks intervened between my leaving the Workhouse Infirmary and entering the County Infirmary; I left on Dr. O'Rourke's discharge; remained under Drs. Boxwell and Creane, in the County Infirmary, for about three weeks; they gave me chloroform, and put me in pulleys; went then to a bone-setter at Castlebridge, but he knew nothing about me. (The bone-setter did nothing for him) Continued: the bone-setter put a charge to me, and put a case on me made of leather and zine, which remained on about two months; he told me the bone was knitting; about three weeks after I left the bone-setter I went to Dr. O'Rourke, who told me, if I would allow him to take off the yoke, he would put me under a proper course of treatment; never walked about more than two steps without two sticks; went to Dublin in the following summer; the Doctors there did not put me in pulleys.

"Dr. Boxwell was then called. He made application to his Worship to order his expenses, two guineas, to be paid.

"His Worship considered the charge moderate, as the Doctor's time was not his own,—it belonged to his patients; and, having travelled fourteen miles, and perhaps having to pay a man in his place, it was not too much.

"The plaintiff offered one guinea, but Dr. Boxwell refused and retired. Dr. Goodall refused being examined under the same circumstances.

"Dr. Cranfield was then sworn and examined: Is a Surgeon; saw plaintiff during the time he was under the quack; cannot positively swear what was the nature of the accident, for the leather bandage was on him; it was an unreduced dislocation when I saw him; cannot say that any part of the acetabulum was broken; if that was broken it would cease to be a dislocation of the hip-joint. It is the opinion of the Medical world, that if the edge of the acetabulum is broken it is most difficult to manage it."

The Jury immediately found a verdict for Dr. O'Rourke. Amongst the points of interest in this case may be mentioned Dr. O'Rourke's good sense in giving the patient the benefit of a consultation with Dr. Sheridan; and the fact, that Drs. Boxwell and Goodall refused to give evidence until adequately paid. They thus saved themselves from a disagreeable task, and showed the fallacy of the persons who pretend that they are compelled to give scientific evidence against their brethren.

MEETING OF THE HEREFORD MEDICAL ASSOCIATION.

The Herefordshire Medical Association held its fourth annual meeting at the Hereford General Infirmary, on October 7; Dr. Bleeck Lye in the chair. The following gentlemen were appointed Officers and Members of the Committee for the ensuing year:—President, Dr. Bleeck Lye; Vice-President, Dr. Gilliland. Committee: Hereford, Dr. Bull, Messrs. Beavan, Cam, and Vevers; Abergavenny, E. Y. Steele, Esq.; Coleford, C. H. Trotter, Esq.; Ledbury, M. A. Wood, Esq.; Madley, J. E. Smith, Esq.; Bromyard, E. W. Howey, Esq.; Kington, Dr. Davies; Leominster, W. G. Hyde, Esq.; Ross, Dr. Maclaverty; Weobly, C. Neate, Esq. Treasurer, G. B. Hanbury, Esq. G. Morris, Esq., Secretary *pro tem.* The following resolution was ordered to be signed by the chairman of the meeting, and forwarded to the General Medical Council:—

"In the opinion of this Association it is very undesirable to alter the present weights used in Medicine, unless for the purpose of introducing a decimal system."

A copy of a handbill that had been published in Ledbury, and forwarded for the consideration of the meeting, was read; whereupon the following resolution was passed:—

"That this Association strongly disapprove of Medical men publishing scales of charges, or otherwise advertising for practice, the more particularly so, when done for private motives under the guise of charity."

Messrs. James and Boyce, from Leominster, having laid before the meeting a statement regarding the conduct of the curate of that town in practising Medicine to the injury of the public, it was proposed by J. Griffith Morris, and seconded by Dr. Steele, Abergavenny,—

"That the Committee collect information regarding the irregular proceedings of the Rev. Hugh Reed at Leominster, and adopt such a course in reference thereto as may appear most desirable."

Charles Griffiths, Esq., Ross, at the invitation of the Committee, attended the meeting to explain his "Outline of a Plan for the Suppression of Empiricism."

PROGRESS OF THE CHINCHONA EXPERIMENT IN INDIA.

The experiment of introducing quinine-yielding *Chinchona* trees into India continues to progress most favourably. By

the latest accounts, dated in the beginning of last September, the number of *Chinchona* plants on the Neilgherry hills was as follows :—

Species.		Number.
C. Succirubra	(yielding "red bark" of commerce)	30,150
C. Calisaya	(,, "yellow bark" ,,)	1,050
C. Condaminea	(,, "crown bark" ,,)	20,307
C. Lancifolia	(,, "Carthagena bark")	1
C. Nitida		8,500
C. Micrantha		7,400
Species without name	(,, "grey bark" ,,)	2,440
C. Peruviana		2,295
C. Pahudiana		425
	Total number of plants	72,568

Of these, 13,700 plants are placed out permanently in the plantations, and, although only recently transplanted, are in a very promising condition. The number of plants placed out in the nurseries in the open air, and in the hardening-off frames, is about 18,076, all in the finest possible state of health. The number of small plants under glass, including those used for the production of wood for propagation, is about 40,792. Extensive clearings are now being prepared for *Cinchona* plantations on the Neilgherry hills. The Denison plantations, and the Markham plantation, both at Neddiwuttum, will contain 410 acres; the Wood plantation, near Pycarrah, a splendid piece of land, well watered, and protected from the west winds, will cover 250 acres; and another plantation has been formed, at a higher elevation, called Dodabetta. Private individuals are anxious to undertake the cultivation, and 22,000 plants have already been bespoken; so that the quinine-yielding trees will soon be widely spread over the hills of the Madras Presidency. Meanwhile, they have not been idle in Bengal. Dr. Anderson, who has charge of the *Cinchona* cultivation in that Presidency, conveyed a stock of plants to Darjeeling early last May, and on the 26th of last July he had 246 plants there, of valuable species. In Ceylon, also, they are rapidly increasing their stock of *Chinchona* plants. In the first week in November, Mr. Markham's work on the whole subject will be published by Murray.

COUNTY COURT JUSTICE.

In the Marylebone County Court, it has been decided that a Surgeon can recover his charges from a master for attendance on a domestic servant, but only at the rate at which the servant would have paid, according to her means and rank of life, if she had herself sent for the Surgeon. Mr. Obrè, a respectable Surgeon, sued Mr. Chisholm for two guineas. Mr. Chisholm's servant was suddenly taken in labour, and Mr. Obrè attended her. The patient swore that she had had seven children, and paid one guinea to the Accoucheur on each occasion; so the Court ruled that Mr. Obrè must be content with one guinea now. A curious kind of ruling, if made of universal application. Fancy a man, in sudden need of clothes, sending to Stulz for a suit, and then pleading that he had never paid more at Rag-fair than 30s. for a complete rig-out!

THE CIRENCESTER MURDER.

A young man, named William Mealing, has been committed to Gloucester Gaol on a charge of wilful murder. The murdered person was a girl, named Sarah Moss, with whom he cohabited, and to whom he was about to be married. Both lived at Rendcombe, near Cirencester. The Medical reader will notice with interest the allegations made by the prisoner to his parents, that he had been suffering from pains in the head, with mental confusion or nervousness; they will speculate, too, on the probable results of blood-letting, if the patient had been bled as he desired. They will notice that Dr. Larke thought, before the murder, that the prisoner's mind was affected. They will notice, too, the absence of adequate motive for the crime, except the few very significant words uttered by the prisoner's father. They will see, too, what little connection there can be between certain religious forms and morality, when they find the prisoner's mother telling her son to pray to the Lord, and then letting him go to sleep with the unhappy woman to whom he was to be married. The following is an abridgment of the evidence :—

"On the morning of Thursday, the 23rd, about two a.m., the prisoner knocked at the door of Timothy Tarrant, of Rendcombe, blacksmith and parish constable. On opening the door (says Tarrant), I saw the prisoner standing there all over blood, and without a hat or coat. 'I am come,' said he, 'for you to take me up and hang me, for I have been and murdered the woman at the place where I have been lodging.' I got him in-doors, and made him sit down. I went down to the Kennels to see what was the matter. When I got there I opened the door. The house was all in darkness. I heard a child crying. The door was not fastened. I went to Joseph Robins's house. He came out, and we went upstairs together into the deceased's room, and found her lying on the bed, with her throat cut. There was a razor lying on the bed, which I took and put in my pocket. Sarah was quite dead, but not cold. While I was down at the Kennels his father and mother had taken the prisoner home. I took him into custody. I said, 'Have you any objection, William, to have these handcuffs put on?' He said 'No;' and I put them on. He said, 'Trouble has brought this on, and I am sorry for it.' He went down on his knees and prayed. The child of the deceased, three years old, was lying on a little bed by the side. There were bloody marks on the banisters of the stairs, and on the walls, where the prisoner had put his hands on going down. I said, 'How came you to do it?' He said they had a few words a few days ago, and he was obliged to do it. He began telling me what they quarrelled about, when a person came into my house, and the prisoner would not say any more about it. The prisoner and Sarah Moss were about to be married.

"Mary Mealing, the prisoner's mother, deposed: My son has been lodging at Moss's for nearly twelve months. In the house where he lodged lived Richard Moss, Sarah Moss, and a child of Sarah's. The child is three years old. On Thursday last I saw the prisoner in the morning. He was suffering from pains in his head, and was not sensible at times. On Saturday week I went down to the Kennels to see how he was, and he said he would come to his own home with me. He came back with me. He said I knew all about his complaint, as I suffered from a complaint of the nerves myself. When he got to our house he said, 'Thank God, I am got to my own home; I will not go from it any more.' He stayed with me until Thursday last. I saw him every nay. My son was engaged to be married to Sarah Moss; she came to see him every day in the week except Wednesday. On Thursday morning he was very bad in his head; he said many times to me, 'I am afraid it will drive me out of my mind, mother.' When he said that, I said, 'I hope not, my child; pray to the Lord to place no more upon you than you are able to bear.' I also said, 'When you go down to the Kennels again, bring up your money, and go to Dr. Larke, and pay him, and ask him to do what he can for you.' A few days before Saturday last I was sent for in the early part of the night, between midnight and three o'clock in the morning. I went to the Kennels, and found the prisoner very ill. Sarah Moss was with him, and more besides. I took hold of his hands, and they were very cold. There was no dispute between William and Sarah about money. They were good friends. He has never complained to me of her conduct. He said to me when he was ill, 'If anything happens to me, be sure and be kind to Sarah; I love her as my own heart.' He then thought he was dying.

"Richard Daniel Larke deposed: I am a Surgeon, living at Rendcombe. On Thursday morning, about half-past two o'clock, I was called to attend at the house of Richard Moss. I went directly, and found in a bedroom upstairs the body of a woman lying on the bed, on her left side, with her face towards the middle of the bed. She had a wound in the throat, which divided the muscles and vessels and the trachea, and extended to the vertebræ—to the bone. The upper part of the body was cold, but the legs and thighs were warm. There is no doubt that death was caused by the wound.

There were a few marks indicating a struggle ; the hands and arms were slightly bloody. I think that the murder was committed from behind, while the woman was asleep. The woman was pregnant. I had known the prisoner for some little time before, and had professionally known him since October 1. I last saw him professionally at twilight the night before the murder. I have altogether seen him three times. He first came into the Surgery, and he was then suffering, as I imagined, from a common cold. He got better, but did not return to work, I believe. About October 12, I was sent for to him, and the messenger said if I did not make haste he would be dead. I found the prisoner dressed, and sitting down stairs, and he complained to me of a violent pain in the head. On the 16th inst. I saw the prisoner. I thought he was suffering from mental disorder, and not from bodily illness. I believe he came to me four or five years ago, and requested me to bleed him, saying that his head was bad.

"John Mealing, the father of the prisoner, said :—My son said, after the death of the deceased, that *some woman had been telling Sarah that he acted his illness to get out of being married to her, and she had told him so.* When he used to work with me, for Mr. Cooke, of Rapsgate, I have known him lay down half the day, like anybody fainting, and unable to work. He had an attack in his head once when he was a little boy.

"The prisoner, who sat with his face laid in his hands during the whole examination, declined to put any question to either of the witnesses, observing that he could not say anything, for his head was so bad, and that was the cause of all this.

"The prisoner was fully committed for trial on the charge of 'Wilful Murder.'

"During his detention in Leicester police-station, he behaved in a very eccentric manner. At times he knelt down and prayed most earnestly, and at others he laughed, and made light of his position. On Saturday morning he said his heart was broken, and was coming out at his side."

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

MINUTES OF MEETING, TUESDAY, OCTOBER, 28, 1862.

32, Soho-square, London, W.

Mr. Green, President, took the Chair at One o'clock, p.m.

Present—

Dr. Burrows	Dr. A. Smith
Mr. Arnott	Mr. Hargrave
Mr. Cooper	Dr. Leet
Dr. Acland	Dr. Apjohn
Dr. Bond	Dr. Corrigan
Dr. Embleton	Sir Charles Hastings
Dr. Storrar	Dr. Sharpey
Dr. Alexander Wood	Mr. Lawrence
Dr. Andrew Wood	Mr. Teale
Mr. Watt	Dr. Christison
Mr. Syme	Dr. Stokes
Dr. Thomson	

Dr. Francis Hawkins, Registrar.

The Minutes of the last Meeting were read and confirmed.

The President made a statement of the object of this Meeting of the General Medical Council.

Read—The resolutions passed by the Executive Committee on July 11, 1862.—(*Vide* Minutes Executive Committee, No. 34, p. 4.)

"That, while the Executive Committee earnestly desires to comply with the instructions of the General Medical Council, in reference to the publication of the British Pharmacopœia, there nevertheless appear to be grave reasons for first considering more maturely the expediency of introducing, under the authority of the Medical Council, the proposed changes of the weights used in Pharmacy throughout the Empire.

"That it be accordingly proposed to the Pharmacopœia Committee to re-consider the matter; and that it be suggested that the Astronomer Royal, Sir John Herschel, and Professor Miller, of Cambridge, Members of the Committee appointed to superintend the construction of the present national standards, should be invited by the President to favour the Committee with their opinions on the subject."

Resolutions passed by the Royal College of Physicians, London, on July 12, 1862.—(*Vide* Minutes Executive Committee, No. 35, p. 4.):

1. "It having come to the knowledge of this College that, in the new Pharmacopœia intended for publication, under the authority of the General Medical Council, it has been contemplated to introduce a new grain, differing from the standard grain weight of the country, the College is of opinion that, however desirable it may be to substitute the avoirdupois pound for the troy pound, it is not desirable to introduce a new grain differing from the standard grain, which has been so long in general use, and is established by Act of Parliament."

2. "That Dr. Burrows, as Representative of the College in the General Medical Council, be requested to communicate the resolution to the Executive Committee of the Medical Council."

(Signed) Henry A. Pitman, Registrar.

A letter addressed to Dr. Garrod, Secretary of the Pharmacopœia Committee, by Dr. Christison.—(*Vide* Minutes Executive Committee, No. 36, pp. 2 *et seq.*)

"To Dr. Garrod, Secretary of the Pharmacopœia Committee.

"Edinburgh, July 18, 1862.

"Sir —There has been laid this day before the Edinburgh branch of the Committee for preparing and publishing the *British Pharmacopœia*, resolutions of the 11th instant, by the Executive Committee of the General Medical Council, relative to the changes proposed by the Pharmacopœia Committee in the weights of pharmacy, The Edinburgh Sub Committee instruct me to transmit to you, as Secretary of the whole Committee, the views which have occurred to them on this subject.

"The Sub-Committee submit, with great deference, that the Executive Committee of the Council appear to them to have gone beyond their province in entertaining criticisms as to the construction of the Pharmacopœia which has been prepared by the Pharmacopœia Committee, and adopted as the British Pharmacopœia by resolution of the General Council itself of May 21, 1862. The duty of the Executive Committee, as this Sub-Committee understands the powers delegated by the Minute of Council of the same date, is limited to taking all such steps as may be necessary for the publication of the British Pharmacopœia, and does not extend to controlling the Pharmacopœia Committee in the construction of it, or to altering the Pharmacopœia, which has been sanctioned by the General Council. Had the Executive Committee, therefore, simply remitted the letters of Dr. Paget and Mr. De Morgan to the Pharmacopœia Committee, they would have done, as this Sub-Committee think, all they could correctly do with the subject of these letters, and such an answer would have been given by the Pharmacopœia Committee as would have probably been satisfactory to all parties.

"With this preface, the Sub-Committee beg to remind their brethren of the conjunct Committee that the proposed change in the Pharmacopœia weights was carefully considered by three Sub-Committees, each consisting of five Members, at least, and in each of which the three branches of Medicine—Physic, Surgery, and Pharmacy—were represented; that it was subsequently considered at a conference of three delegates from each Sub-Committee in May, 1859; that at first prejudices were naturally found to exist against the change; that the same objections now urged by Dr. Paget were at that time brought forward, with others at least as important; but that, in the end, all the Members of the conference agreed that the change should be adopted.

"In the Pharmacopœia Committee there was no want of Members amply competent to deal with the scientific, no less than the practical, bearings of the subject, and aware of the importance of not losing sight of science while dealing with practice. This Sub-Committee, therefore, do not see the necessity or the propriety of appealing to the opinions of the scientific gentlemen whom the Executive Committee suggest as persons to whom the subject should be referred. The Sub-Committee have, one and all, the highest respect for the eminent men of science who have been named, but they submit, that, as to a question of mingled science and practice, and one much more of practice than of science, the Pharmacopœia Committee do not need to refer to any scientific men ; and that if they are not themselves more competent to settle such a question than any mere scientific committee, they ought never to have been appointed, as assuredly they never would have consented, to undertake the duty entrusted to them.

"The objectors to the proposed changes in Pharmaceutic weights appear to have lost sight of the fact, that the Pharmacopœia Committee had to deal—1. With an already existing serious, and practically inconvenient, deviation of the weights and measures of Pharmacy from those of the Imperial Standard; 2. With a difference between the pharmaceutic weights of the three existing Pharmacopœias of the United Kingdom ; 3. With a want of conformity between the weights and the measures in each of the three Pharmacopœias ; and 4. With the long-established adoption in Pharmacy of a fluid-grain (minim) differing from the weight grain, but exactly corresponding with the new Pharmaceutic grain.

"All these discordances the Committee, after long and careful consideration, saw that they could easily remove, so far as practice was concerned, without injury, and with no more than a merely temporary inconvenience, by the slight and simple alteration which has been adopted. In particular, while they have established a slight difference between Pharmacy and other trades in the value of the grain, they have introduced for the first time a conformity in that of the ounce and pound. This must be admitted to be an important object, because the pound and ounce are much in use in the various trades which come in contact with that of Pharmacy; but, on the other hand, as the grain is very little used in the relations existing between Pharmacy and other trades, a slight alteration in its pharmaceutic value cannot occasion serious inconvenience.

"The Edinburgh Sub-Committee beg to repeat, in terms of the Report of the United Committee, which was adopted by the General Medical Council on the 21st of last May, that in the new Pharmacopœia care has been taken to alter the formulæ of the old Pharmacopœias, so that the doses of active substances shall not be altered, so far as the change in pharmaceutic weights is concerned. They are further satisfied, that any accidental error, during the period of passage from the old to the new grain, will not be of the slightest signification as to the action of even the most powerful remedies. And they have to add, that they have received the testimony of the ablest judges in the department of pharmacy, that the proposed system of Pharmaceutic weights and measures, including the change of value of the grain, will be found very soon to be a great benefit to the Pharmaceutic Chemist.

"With these advantages in prospect, the Edinburgh Sub-Committee are not deterred by the objection that science will be slighted by the proposed change. They are inclined to think that science has really little to boast of hitherto in the organisation of Imperial weights and measures of the United Kingdom, and very little to suffer through any partial deviation from them. At any rate they are unable to see how the change in value of the grain in the trade of Pharmacy disregards or injures science in any respect.

"In point of fact, the Pharmacopœia Committee did not adopt the system of weights and measures, which has since received also the sanction of the General Medical Council, without having seriously considered the propriety of throwing aside the Imperial system altogether, and introducing a really scientific one—a decimal system. Two courses were open to them:—either to follow some Continental countries, which have adopted the French metrical system, or to create one more consonant with British ideas, and practically more convenient, by arbitrarily erecting, as Dr. Paget has since proposed, a simple decimal system, founded on the Imperial grain as unit. But the Committee came to the conclusion, that either of these changes would be too wide a deviation from the general system of weights and measures of the country for the General Medical Council to be the first to introduce them ; 'and on the whole, that the Legislature, and not the Council, should take the lead in this matter.'—(*Pharmacopœia Report of the General Medical Council*, May 21, 1862.)

"The Edinburgh Sub-Committee will hail with pleasure the occasion when men of science will persuade trade, commerce, and Government

that a decimal system of weights and measures is the most truly scientific of all, as well as the most facile in practice. So far as Pharmacy and Medical practice are concerned, men of science will meet with no opposition to a really scientific system, such as that; and no new obstacle will be created by the system which has been adopted in the meantime for Pharmacy by the Pharmacopœia Committee and the General Medical Council, as the only eligible mode of reconciling real existing discrepancies, and getting rid of actual serious inconvenience.

"I am, your most obedient servant,
"R. CHRISTISON."

Resolution of the Dublin Pharmacopœia Sub-Committee:—"That this Sub-Committee fully agrees in opinion with the Edinburgh Sub-Committee that the Executive Committee of the General Medical Council has exceeded the powers entrusted to it by the General Medical Council, in passing the resolutions relative to the proposed change in the weights in the British Pharmacopœia, on July 11, 1862, and that this Committee fully adopts the letter of Dr. Christison to Dr. Garrod, of July 18, 1862, which has this day been laid before the Sub-Committee."

Resolution of the London Pharmacopœia Sub-Committee, August 14, 1862, on the Resolution of the Executive Committee in the General Medical Council, July 11, 1862:—"The London Branch Pharmacopœia Committee is of opinion, that as the manuscript of the British Pharmacopœia, with the proposed weights and measures, has already received the sanction of the General Medical Council, it is not at liberty to re-consider the question of the weights, for the purpose of making any fundamental alterations therein, unless empowered to do so by the General Council."

Read—The following Memorials on the subject of Weights and Measures:—

"119, George-street, Edinburgh, October 24, 1682.

"To Dr. Hawkins, Secretary to the
Medical Council, London.

"Sir,—I beg respectfully to hand you a copy of resolution, carried by a majority of eight to one, at a Meeting of the Council of the Pharmaceutical Society, held here on Wednesday, 22nd current, at which the above subject was fully discussed. I remain, your obedient Servant,
"JOHN MACKAY, Secretary."

"That, as the United Committees have already decided that the New Pharmacopœia be published, substituting the Avoirdupois weight as a standard, instead of the Troy, the Council much desire that this should be adhered to, and that, in the mean time, until a decimal system be decided upon for the country at large by Government, no change to the metrical form be made."

"Royal College of Physicians, Edinburgh, October 25, 1862.

"Sir,—At a meeting of the College held this day, the enclosed Resolutions, in reference to the proposed change in the system of Weights and Measures, were unanimously agreed to. I am instructed by the College to forward to you a copy of these Resolutions, in order that they may be laid before the approaching meeting of the Medical Council.

"I have the honour to be, Sir,
"Your most obedient Servant,
"D. R. HALDANE, Hon. Secretary.

"Dr. Hawkins, Registrar."

"Royal College of Physicians, Edinburgh, October 25, 1862.

"The Royal College of Physicians of Edinburgh having taken into consideration the proposed change in the system of Weights and Measures, resolves—

1. "That the existing system is so faulty and unsatisfactory that some change is required in it.
2. "That the change suggested in the Report of the Pharmacopœia Committee appears to the College to be an improvement.
3. "That the metrical decimal system having been recommended by a Committee of the House of Commons, it appears to the College that it would be well were the Medical Council at once to take the lead in inaugurating the decimal system, by introducing it into the New Pharmacopœia.
4. "That the representative of the College in the Medical Council be requested to support the foregoing resolutions in his place in the Medical Council."

"St. Owen-street, Hereford, October 21.

"Dear Sir,—The Resolution on the other side was passed at a large and important meeting of the Profession, held at our County Hospital a few days ago.

"Will you kindly submit it to the consideration of the Medical Council?
"Yours truly, J. GRIFFITH MORRIS, Secretary.

"Dr. Hawkins, Registrar."

"In the opinion of this Association, it is very undesirable to alter the present weights used in Medicine, unless for the purpose of introducing a decimal system."

Resolutions of the London Pharmacopœia Sub-Committee on the subject of Weights and Measures, October 25, 1862:—

1. "The London Sub-Committee is willing to relinquish the new (proposed) grain.
2. "The London Sub-Committee thinks it premature to adopt the metrical system of weights and measures, as it has not yet been sanctioned by the Legislature.
3. "As some decimal system will probably ere long be adopted by the Legislature, the London Sub-Committee does not think it advisable to introduce any new system of weights and measures at the present time.
4. "Considering that two of the three National Pharmacopœias employ the Apothecaries' (Troy) weight, the London Sub-Committee is of opinion that that system should be ordered to be used in the British Pharmacopœia.
5. "The alteration of the weights from the avoirdupois to the Apothecaries' weights will of necessity involve a very extensive revision of the manuscript of the British Pharmacopœia."

1. Moved by Mr. TEALE, seconded by Mr. SMYE—"That so much of the Report of the Pharmacopœia Committee, which was presented to the General Council on May 14, 1862, as relates to the system of weights and measures, be re-considered."—Agreed to.
2. Moved by Dr. SHARPEY, and seconded by Dr. STORRAR—"That the grain weight heretofore in use be adopted in the British Pharmacopœia."

Amendment moved by Dr. CHRISTISON, and seconded by Dr. ALEXANDER WOOD—"That the Council adopt the French decimal system of weights and measures as the basis for the standards of weights and measures of the British Pharmacopœia."—Amendment negatived.

The original motion was then put and carried.

The meeting having been adjourned, was resumed at 7 p.m.

3. Moved by Dr. STORRAR, and seconded by Dr. CORRIGAN—"That the weights used in the British Pharmacopœia be the Imperial or avoirdupois pound, ounce, and grain; and that the terms 'drachm' and 'scruple,' as designating specific weights, be discontinued."

Amendment moved by Dr. ACLAND, and seconded by Dr. STOKES—"That all weights below the avoirdupois pound, excepting grains, or multiples, or parts of grains, be omitted from the British Pharmacopœia, whereby the grain weights in use may be uniformly divided or multiplied, ducdecimally or decimally, and the inconvenient division of the avoirdupois ounce into 437·5 grains and its sub divisions will be avoided."—Negatived.

The original motion was then put and carried.

4. Moved by Dr. ANDREW WOOD, and seconded by Mr. SYME—"That it be referred to the Executive Committee, in conjunction with a Committee consisting of one member elected by each branch of the Pharmacopœia Committee, together with Dr. Garrod, the Secretary of the Pharmacopœia, to carry out forthwith the printing and publishing of the British Pharmacopœia."

Amendment moved by Mr. ARNOTT, and seconded by Dr. ALEXANDER WOOD—"That it be remitted to the Pharmacopœia Committee to proceed with the preparation of the Pharmacopœia, in conformity with the resolutions of the Council of this day's date, relative to Pharmaceutic weights. That the editing of the Pharmacopœia be committed to one Member elected by each Sub-Committee. That the publication and sale of the Pharmacopœia be transferred to the Executive Committee."—The amendment was carried.

5. Moved by Dr. CORRIGAN, and seconded by Sir CHARLES HASTINGS—"That the Executive Committee appointed on May 21, 1862, viz.: the President, Dr. Burrows, Mr. Arnott, Dr. Acland, and Dr. Sharpey, be, and are hereby appointed, with the powers delegated to them at the meeting of the General Council of said date, and the powers given to them by resolution of this day."—Agreed to.
6. Moved by Dr. STOKES, and seconded by Mr. TEALE—"That this Council desire to record their sense of the heavy loss sustained by science, by the Profession of Medicine, and by the nation, in the death of Sir Benjamin Collins Brodie, Bart., the first and chosen President of the General Council of Medical Education and Registration." The motion was carried unanimously, and ordered to be communicated to the family of Sir Benjamin Brodie.

MINUTES OF ADJOURNED MEETING, TUESDAY, OCTOBER 28, 1862

32, SOHO-SQUARE, LONDON, W.

Mr. GREEN, President, took the Chair at Ten o'clock, p.m.

Present—

Dr. Burrows.	Dr. Thomson.
Mr. Arnott.	Dr. A. Smith.
Mr. Cooper.	Mr. Hargrave.
Dr. Acland.	Dr. Apjohn.
Dr. Embleton.	Dr. Corrigan.
Dr. Storrar.	Dr. Sharpey.
Dr. Alexander Wood.	Mr. Teale.
Dr. Andrew Wood.	Dr. Christison.
Mr. Syme.	Dr. Stokes.

Dr. Francis Hawkins, Registrar.

The Minutes of the last meeting were read and confirmed.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

OCTOBER 20.

WHEN I last wrote I was able to speak of a condition of the health of this as well as other towns that was very gratifying. I have not, since that time, heard anything specially of the sanitary condition of most of the towns to which I then referred; but I regret to say that, so far as Liverpool is concerned, the public health has seriously retrograded. During the last three weeks the mortality has been above the average of the corresponding period of the last ten years, the increase being mainly due to the prevalence of zymotic diseases.

Dr. Duncan, in his report to the Health Committee last Thursday (October 16), stated that typhus and typhoid fever had never been so fatal during any corresponding period of the last fourteen years as during these last three weeks, and that, in addition to the deaths due to these diseases, 137 deaths had resulted from scarlet fever in the same time.

During the week ending October 15, 104 deaths were registered from zymotic diseases in general, and of these 45 were ascribed to scarlatina. Two deaths had cholera assigned as their cause. In one of these the disease was stated to have run its course in fifteen hours only.

In reference to the type of scarlet fever now existing, and the kind of treatment indicated, there was some discussion at the Medical Society on Thursday evening last. Mr. Bailey stated that he had had recently about forty cases under his care, and that the most marked feature in the cases occurring during this epidemic was the great prostration which occurred even at the outset of the disease, and which required, for its efficient treatment, the largest amount of stimulant which the patient could be induced to take. In cases which have survived this preliminary depression the throat

affection has been very severe. The discussion of the subject was not prosecuted to its close for want of time; but it will be, I believe, more fully entered into at the next meeting of the society.

With regard to the two cases of cholera, I think it is highly probable that they may have been cases of poisoning by some specially potent malaria, developed in sewers or drain pipes, in connection with which I may mention an example of the production of a choleraic condition, terminating in death, by fetid gas from a soil-pipe, which was communicated to me some time since by a friend, who attended the patient in whom it occurred, about three months since. A gentleman, aged a little over thirty, not very robust, but in average health, was endeavouring to ascertain the cause of some obstruction in a soil-pipe in his house, and unfortunately cut out a portion of the pipe. A stream of fetid gas found its way out immediately, and some of this must have been inhaled by the patient. He had dined some short time previously, and, instantly on breathing the vapour from the pipe, he vomited all that he had eaten. After the administration of stimulants he improved, and was, I believe, able to take some food: the vomiting, however, soon returned; the cramps and other phenomena of genuine Asiatic cholera came on, and, in spite of all that could be done for him, he died in about thirty hours from the time of his having inhaled the miasm from the pipe.

The present Session of the Medical School here was inaugurated by an address from Dr. Whittle, an abstract of which has already appeared in your columns. The entries to the School are exactly the same in number as at this time last year, so that here, at any rate, the new regulations as to Medical education do not seem likely to diminish the number of students.

The Session of the Medical Society commenced on October 2, with an introductory address by Mr. Fletcher, one of the retiring Vice Presidents. The address was mainly occupied with considerations in reference to some of the preventable causes of death among the populations of our great towns. Three facts were especially noticed:—1st. That the number of infant deaths is enormously in excess of that which, considering the probabilities of life in infants, we have any right to expect. 2nd. That, in spite of the great sanitary improvements which have been made, the death-rate from zymotic diseases is still high. 3rd. That excessive drinking proves fatal to a large number of persons year by year, and has, unquestionably, a large share in the production and aggravation of many diseases which are not directly assignable to it.

In reference to the first of these heads it seems that, in Liverpool, out of nearly 13,000 persons who died last year, more than half had only passed their second birthday, and more than a quarter had not lived a year; so that the 15,477 infants born during the same time were more than decimated twice over: a state of things which seems wholly unnatural, since we have no really scientific grounds for considering the life of a healthy infant who gets fair play to be held on any more uncertain tenure than that of an adult. Some of the causes of infant mortality, such as scrofula and constitutional syphilis, may be considered inevitable, so long as poverty and vice exist; but these causes account for less than 500 out of more than 6000 deaths; but the long list of causes which proved fatal to the remainder appear preventable, were it not for the ignorance of some parents, the unavoidable neglect of others, and the wilful neglect of others; while the present abominable wet-nurse system, under which the hire of the nurse is practically a bribe paid to her to sacrifice her own child, in order to save that of some one else, helps to swell the long catalogue of causes of baby-slaughter.

As to the remedies for these evils, it was suggested that, until our "home heathen" become christianized, there is not much chance of diminution in the number of deaths from wilful neglect and wilful murder; that the simple ignorance of parents is being dealt with to some extent by ladies' sanitary associations, by district nurses, and various agencies for house-to-house visitation among the poor; and, further, that much of the evil which results from the unavoidable absence from home of poor mothers who are obliged to go out to work, might be prevented by the establishment of public nurseries on the same plan pursued in Paris. As to the question of the prevention of zymotic diseases, it was suggested that, were the law to make the appointment of Officers of Health a national instead of a municipal matter, as at present, and to bring the whole kingdom under efficient sanitary inspection, a great step would be made towards the extinction of this class of disease; and that still further benefit would ensue were it possible to convince those who build the houses of the poor, that the moral and physical well or ill-being of the inhabitants is seriously influenced by the goodness or badness of their dwellings. In speaking of the third part, it was stated that, in Liverpool, 54 persons died from the immediate effects of excessive drinking in 1858, 67 in 1859, 43 in 1860, and 57 in 1861; while, in addition to these, it is certain that a large proportion of the deaths from accident, manslaughter, and suicide, resulted indirectly from the same cause; and that, besides these, a large number of deaths, the causes of which were assigned to diseases of the liver, kidneys, etc., were indirectly due to the abuse of alcoholic stimulants. In considering what preventive medicine can do to diminish the potency of this cause of disease and death, it was pointed out how important it is to ascertain in each case whether drinking habits originate from a natural appetite for stimulants, from an acquired habit, or from some taint of hereditary insanity developing itself as "dipsomania;" to decide when Medical treatment or legal restraint may become available, and how the individual is to be dealt with—whether medically, as a lunatic, or legally, as a criminal; that the practical difficulty of dealing with this class of patients results from "the paralysis of the will" under which they labour, and that we sorely need both reformatory institutions for drunkards, and some wise and distinct legislation in reference to their treatment; that a drunkard should be dealt with as sane or not sane,—if the former, he should be punished for his drunkenness, not simply for his disorder when he is drunk, but for making himself a public nuisance by reducing himself to a condition in which he may commit any crime recorded in the Newgate Calendar without knowing it. If, on the other hand, we consider him as not sane—as a dipsomaniac, why not treat him on the same principles as those on which we deal with other monomaniacs, and retain him in safe custody as long as may be necessary for his own safety, and for that of his neighbours?

I find that I have scarcely left myself space to say much of the proceedings of the second meeting of the Society. I must just mention, however, a specimen shown by Mr. Higginson, consisting of a portion of the spinal column of a man in whom dislocation backwards of the lumbar from the dorsal vertebræ had occurred. The dislocation was reduced by extension, and never returned. Paralysis of sensation and motion existed at first. Sensation returned, and a hyperæsthetic condition was developed. In spite of all efforts to prevent them, bed-sores formed, and the patient died twenty-eight days after the accident. Another specimen shown by Dr. Cameron was very remarkable, as showing the effect of chronic peritonitis, said to be occasioned by blows upon the abdomen. The disease had existed between four and five months. Friction sound had been distinctly audible over the abdomen during life, and, post mortem, the intestines were found coated with firmly-organised lymph, which had so contracted them that the whole tube from the pylorus to the anus did not measure much more than three feet.

GENERAL CORRESPONDENCE.

THE BRAIN OF MAN AND APES.

LETTER FROM PROFESSOR OWEN, F.R.S.

[To the Editor of the Medical Times and Gazette.]

SIR,—Whether the posterior production of the lateral ventricle in Quadrumana should be called by the same name as the more developed and differently configurated part in Bimana, or whether, with Tiedemann, such extension in the apes should be called "scrobiculus parvus loco cornu posterioris," was the question I had to consider in defining the cerebral characters of the Mammalia in my paper on their classification, submitted to the Linnean Society in 1857. Similarly, whether the innermost digit of the hind-foot in Quadrumana should be called "great toe," or "hallux," like the more developed and differently directed inner toe in man; or, whether it should be called "pollex posticus, loco hallucis,"—a "hind thumb" in place of the "great toe,"—was the question to be considered in reference to the terms required for briefly defining the limb-characters of the ordinal groups of the higher Mammalia. In regard to the cerebral

characters (a), the published additions to the descriptions and figures of the structures of the quadrumanous brains given in the classical "Icones Cerebri Simiaram" of Tiedemann, from Burmeister's *Tarsius* (Taf. vi. fig. 15), up to Vrolik's Chimpanzee (Plaat 2, fig. 4), were carefully compared with the continuation of the lateral ventricle, curving backwards, outwards, and inwards, and its accompanying eminence, in the human brain; and I came to the conclusion, that Tiedemann was correct in limiting to those structures in man the peculiar terms which had been applied to them by the older anthropotomists. The structures in the Quadrumana to which those terms have since been extended, are and were known to me, and as freely recognised as by any other comparative anatomist; but I preferred then, as now, the terms of Tiedemann in regard to them.

In affirming that the *hallux*, or great toe, is peculiar to the genus *Homo*, the zoologist is open to the same misrepresentation and flat contradiction as in the case of the *cornu posterius*. He may be represented as denying the existence of an inner or first digit in the foot of the ape. That digit may, then, be described and figured, as if it were a needful discovery; whereupon the following proposition might be fully demonstrated:—"That the great toe is neither peculiar to, nor characteristic of, man, seeing that it exists in all the higher Quadrumana." I am, &c.

British Museum, October 28. Richard Owen, F.R.S.

ASTIGMATISM.

Letter from J. Zachariah Laurence.

[To the Editor of the Medical Times and Gazette.]

Sir,—It was reserved for your Journal (in 1860) to give to the Profession in this country the first systematic account of Professor Donders's admirable researches on the "Anomalies of Refraction of the Eye." I trust you will equally so permit it to be the first to, if never so briefly, direct attention to a second important series of researches, that have just emanated from the pen of the same able Professor—I mean on Astigmatism. This defect of vision, which was first described by Thomas Young in this country, in 1793, consists generally in an inequality of the degrees of curvature of the cornea in comparing two principal sections—meridians—of that structure. The greatest inequality is generally found to exist between the vertical and horizontal meridians. Thus, in the celebrated case of the present Astronomer Royal, such was this inequality, as to render the furthest point of distinct vision in the erect meridian 3½ inches, in the transverse one 6 inches; so that the degree of myopia in the former plane was nearly double of that in the latter. Now, what Professor Donders has shown is, that what has hitherto been considered an exceptional, is really a very common cause of defective vision (b).

My own personal experience does not yet justify me in more than briefly indicating the diagnosis and treatment of astigmatism.

1st. Let the patient regard a luminous point (such as the light of the sky shining through a minute aperture in a metallic plate inserted against one of the panes of a window) at a distance of four or five yards. On now passing successively a slightly convex, then a slightly concave glass before the patient's eye, the point of light will alternately appear extended linearly in two opposite directions: that given by the convex glass is the meridian of maximum refraction's-power of the eye; that by the concave glass the minimum refraction's-meridian. Should the patient be ametropic, we must, before performing the above experiments, correct his general refraction's defect by the necessary reducing-glass.

2nd. By now holding a slit (about ⅛th of an inch broad) in a metallic plate, or card, before the cornea, in either of the first-found meridians, vision will be materially improved. By then holding before the slit concave or convex glasses, myopia or hypermetropia may be found, singly or combined, in either of the meridians. By the conjoined correction, both of the astigmatism and of the ametropia (if present), the patient's optical defect will be corrected, as far as our present state of knowledge permits of.

3rd. This last indication is fulfilled by the aid of cylindrical lenses (c). These may be regarded, as their name implies, as glass cylinders divided parallely to their axes, either convex or concave ones. Such lenses have the property of only exercising any notable con- or di-verging influence on light incident in planes perpendicular to their axes: light incident in planes parallel to their axes undergoes no deviation of direction. Such lenses, therefore, afford the means of correcting an anomaly of refraction in one meridian of the globe, leaving the other meridian in its pristine condition, or susceptible of any necessary correction by a second cylindrical lens; the combination of the two lenses being, however, replaceable by a compound cylindrical lens, presenting the two necessary differences of curvature in the directions of the two meridians. An eye may, moreover, be found generally myopic, or hypermetropic, with superadded astigmatism in one or both of its meridians. Such a case requires the combination of an ordinary spherical with the cylindrical lens.

As the disease is entirely a novel one in the extended development Professor Donders has given to it, I have done no more now than simply directed attention to a subject which is, in all probability, of the highest importance and signification. Those who wish to pursue the matter further will do well to attentively study Professor Donders's original work, "Astigmatismus und Cylindrische Glæser, von F. C. Donders, Berlin, 1862." I am, &c.

October 24, 1862. J. Zachariah Laurence.

(a) *Journal of the Proceedings of the Linnean Society*, Vol. iii. No. 9, February and April, 1857.

(b) He has observed forty cases in eight months.

(c) These lenses may be had of Messrs. Paetz and Flohr, of Berlin.

OBITUARY.

SIR BENJAMIN COLLINS BRODIE, BART.

The life of a man, such as Sir Benjamin Brodie, presents two aspects—a Professional and a personal one. It may be examined in the grand total of its results, or we may endeavour to trace and understand the processes by which those results were accomplished, the circumstances which favoured their accomplishment, and the obstacles which were encountered and overcome in their attainment. The results of Sir Benjamin Brodie's life comprehend Professional success, such as is the reward of but one or two in a generation: a standing in science second only to such men as Sir Humphrey Davy, the Hunters, or the Monros; and a public position based on Professional and scientific successes which at once was pre-eminent and undisputed. Now, when the earth is closing over the remains of one so great, so good, so honoured, we propose to allot some space to a review of the career of Brodie from each point of view; to give a short *resumè* of the results of scientific labour embodied in his works; to record something of his Professional triumphs and intellectual achievements; and, afterwards, to trace the course which led to such a goal—the personal history of the man who was *facile princeps* in the Profession of Medicine in Great Britain.

The writings of Sir Benjamin Brodie naturally fall under three divisions, referable to three periods of his life. The first was, when a young Hospital Surgeon and teacher of Anatomy, he employed his leisure in scientific experiment and observation; the second, when, in the full tide of practice, he restricted authorship to the subjects which formed the daily business of his life,—the Surgical diseases of the human body; the third when, in the evening of his days, and, gradually relinquishing the toils of practice, he gave to the world the results of his mature reflection on some of those great problems which are bound up in the complex nature of man.

The first appearance of Brodie as a scientific writer was in the year 1809. On February 16th of that year, a paper from his pen was communicated to the Royal Society by Sir Everard Home. It was an account of the dissection of a fœtus, which had attained its full size without a heart, and in which the only communication between the arterial and venous systems was by means of the systemic capillaries, and in the placenta. At this time he was an Assistant-Surgeon at St. George's Hospital, and a lecturer on Anatomy at the Windmill-street School. In the following year he became a Fellow of the Royal Society, and, soon after, he contributed to the *Philosophical Transactions* a series of papers, which at once gave the writer a European reputation as a Physiologist, and which, although some of the deductions from the experiments detailed were in after life modified or renounced, still remains one of the most important contributions to biological science by any British Physiologist of the first half of the nineteenth century. The

first of these was the Croonian Lecture, delivered on December 20, 1810, for which, in the following year, the author, then twenty-eight years of age, received the highest reward the Royal Society can bestow—the Copley medal. The original purpose of the experiments detailed in the Croonian Lecture was, to ascertain how far the action of the heart would continue after the removal of the influence of the brain, by the division of the spinal cord high up in the neck. Cruikshank and Bichat had previously concluded that the brain is not directly necessary to the action of the heart, and that, when the functions of the brain are destroyed, the circulation ceases only in consequence of the suspension of respiration; but their deductions wanted carefully-observed experiment to give them an irrefragable basis. The reception of what is now a canon in physiology we owe to Brodie. By dividing the spinal marrow between the occiput and atlas, and by keeping up artificial respiration, he proved that the influence of the brain is not directly necessary to the action of the heart, and that, when the brain is injured or removed by decapitation, the action of the heart ceases, only because respiration is under its influence, and if, under these circumstances, respiration be artificially produced, the circulation will still continue. But his experiments did not stop here. It occurred to him to ascertain whether the processes of secretion, and the production of animal heat, were maintained at the natural standard. His conclusions at that time were, that "when the influence of the brain is removed, the secretion of urine is suspended, and no heat is generated; notwithstanding that the function of respiration, and the circulation of the blood, continue to be performed, and the usual changes in the appearance of the blood are produced in the lungs." Also, that "when the air respired is colder than the natural temperature of the animal, the immediate effect of respiration may be, not to generate, but even to diminish animal heat." A second series of experiments on the influence of the brain on the generation of animal heat, was undertaken, and the results embodied in a paper read before the Royal Society, on June 18, 1862. In these, means were taken to measure the quantity of carbonic acid generated by the animals on which artificial respiration was practised. In the chemical part of the experiments, Mr. Brodie had the assistance of Professor Brande. The functions of the brain were suspended by inoculation with the woorara poison, or with the essential oil of almonds; in this way the extent of the circulation was not lessened, and hæmorrhage was avoided. The general result arrived at was, that the quantity of carbonic acid given off by the poisoned animal was fully equal to that given off by an uninjured animal during the same space of time (half-an-hour), although the temperature of the former fell from 6° to 7°, whilst that of the latter remained unchanged. Another result of the experiments detailed in the two memoirs was, that animals in which circulation was maintained by artificial respiration after removal or destruction of the functions of the brain, cooled more rapidly than those in which the circulation had entirely ceased. At first sight, these experiments seem to prove that the production of carbonic acid has nothing really to do with the generation of heat, and to point to the brain as the source of calorification. But, with the caution which characterised him throughout life, the author declined committing himself to such an inference. He writes: "The facts now, as well as those formerly adduced, go far towards proving, that the temperature of warm-blooded animals is considerably under the influence of the nervous system; but what is the nature of the connection between them?—whether is the brain directly or indirectly necessary to the production of heat? These are questions to which no answers can be given, except such as are purely hypothetical. At present we must be content with the knowledge of the insulated fact; future observations may, perhaps, enable us to refer to some more general principle. We have evidence, that when the brain ceases to exercise its functions, although those of the heart and lungs continue to be performed, the animal loses the power of generating heat. It would, however, be absurd to argue from this fact, that the chemical changes of the blood in the lungs are in no way necessary to the production of heat, since we know of no instance in which it continues to take place after respiration has ceased."

In estimating the value of these researches, we must remember the state of opinion at the time they were conducted. The "combustive" theory, which had been clearly advanced by the English Physiologist, Mayow, had been placed upon a firm chemical foundation by Black and Lavoisier; but their doctrine was, that the combustion takes place in the lungs, a position disproved by the fact, that the temperature of those organs is no higher than that of the rest of the body. This difficulty, however, was got over by the hypothesis of Crawford, who supposed that the arterial blood had a greater capacity for caloric than the venous,—that the heat produced in the lungs was rendered "latent" in the arterialised blood, and became "sensible" in the change which it undergoes in the systemic capillaries. The doctrine held was, although erroneous, as ultra-chemical as that maintained by any Physiologist of the school of Liebig; and the memoirs of Brodie, although erring in their deductions on the other side, brought to light a series of facts which required explanation by the advocates of the purely chemical view. Thirty years later, when the labours of Liebig and other Chemists and Physiologists had given consistency and definiteness to the received chemical theory of calorification by the oxidation of carbon and hydrogen in the systemic capillaries, and by other oxidising processes, such as the production of sulphuric and phosphoric acids from the sulphur and phosphorus of the protein-compounds of the food, Sir Benjamin Brodie republished his papers, and appended notes, in which he sums up the results of his mature reflection and inquiry. He compares his experiments with those of Legallois, and explains the reasons of the apparent discrepancies between them. He retracts the conclusion, "that where the influence of the brain is withdrawn, no heat whatever is generated," on the ground, that it is difficult to estimate the precise quantity of air which enters the lungs when they are artificially inflated, and that experiment had shown, that in an animal deprived of brain, when artificial respiration was slowly performed, cooling took place more slowly than in a dead animal; but he insists on the fact, that there is a very close relation between the calorific function, and the integrity of the functions of the nervous system. This position he fortifies by observing, that the various animals of the class Mammalia have nearly the same temperature, whilst there is a great difference in the quantity of the oxygen they consume in respiration; that rabbits, merely confined in a restrained position on the back, gradually become of a lower temperature, and that the cooling process may be carried so far as even to occasion the death of the animal, a circumstance which he explains by supposing that the loss of heat is the consequence of the state of alarm in which the animal is placed; that the temperature of animals breathing pure oxygen, falls considerably below the natural standard; and, lastly, that, certain lesions of the nervous system cause a diminution of the local temperature, whilst others produce the very opposite effect. He advances no dogmatic theories, but he suggests that, supposing the views of Professor Grove as to the correlation of physical and vital forces to be correct, "may it not be that the union of carbon with oxygen gas, which, under ordinary circumstances, is immediately followed by the evolution of heat, is, in the living body, productive of a different result (such as the maintenance of the nervous power, or the irritability of the muscles), and that it may thus be only indirectly concerned in the calorific functions?"—whilst, on the other hand, considering the many points of strong resemblance between nerve, force, and electricity, "there seems to be no reason, *à priori*, why the resemblance should not extend still further, nor why the evolution of heat should not be one of the results of the nervous power, as it is of electricity." Whilst the advance of science has shown various sources of fallacy in Sir Benjamin Brodie's experiments on animal heat—a principal one of which is, that the amount of carbonic acid exhaled in any given time by no means necessarily represents the amount of chemical change taking place in the system during the same period—we must yet accord to his investigations no slight utility. At the time of their publication they were eminently useful as tending to repress a spirit of too hasty generalisation amongst the cultivators of an infant science; and now, if they do not present, they at least suggest, to the mind facts, of which pure chemistry hitherto has offered no explanation.

Brodie's researches on the action of poisons on the animal body were read before the Royal Society on February 21, 1811, and on June 18, 1812. The whole question of the action of poisons on the system at large, and on remote organs, was at that time involved in the greatest obscurity. The doctrine, that the effect produced by poisonous agents is, in by far the

greater number of instances, due to their reception into the current of the circulation, received valuable support from his experiments, especially those which proved the local action of arsenic on the stomach when introduced into the circulation through some remote part of the body. He asserted that arsenic, tartar emetic, and muriate of baryta, do not produce their deleterious effects until they have passed into the circulation. With regard, however, to certain vegetable poisons, when applied internally, he came to the conclusion, that they exercise their influence through the medium of the nerves, independently of being absorbed:—"When, however, woorara is applied to a wound, it produces its effects on the brain, by entering the circulation through the divided blood-vessels; and, from analogy, it appears probable that other poisons, when applied to wounds, operate in a similar manner." When, in 1851, he republished these with his other physiological essays, he was evidently inclined to admit the mode of conveetion by the blood in the case of many of the vegetable poisons, which he formerly believed produced their effects through the medium of the nerves; still, he adds, "Facts may be adduced which render it doubtful whether the whole of the phenomena admit of this explanation, at the same time that the analogy of what happens under other circumstances justifies us in regarding the agency of the nerves, in transmitting the influence of certain poisons to the vital organs, as no improbable hypothesis."

On February 10, 1814, he again appeared before the Royal Society, reading a paper on the influence of the eighth pair of nerves on the secretions of the stomach. In this he detailed an experiment, made by dividing the par vagum in the neck, and introducing arsenic into the system through a wound of the thigh. He found that, in an animal so treated, no discharge of fluid took place, either from the stomach or intestines; and that the same result took place, although inflammation was produced, when an animal, in which the par vagum was divided, was made to swallow arsenic. He thence concluded that the secretions of the stomach and intestines are directly under the control of these nerves.

This was the last of the physiological papers which appeared in the *Philosophical Transactions*. Some years later, in the year 1822, he contributed to the *Quarterly Journal of Science* some observations on the effects produced by ligaturing the ductus choledochus. But his abandonment of physiological research was forced on him by the imperative calls of practice. In the advertisement which introduces the republication of his scientific papers, he writes:—"Having been long engaged in the duties of an arduous Profession, I have not had it in my power to continue the pursuit of those physiological inquiries to which I was able to devote a considerable portion of my time during the early part of my Professional life." In allusion to the labours of others, he adds: "Whatever loss this may have occasioned to myself, it has caused no loss to the public." Few who have perused the series of papers we have referred to will share in such a conclusion. The consideration, however, that the same acuteness, the same caution, the same perseverance, were henceforth to be directed to the actual cure of disease, and to be employed in chronicling the vast experience accumulated in the Hospital and consulting-room, must diminish the regret with which we watch him disappearing from the field of physiological research.

Of the Surgical writings of Sir Benjamin Brodie, the first, and in some respects the most important, is the well-known "Pathological and Surgical Observations on the Diseases of the Joints." The foundation of this treatise is to be found in three papers read before the Medico-Chirurgical Society, and published in the fourth, fifth, and sixth volumes of their *Transactions*. The first, therefore, dates so far back as the year 1813. Five years later, the first edition of the "Observations" appeared. Other editions, with various additions and alterations, were published in 1829, 1834, and 1841, and the fifth and last in 1851. Little attention had been paid to diseases of the joints by Pathologists who preceded Brodie. Affections of different structures in different stages had all been classed together under the name of "white swellings, scrofulous joints," etc., and their treatment was as little understood as their pathology. By his division of articular diseases into affections of the synovial membranes, scrofulous disease arising in the cancellous structure of the bones, ulceration of the cartilages, etc., he introduced light and order, where all had been darkness and confusion. Some common diseases of joints, for instance, gonorrhœal rheumatism, he was the first accurately to describe. Throughout the book, carefully recorded cases, principally taken in the wards of St. George's Hospital, whilst they enliven interest, bear testimony to the unerring diagnosis and consummate skill of the author. But need we say a word in commendation of a work which is at once a classic ornament and a valued friend in the library of every Surgeon?

His next great contribution to Surgical literature was a volume of lectures on Diseases of the Urinary Organs, which appeared in 1832, and ran through four editions, the last of which appeared in 1849. It would be impossible here to attempt an analysis of such a work. We can only point to it as a model of lucid, clear, practical teaching. It is characterised by short, pithy, unadorned sentences, which sink into the memory like anchors into a sand-bank. Take, as an example, the apothegm, "The temper of the urethra varies as much as the temper of the mind." The chapters on the mode of performing the operation of lithotomy, on stricture of the male urethra, on diseases of the prostate, are not to be surpassed as models of clinical teaching. In the first edition he thus refers to the then new operation of lithotrity: "I ought not to pass over in silence the new lithontriptie method of operating; but I have little knowledge on the subject, except what I have obtained from books, and from seeing it performed by Baron Heurteloup. Indeed, with my various other engagements, I do not expect to be able to acquire the tact necessary for the proper performance of it. I cannot doubt, however, that in the hands of so skilful and ingenious an operator as Baron Heurteloup, it is likely to prove useful on a number of occasions." He then goes on to enumerate the manifest advantages of lithotrity over lithotomy. A paper read on April 10, 1855, before the Medico-Chirurgical Society, and the last edition of his work on Diseases of the Urinary Organs, are evidence that he not only found time to acquire the tact necessary to the proper management of the operation, but that he had obtained no ordinary facility in its performance. We believe that the last sentences on practical Surgery which appeared from his pen contained an expression of his conviction that lithotrity, if prudently and carefully performed, with a due attention to minute circumstances, is liable to a smaller objection than almost any of the other capital operations of Surgery, and that the cases to which it is not applicable are very few indeed.

The volume of Lectures on various subjects in Pathology and Surgery, which appeared in 1846, comprises subjects, which, as he remarks in the prefaee, are not very distinctly treated of in Surgical books. Throughout Sir Benjamin's practical writings the influence of his physiological training shows itself, and never more conspicuously than in the Lectures on the Effects of Strangulation, on Death from Drowning, and on the Mode by which Death is Produced by Lightning. These Lectures were delivered in the Theatre of the College of Surgeons in 1821, when Professor of Anatomy and Surgery. They form part of this volume. Its opening Lecture was one delivered to the students of the Medical School of St. George's, on October 1, 1838. From it we extract one passage, which, we believe, contains the main secret of Brodie's success:—

"There is nothing in which the difference between man and man is more conspicuous than it is in this—that one is content to labour for the sake of what he may obtain at a more advanced period of his life, while another thinks that this is too long to wait, and looks only to the immediate result. At first, the former may seem not only to make no greater progress than the latter, but even to be the more stationary of the two. But wait, and you will find a mighty difference at last. You cannot judge from the first success of a Professional person what his ultimate success will be; and this observation applies especially to those who contend for the greater prizes, not only in our Profession, but in the majority of human pursuits."

The last we have to mention of the more important of Brodie's Surgical writings were his lectures illustrative of certain local nervous affections, which first appeared in 1837. He was the first who threw any light on those hysteric and neuralgic affections of joints, for which, in times past, limbs have been amputated. Such affections are now universally recognised; but, for its first description, Surgical Science is indebted to Sir Benjamin Brodie.

The other Surgical writings of Brodie consist of several papers in the Medico-Chirurgical *Transactions*. Amongst these are—A case of ununited fracture of the femur successfully

treated by the introduction of a seton, vol. 5; observations on the treatment of varicose veins of the leg, vol. 7; Pathological and Surgical observations relating to injuries of the brain, vol. 14; a case of aneurism by anastomosis of the forehead, treated by the application of ligatures, vol. 15; cases of chronic abscess of the tibia, vol. 17; Pathological and Surgical observations relating to injuries of the spinal cord, vol. 20; and an account of a case in which a foreign body was lodged in the right bronchus, vol. 26. This last was the celebrated case of Mr. Brunel, the engineer. The means taken by Sir Benjamin to dislodge the foreign body—half a sovereign—will be remembered by all. The patient's head was gradually lowered, and the back sharply struck. The experiment was at length successful, but not until after tracheotomy, and the introduction of a forceps to seize the foreign body, had failed. The only other strictly Professional work of Sir Benjamin's, of which we are aware, is a Hunterian oration delivered on the 14th of February, 1837. In our next number, we propose to notice the literary labours of his declining years; and afterwards, to subjoin such biographical particulars as are in our possession.

(To be continued.)

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—LICENTIATES IN MIDWIFERY.—The following Members of the London College of Surgeons, having undergone the necessary examinations, were admitted Licentiates in Midwifery, at a meeting of the Board, on the 29th ult.:—

Alfred Hunt, Bridge road, Hammersmith, diploma of membership dated May 1, 1857; Brinsley Marcius Walton, Hurstpierpoint, April 20, 1860; Charles Samuel Matthews, Portugal-street, Lincoln's-inn-fields, May 8, 1860; William Gayton, Brick-lane, Spitalfields, November 14, 1860; Frank Copland, Brenchley, June 4, 1861; James Yates, Oldham, Lancashire, August 1, 1861: Henry Ellery Trewhella, M.D. St. Andrews, Guy's Hospital, April 22, 1862; Edward Hibberd, Tunbridge Wells, May 8, 1862; Henry Waghson, Soho-square, May 9, 1862; Lewis James May, West Putford, Devon, July 31, 1862; the Rev. James Hudson Taylor, Barnsley, July 27, 1862; Thomas Martyn Cann, Virginstowe, Devon, June 12, 1862; Howell Charles Phillips, Trinity-square, July 31, 1862; and William Kitto Giddings, Leeds, April 23, 1862.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 23, 1862:—

John Palmer Way, Portsmouth, Hants; Joseph Shillito, Newcastle-on-Tyne; Alexander Carson Clarke, Coleraine, Ireland; Thomas William Wasdale Watson, Nottingham-place, Regent's-park; Edwin Samuel Ayre, Penistone, Yorkshire; Edwin Hodgson Roe, Eccles, near Manchester; William Henry Hobson, Charing-cross Hospital; John Forrest, Blackburn, Lancashire.

The following gentleman also on the same day passed his First Examination:—

William Arthur Bracey, Guy's Hospital.

APPOINTMENTS.

ALLAN.—James A. Allan, Assistant-Surgeon R.N., has been confirmed in the *Emerald*.

ASHFORD.—John Wilson Ashford, M.R.C.S. Eng., Acting Assistant-Surgeon R.N. (additional), has been appointed to the *Rattlesnake*.

BENNETT.—William Robert Bennett, M.D. Univ. St. And., L.R.C.S. Irel., Assistant-Surgeon R.N., June 25, 1856, has been appointed to Greenwich Hospital.

BIGGS.—Dr. I. Strange Biggs has been appointed Resident-Physician and Medical Superintendent of the Surrey County Lunatic Asylum.

CLAPP.—William Prideaux Clapp, M.R.C.S. Eng., Acting Assistant-Surgeon R.N., October 8, 1861, has been confirmed as Assistant-Surgeon to the *Tribune*.

COCKER.—John Cocker, M.D. Erlangen, F.R.C.P. Edin. (exam.), M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Blackpool District of the Fylde Union, Lancashire, *vice* William Moore, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., deceased.

COOMBS.—William Godwin Coombs, M.D. Univ. St. And., M.R.C.S. Eng. and L.M., L.S.A. Lond., has been appointed Assistant Medical officer to the Devon County Lunatic Asylum at Exminster, *vice* George James Symes Saunders, M.B. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond, appointed Medical Superintendent.

CUMMING.—Arthur James Cumming, M.R.C.S. Eng., has been appointed Consulting-Surgeon to the St. Thomas's Hospital for Lunatics, near Exeter, *vice* Charles Knighton Webb, M.R.C.S. Eng., L.S.A. Lond., deceased.

EAGLES.—Gabriel M. Eagles, Assistant-Surgeon R.N., has been appointed to the *Impregnable*.

GUY.—William Guy, M.D. Univ. Edin., M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Thorpe District of the Blofield Union, Norfolk, *vice* Edward Crickmay, M.R.C.S. Eng, L.S.A. Lond., appointed to the Dilwyn District of the Weobley Union, Herefordshire.

HARRIES.—John Davies Harries, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Salop County Gaol, Shrewsbury, *vice* Henry Fenton, M.R.C.S. Eng., L.S.A. Lond., resigned.

HEALY.—Charles John Healy, L.R.C.S. Irel. and L.M., has been appointed Medical Officer and Public Vaccinator for the Quin Dispensary District of the Tulla Union, County Clare, *vice* Thomas Bunton, L.R.C.S. Irel., L.M. Dublin Lying-in Hospital, deceased.

HELPS.—William Helps, M.D. Univ. St. And., F.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., has been appointed Resident Physician and Medical Superintendent to the Royal Bethlehem Hospital for Lunatics, *vice* William Charles Hood, M.D. Univ. St. And., F.R.C.P. Edin., M.R.C.P. Lond., appointed Visiting Physician in Lunacy to the Court of Chancery.

HILL.—Alfred Hill, M.D. Univ. King's Coll. Aberd., F.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Birmingham Borough Gaol, *vice* James Vose Solomon, F.R.C.S. Eng., L.S.A. Lond., resigned.

KING.—James George King, M.R.C.S. Eng., L.S.A. Lond., has been appointed Assistant House-Surgeon and Dispenser to the Royal Portsmouth, Portsea, and Gosport Hospital, *vice* John Lambert, L.F.P.S. Glasg., resigned.

LOGAN.—David Duncan Logan, M.D. McGill Coll., Montreal, M.R.C.P. Lond., has been elected third Physician to the West London Hospital and Dispensary, Broadway, Hammersmith.

MACGILLIVRAY.—Paul Howard MacGillivray, A.M., M.R.C.S. Eng., has been appointed Resident Surgeon to the Bendigo Hospital, Sandhurst, Victoria.

MIALL.—Philip Edward Miall, M.R.C.S. Eng., L.S.A. Lond., has been elected Surgeon to the Infirmary and Dispensary, Bradford, Yorkshire, *vice* J. Poppleton, M.R.C.S. Eng., L.S.A. Lond., whose term of office (ten years) has expired.

NEWCOMBE.—Frederick William Newcombe has been declared the successful Competitor for the Medical Scholarship of the University of Durham.

O'FLAHERTY.—Thomas A. O'Flaherty, M.D., Assistant-Surgeon R.N., January 19, 1860, has been appointed to the *Britannia*.

O'SULLIVAN.—Thomas George O'Sullivan, L.R.C.S. Irel., L.A.H. Dub., L.M. Rotunda Hospital, Dublin, has succeeded Patrick Henry Keon, L.R.C.S. Edin., as Resident Medical Officer to the Limerick Workhouse.

RIORDAN.—Denis Augustine Riordan, M.D., M.R.C.S. Eng., Acting Assistant-Surgeon R.N., has been appointed to the *Rattlesnake* (additional).

ROCHE.—William Roche, Assistant-Surgeon R.N., May 17, 1859, has been appointed to Plymouth Hospital.

WRIGHT.—Dr. George E. Wright has been appointed House-Surgeon, Clerk, and Apothecary to the Dumfries and Galloway Royal Infirmary, *vice* Thomas Brisbane, M.D. Univ. Edin., M.R.C.S. Eng., resigned upon being appointed Assistant-Surgeon R.N.

DEATHS.

ASPRAY.—October 6, Thomas Aspray, of Wilmington-square, Clerkenwell, formerly of Olney, Bucks, and afterwards of Westbourne-grove, Bayswater, L.S.A. Lond.

BRIEN.—Recently, at Barbadoes, Edward Arthur Brien, L.R.C.S. Irel., A.B. Trin. Coll. Dub., Surgeon 1st West India Regiment.

BRYCE.—October 23, of congestion of the brain, at No. 63, Donegal-street, Belfast, Robert Bryce, M.D., aged 59.

BURTON.—August 20, at Shanghai, Dr. Frank W. Burton, aged 40.

DANIEL.—September 11, at Gorruchpore, Bengal, from exhaustion after fever, Hickmon R. Daniel, Surgeon 13th Native Infantry, only son of the late Michael Daniel, of Stephen's-green, Dublin, M.D.

HYDE.—October 22, at Southport, Lancashire, Robert Hyde, late of Ashton-under-Lyne, L.R.C.S. Edin., aged 56.

LEWIS.—David Thacker Lewis, M.D., M.R.C.S., L.S.A., aged 43, of yellow fever, while in charge of the U.S. Hospital at Key West. Dr. Lewis practised some years in Spitalfields, and subsequently in Philadelphia. To high classical attainments, he united an extensive acquaintance with natural science, and a most exalted probity in his personal and Professional character.

LONDON GAZETTE.

October 4.

5TH BATTALION KENT RIFLE VOLUNTEERS.—Thomas Ayerst, M.D., to be Assistant-Surgeon; dated October 17, 1862.

1ST LONDON ENGINEER VOLUNTEER CORPS.—Richard Buswell, to be Assistant Surgeon; dated October 15, 1862.

1ST BRECKNOCKSHIRE RIFLE VOLUNTEER CORPS.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Assistant-Surgeon John James Williams, in the above Corps.

1ST LANARKSHIRE ARTILLERY VOLUNTEER CORPS.—Bruce Barclay, M.D., to be Assistant Surgeon; dated October 15, 1862.

James Cowan Woodburn, M.D., to be Assistant-Surgeon; dated October 15, 1862.

Henry Richard Adam Gladman to be Assistant-Surgeon; dated October 15, 1862.

PRINCE ALBERT'S OWN LEICESTERSHIRE REGIMENT OF VOLUNTEER CAVALRY.—The Queen has been pleased to accept of the resignation of the commission held by Veterinary-Surgeon William Barley, in the above Regiment.

October 28.

PRINCE ALBERT'S OWN LEICESTERSHIRE REGIMENT OF VOLUNTEER CAVALRY.—Frederick Bailey, gent., to be Veterinary-Surgeon, *vice* Barley, resigned; dated October 21, 1862.

Mr. Thomas Callaway, F.R.C.S. Eng., formerly of Guy's Hospital, now residing in Algiers, has just been received (by examination) as "Officier de Santé" of the highest grade, by the Faculty of Medicine of Algeria.

The Metropolitan Schools.—From inquiries made we have ascertained that 1045 students are now engaged prosecuting their studies at the London Hospitals and Schools: in 1861, the numbers registered amounted to 1124; and in the preceding year, 1860, there were 1228.

Royal College of Surgeons of England.—The following is the subject for the Collegial-triennial prize of fifty guineas:—the Structural Anatomy and Physiology of the Lymphatic Vessels and Glands (the anatomical distribution not being required); the communications (if any) between the lymphatics and the blood-vessels to be demonstrated; and the influence (if any) which the lymphatic vessels or glands exercise on the fluid they transmit, to be elucidated. There are two Jacksonian prizes for the present year, viz.:—The Relative Value of the Treatment of Popliteal Aneurism by Ligature and by Compression, and on the Healthy and Morbid Anatomy of the Tonsils, and the Appropriate Treatment of their Diseases. There are also two subjects for prizes for the ensuing year 1863, viz.:—the Pathology and Treatment of Diseases of the Larynx; the diagnostic indications to include the appearances, as seen in the living person. And the Normal and Pathological Anatomy of the Various Synovial Bursæ connected with the Muscles and Tendons of the Upper Extremity, and the Treatment of their Diseases. The new list of members, etc., having just been published, we are enabled to give the following analysis of it:—There are now 1198 Fellows of the College, of which number 260 have undergone the examinations for the honour, the remaining 938 being honorary and elective Fellows. There appears to be about 13,890 members of the College; 840 Licentiates in Midwifery; and 134 persons have undergone the examinations for the certificate of Dental Surgery, being only 34 over the number we published last year. We find, that of the present Council the following gentlemen have twice filled the President's chair:—Messrs. William Lawrence in 1846 and 1855; Joseph Henry Green in 1849 and 1858; James Moncrieff Arnott in 1850 and 1859; John Flint South in 1851 and 1860; Cæsar Henry Hawkins in 1852 and 1861; and James Luke in 1853, and again filling that high office in the present year. Mr. Lawrence, Serjeant-Surgeon to Her Majesty, is the senior member of the Council.

Vienna.—Death of the Doctor of the "Novara."—The death of Dr. Edward Schwarz, a Hungarian by birth, which took place at Vienna on September 22, in the 31st year of his life, deserves some notice, from his connexion with the well-known expedition of the Austrian frigate *Novara*, commissioned to circumnavigate the globe for scientific purposes. Although very young, and, moreover, a Jew, yet so conspicuous was his talent, that he received from the Emperor himself the appointment as Physician to the expedition. On the return of the frigate, he published the much-esteemed work, "Medical Account of the Voyage of his Majesty's Frigate *Novara* round the Globe." He further invented an "Anthropometer," illustrating this instrument by a publication, and what is remarkable, not in the German, but in the English language, entitled, "A System of Anthropometrical Investigations, as a Means for the Differential Diagnosis of Human Races," invented and established by E. Schwarz. This instrument serves for the measurement of the varieties in the construction of the human body.—*Jewish Chronicle.*

The Federal Government of the northern part of the late United States is about to send a detachment of corncutters, or *pedicures*, to the grand army of the Potomac.

A servant girl was committed at Grantham on a charge of robbing her master. Shortly afterwards she ate some pork-pie which her father had given her, and died in convulsions very quickly. Her death is ascribed to strychnia.

A Painful Case.—Shields, *Saturday Night.*—Mr. Reed, the coroner for South Northumberland, opened an inquest, in the Town Hall of North Shields, this evening, into the circumstances of the death of Mrs. Jane Gilhespie, wife of a seaman, who died very suddenly on this day fortnight, having been little more than an hour ill. This afternoon her body had been exhumed at the cemetery, and this evening Mr. Newton, Surgeon, Dr. M'Nay, and Dr. May, of Newcastle, on behalf of the authorities, and Mr. Murray, of the College of Medicine of the same town, and Mr. Fawcett, on behalf of the husband of the deceased, made a *post mortem* examination of it, and the viscera has been sealed up to be analysed. The coroner adjourned his inquest until Thursday, when the analysis, it is expected, will be ready. The facts of this unfortunate case appear to be as follow:—Mrs. Gilhespie, who had been poorly some time, having been attacked by a severe cold, had procured a bottle of medicine from her Medical attendant, whose name was not mentioned at the coroner's court this evening, but will come out at the adjourned inquiry. On Saturday fortnight she had gone out in the forenoon, and had made her marketing, and upon returning home she took the first dose, two tablespoonfuls, of the medicine which had been sent to her. After she swallowed it she said to her sister she had never tasted such stuff in her life before, and that it was very nasty. She was immediately attacked with dangerous symptoms like tetanus, and she was dead in little more than an hour. The Medical gentleman gave a certificate that she had died of a bronchial affection; but the husband of the deceased, from the extraordinary symptoms exhibited by the poor woman in her death agonies, imagined that there was something wrong with the medicine, and gave a few drops of it to a cat, which died in a few minutes. After the interment of his wife, Gilhespie took the remaining portion of the medicine to Mr. J. Pattison, analytical chemist, Newcastle, who, after analysing it, gave a written certificate to the effect that it contained strychnine in the proportion of 1¼ grains to each fluid ounce of the mixture. Mr. Gilhespie having made the case known to the authorities, Mr. Reed gave an order for the disinterment of the body. The Town-hall was crowded with respectable inhabitants during the short time that the court sat.

The Coroner for Middlesex.—It will be seen, from the following report, that the learned coroner for Middlesex claims the introduction of galvanism as a remedy for poisoning by opium. It will also be seen, from his pertinent question about the heart, that incomplete *post-mortem* examinations in public medico-legal enquiries will receive salutary notice. Mr. M. had been in a delicate state of health for a considerable time, and since the death of his wife, a year ago, he had been in very depressed spirits. On Wednesday morning he remained in bed, and did not eat any breakfast. Captain M., who resided in the same house with him, went to his bed-room at half-past 11 o'clock, and asked him whether, as he had not eaten his breakfast, he would not soon take a chop and a glass of port wine. The deceased replied that he would do so in an hour or so. Captain M. was about to leave the room when he perceived a tumbler on the edge of a dressing-table, and on removing it to its proper place he found that it contained some dregs of laudanum. He instantly sent one servant for a doctor, directed another to prepare strong coffee, and told a charwoman, who was working in the house, to search for the phial. This woman found a two-ounce phial, labelled "Laudanum—Poison." Mr. C., son-in-law of Captain M., stated that the deceased was very melancholy, and could not derive comfort from anything. On the ordinary topics of conversation Mr. M. always appeared to him to be perfectly rational. Dr. Turle was called in to see the deceased shortly before noon on Wednesday; finding that he had taken opium, he administered sulphate of zinc as an emetic, but without much effect. He got coffee and ammonia into the stomach of the deceased, and washed it out three times. The pupils of Mr. M.'s eyes were much contracted, and during the afternoon he was lethargic and partly comatose. Galvanism, among other restoratives, was resorted to in the course of the evening, and with decided results. One pole was applied to the forehead, and the other to the base of the spine; and the galvanic application imparted much additional animation to the deceased. Towards Thursday morning the poison symptoms rapidly decreased, and Mr. M. had less of them about 5 o'clock than at any former period of the illness arising from the laudanum. At half-past five he was drinking coffee, when a portion of it got into the windpipe and produced asphyxia. Mr. M. expired instantaneously. Several Medical gentlemen, including Dr. Turle himself, were present at the time; but all their efforts to restore respiration after the liquid had entered the lungs were unavailing. He had made a post-mortem examination, and had no hesitation in stating that death had resulted from the state to which Mr. M. had been reduced by the poison. The Coroner asked Dr. Turle whether

he had examined the interior of the heart. Dr. Turle replied in the negative; but observed that from its external appearance he should pronounce it healthy. The Coroner said his reason for asking the question was, that, if there had been disease of the heart, such disease, without the poison, might be suffieient to aecount for the deceased not having been able to recover respiration after the coffee got into the lungs. Dr. Turle did not believe that to be the case in this instance. He had no doubt that, if it had not been for the poison, the action of the coffee in the lungs would not have been sufficient to cause death. It was very rare that any one reeovered after so large a dose of laudanum. Mr. M. would have died very soon after he took the poison only for the Medical treatment. Dr. Turle further observed that the deceased had informed him that he had taken the bottle full of laudanum, and that he had done so for the purpose of eommitting suicide. The Coroner said he was glad to learn that the application of galvanism had produced the effeets they had heard described, for he believed he had been the first person to reeommend this remedy in poison cases. He had applied it years ago. The jury found that the deeeased had died from the effects of poison taken by himself while in an unsound state of mind, owing to a domestie affliction; and they expressed their opinion that everything possible had been done by his relatives and Medieal attendants to save his life.

Munificent Bequests.—Joseph Almond Cropper, Esq., barrister-at-law, died on Saturday, September 27th last, at his residenee, Fulwood-house, Gray's-inn, London. He has left by his will the following legaeies, clear of legaey duty, viz.:—£200 to the Kent and Canterbury Hospital, £200 to the Midland Institution for the Blind, £200 to the Leieester Infirmary, £200 to the Stafford Infirmary, and £100 to each of the twenty following eharitable institutions:—Great Northern Hospital, King's-cross; Royal Free Hospital, Gray's-inn-road; St. Mark's Hospital, City-road; Hospital for Sick Children, Great Ormond-street; University College Hospital; Hospital at Brompton for Consumption; St. Mary's Hospital, Paddington; Strangers' Friend Society, Royal General Annuity Soeiety, Soeiety for the Suppression of Mendicity, London Soeiety for the Protection of Young Females, Female Aid Soeiety (late London Female Mission), Indigent Blind Visiting Society, Ragged Sehool Union, Fox-court Ragged Sehools, Gray's-inn-lane; Adult Orphan Institution; Trinity National School, Bedford-row; Field-lane Ragged Sehool and Night Refuge for the Utterly Destitute, Bethnal-green Philanthropie Pension Society, and City of London Hospital for Diseases in the Chest. The testator also devises houses and land, woods and woodland, in the parishes of Fawkham, near Dartford, Ash, Hartley, Horton Kirby, Milton-next-Gravesend, Plumstead, Meopham, and Luddesdown, in the eounty of Kent, to the Governors of the Westminster Hospital. He gives his manor of Ashbourn, and houses and land in Caldon and Cauldon, Staffordshire, Whitwiek, Thringstone, Belton, Sheepshed, and Dadlington, in Leieestershire, to St. George's Hospital. He gives his fee farm rents in the eounties of Middlesex, Surrey, Sussex, and Chester, and his houses and land at Windsor, Wapping, Kingston-upon-Thames, East Greenwich, Croydon, and Fulwood House, and all the residue of his personal estate, to the Middlesex Hospital. Mr. Cropper has also left several small estates and legacies to his friends, and appointed W. Latham, Esq., of Melton Mowbray, and George Capes, Esq., of Gray's-inn, his executors and trustees. This gentleman was a native of Loughborough, and died at the age of 79, and left no relatives, his only son having died unmarried about twenty-three years ago. The rent of the property devised to the Westminster Hospital amounts to about £800 per annum; to St. George's Hospital, £700; and the Middlesex Hospital will receive in rents £600 per annum, and money to the amount of £4000. These Hospitals are enabled by speeial Acts of Parliament to reeeive lands, notwithstanding the Statute of Mortmain.

Poisonous Mussels.—A wooden vessel, the bark *Robert*, has for seventeen or eighteen months been lying up in the great float at Birkenhead; and on Monday last she was brought aeross the river to Liverpool, and placed in the Clarence graving-doek for the purpose of undergoing repairs. When she was brought into dry doek, it was found that the bottom of the vessel had beeome covered with thousands of mussels and large quantities of weeds. In the proeess of repairs the mussels were on Friday seraped off the ship's sides, and as a delicaey these shellfish were distributed among the men employed on her. Among the number, a ship earpenter, named Cunningham, who lives in No. 5 Court, Prussia-street, Oldhall-street, carried home about a quart; and about half-past six o'eloek in the evening, upon his arrival at home, he requested his sister, Bridget Cunningham, 24 years of age, who keeps house for him, to eook the mussels. Afterwards both brother and sister partook of the mussels, and gave some to three children—Mary Anne Hagan, Sarah Hagan, and Ellen Toner—who live in the same court. About 8 o'clock, soon after they had partaken, all the persons who had eaten the fish became very ill; Bridget Cunningham became rapidly worse, and at a quarter to 11 o'clock the same night she died, after suffering extreme pain. Shortly before the death of the young woman the symptoms of the others became so alarming that Mr. Williams, Surgeon, Vauxhall-road, was sent for; his efforts, though unable to save the life of the young woman, were happily sueeessful in the other eases, and soon the patients, though not out of danger, showed symptoms of reeovery. Mr. Williams was also called to attend another ship carpenter, William Kilread, living in No. 6 Court, Johnson-street, who under similar eircumstanees had partaken of mussels in an uneooked state obtained from the bottom of the *Robert*. In the course of Friday night this man's life was despaired of, but under Medieal treatment he was ultimately plaeed out of danger, though on Saturday he was still unable to move his limbs. Several other persons who had eaten some of the mussels were likewise rendered exeeedingly ill, but we have not heard of any fatal ease exeept that of Bridget Cunningham. The patients are reported to have displayed all the symptoms of arsenieal poisoning, and it is supposed that the shellfish had become tainted with that poison from the ship's bottom. The vessel was not sheathed with eopper or yellow metal, but was coated with some green-eoloured eomposition generally used for the preservation of iron hulls, and it is believed that arsenic is a prineipal ingredient in the manufacture of the eompound. The extent to whieh the poisonous mussels have been circulated cannot easily be aseertained, as almost all the workmen earried off basketfuls from the dock, and some are even known to have sold them. The officers of the Health Committee were as speedily as possible apprised of the misehief, and they took all available steps to eolleet and destroy the tainted shellfish. [There is no need to invoke *arsenic* in such a ease as this. Mussels are under certain eonditions poisonous *per se*; whereas arsenie would most likely have destroyed *them*.]

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The unusual demands on our space have compelled us to postpone our article on St. Bartholomew's Hospital and School until next week.

A. C. K.—His name does not appear on the Official Register.

F. R. H. H. D.—Apply to the nearest Physician, and pay him his fee.

Medicus.—He is clearly entitled to a fee for each patient.

Calculus—Pillischer, New Bond-street; Highley, Dean-street, Soho; or Matthews, Portugal-street.

A. R., Paris.—Write to the Secretary of the University of Edinburgh. Your position is unusual, and does not come under the general rules enumerated in our Students' Number.

The *Darlington and Stockton Times* of October 25, contains an interesting case of apoplexy, which overtook an unfortunate farmer as he was riding home in the dark from market. The diagnosis was very clearly made by Dr. W. Haslewood.

It may save our readers some inconvenience to learn that, at a meeting of the exhibitors of Class 17, on October 22nd, it was determined, by the following firms, not to sell any of their goods in the Exhibition building, and that a card be placed in each case to that effect:—

H. H. Bigg, W. H. Bailey, James Coxeter, Wm. Coles and Co., W. F. Durroch, F. G. Ernst, Evans and Stevens, John Evrard, J. and J. Ferguson, Gray and Halford, W. R. Grossmith, Mark Lindsey, F. Longdon and Co., W. Matthews, John Millikin, Joseph Pratt, Charles Rein, W. H. Spratt, H. Simpson, John White, Thomas Weedon, Frederick Walters, Whicker and Blaise, and John Weiss and Son.

The following curious handbill has been forwarded for publication. The writer will find a quieter system more favourable to the general adoption of his views:

"£100 Reward to any Person or Persons who will Refute, in Writing, the Principles of the new Physiological Views, that are comprehended in avocations of Common Life, in a Treatise, by W. Parker, M.R.C.S., L.A.C., with a Frontispiece of the Bath Mineral Hot-water Fountain, and an Appendix on the Bath Mineral Waters. The above sum will be given by the Author,

after the decision of a fair and open tribunal, selected from men of renown. Sold by Peach, Bath; and all Booksellers. Bath, 1857. Price One Shilling."

Alleged Unprofessional Mode of Advertising.—It is publicly stated, that copies of the Table of Contents of Dr. Edward Smith's work on Consumption, have been freely circulated amongst the subscribers to the Consumption Hospital. It is bad enough to see Medical books advertised in the newspapers; but to advertise them by circular, in the mode alleged, is one degree worse. The Table of Contents of Dr. Smith's book contains many items relating to the organs of generation. Yet it is alleged that this circular has been sent about indiscriminately. We shall willingly give any of the parties concerned an opportunity of denying this statement.

The Puckett Subscription.—Mr. Griffin requests us to announce, that since printing the names of the subscribers to the Puckett Fund, he has received one guinea each from Major W. Gordon Cumming, Lieut. G. F. Blowers, and Henry J. Gane, Esq., all of whom are resident at Bhopawar, in the East Indies. The students of St. Mary's Hospital have also sent to him 2*l.* 3s. 6d., and Mr. Sagar, of Leeds, has forwarded ten shillings each from Mr. Clayton and Mr. W. Hall, and it appears, by the *Lancet* of October 11, that Dr. Stoeker has subscribed 1*l.*, thus raising the entire subscription to 1024*l.* 3s. 6d. Mr. Griffin has been unable to discover the addresses of about twenty subscribers: should any of them see this notice, and write to him, he will forward them a circular of the accounts. Mr. Griffin has received from Mr. Stott, Bartholomew-close, the sum of £20 8s., from the following subscribers:—Dr. Jeaffreson, £1 1s.; J. Faulkner, jun., 10s.; G. J. W. Browne, 10s. 6d.; E. Weatherley, 10s.; T. Wylde, 10s.; Messrs. Staples, £1 1s.; J. Herring, £1 1s.; Evans, Lescher, and Evans, £1 1s.; S. Booth, 10s.; Messrs. Ferguson, 10s.; T. Woodward, 10s.; J. Pepler, 10s.; G. Pepler, 10s.; Messrs. Short and Faunce, £1; J. Cutmire, 10s.; Dr. Lobb, 10s.; J. Shoolard, 10s.; P. S. Sweeting, 10s.; J. Cockrell, £1; C. Samuel, 10s. 6d.; J. Ward, 10s.; W. Asbcombe, 10s.; W. Collins, £1; C. Wood, £1 1s.; M. Samuels, 10s.; Mrs. Samuels, 10s.; C. Samuel, £1; Additional, 5s.; Miss Street, 5s.; J. Bailey, 5s.; W. Herring, 5s.; F. Bamford, 2s. 6d.; J. Payton, 5s.; J. Westrop, 7s. 6d.; R. Fox, 2s.; J. Savile, 5s.; Mrs. Stott, sen., 2s. 6d.; H. Ralph, 2s. 6d.

Man's Place in Creation.—"It might be wandering from the proper subject of these volumes if we were to pause, even shortly, to inquire whether, while the creation of a world so full of evil must ever remain the most inscrutable of mysteries, we might not be led some way in tracing the connexion of moral and physical evil in mankind, with his place in that creation, and especially, whether the law of continuity, which it has not pleased his Maker to break with respect to his bodily structure, and which binds that in the unity of one great type, to the lower forms of animal life by the common conditions of nourishment, reproduction, and self-defence, has not rendered necessary both the physical appetites and the propensities which terminate in self; whether again, the superior endowments of his intellectual nature, his susceptibility of moral emotion, and of those disinterested affections which, if not exclusively, he far more intensely possesses than an inferior being—above all, the gifts of conscience and a capacity to know God, might not be expected, even beforehand, by their conflict with the animal passions, to produce some partial inconsistencies, some anomalies at least which he could not himself explain in so compound a being. Every link in the long chain of creation does not pass by easy transition into the next. There are necessary chasms, and, as it were, leaps, from one creature to another, which, though not exceptious to the law of continuity, are accommodatious of it to a new series of being. If man was made in the image of God, he was also made in the image of an ape. The framework of the body of him who has weighed the stars and made the lightning his slave, approaches to that of a speechless brute, who wanders in the forests of Sumatra. Thus standing on the frontier land between animal and angelic natures, what wonder that he should partake of both!"—*Hallam.*

A respected correspondent asks us to notice favourably the "London Householders' Supply Association, Limited." It is an association for the extermination of tradespeople:—

"The object of the Householders' Supply Association is, to protect the householder from the extortions, adulterations, and myriad-shaped impositions of that insatiable animal of prey, the retail dealer in provisions.

"By long-recognised practice of trade, a profit of twenty-five per cent. for the retail dealer has been agreed to be a fair and recognised return for the functions which he fulfils; but, by gradual extension of this limit and by adulterations, this profit has come to be extended to forty, fifty, and even sixty per cent.; rising still higher with certain articles of luxury, such as wine, beer, spirits and tobacco. In other words, for every £100 which the head of a family spends upon the necessaries of life, he has to pay £40, £50, or £60 to the shop-keeper for bringing the goods from the wholesale depôt, mixing them with deleterious and worthless trash, and exposing them for sale, in this deteriorated condition, in a neighbouring shop.

"The Association will contract with producers for the necessary supply of provisions, &c., and buying largely in the best markets, and for cash, will command unusual advantages, both as regards price and quality. Teas, coffees, etc., will be purchased in bond. Such articles as butter, eggs, etc., will be received daily, per railway, fresh from the country.

"All the goods sold by this company will be guaranteed to be perfectly pure, unadulterated, and of the very best quality."

In other words, it is an association of consumers, to buy goods wholesale, and divide the retail profits amongst themselves. To be sure, there is one little requisite:—

"To secure the services of an honest manager, and to supervise the working of the affair closely and carefully, will be the duty of the projectors, and as they perform this well or ill, the institution will either stand or fall."

You must have an *honest* manager, and a man who understands his business; but this is the rock on which all such associations suffer shipwreck. A man who understands trade likes to have the retail profit to himself, and generally goes off with the till. The proprietors lose their capital, and, after much vexation, find out that it really is cheaper to go to Smith, the grocer, in the next street, and pay him sixty per cent. for letting you have what you want, when you want it, and in your own quantities, without further liability, than to set up a business of your own, which, to be successful, will take no end of time and trouble, and which experience shows to lead, in nine instances out of ten, to a regular smash.

Brainless Children.—Our enlightened contemporary, the *New Moon*, published at the Crichton Royal Institution, Dumfries, quotes a case of an acephalous child, recorded by Dr. Heysham, of Carlisle, in the last century:—

"The birth of the child occurred in the Carlisle Dispensary on the twentieth day of May, 1788. On observing the child's head, it appeared to have no covering for the protruding brain except the pia and dura mater, the bones of the upper part of the skull being awanting. These circumstances naturally drew the Dr.'s attention to the quality of the brain itself, on which he makes the following observations:—'The colour of this substance was a dark reddish brown; and upon examining it particularly, I thought I could perceive the division of the two hemispheres of the brain, and likewise the division of the cerebrum from the cerebellum. The child was full-grown, and seemed in perfect health; her limbs were plump, firm, and well-proportioned, and she moved them with apparent agility; the external organs of sense were also perfect. She took a sufficient quantity of nourishment for several days; but sometimes during the action of swallowing startled a little. She lived till five o'clock on Sunday morning, June the first, when she expired; but some time before her death was affected with slight convulsions. During the three or four days preceding her death, there was a constant discharge of a thin, watery fluid, somewhat tinged with blood, from the excrescence, which greatly diminished its bulk; for at her death it was only about half the size of what it had been when she was born, and the surface was in some places beginning to put on the appearance of mortification. On examining this excrescence after death had ensued, it was found to consist of small bags of different sizes that were filled with a brownish coloured fluid, these being interspersed with membranes and blood-vessels; it had no visible connexion with the spinal marrow; neither was there to be seen any traces of cerebrum or cerebellum, or of any other medullary substance."

WORDSWORTH'S SONNETS ON THE PUNISHMENT OF DEATH.

Whoever desires to know both sides of the question, should read these Sonnets. Is it more humane, more merciful, more for the interest of society and of the prisoner, to shut a man up for his life in a bagne, or to extinguish his life?

"Ah! think how one compelled for life to abide
Locked in a dungeon needs must eat the heart
Out of his own humanity, and part
With every hope that mutual cares provide;
And, should a less unnatural doom confide
In life-long exile on a savage coast,
Soon the relapsing penitent may boast
Of yet more heinous guilt, with fiercer pride.
Hence thoughtful Mercy, Mercy sage and pure,
Sanctions the forfeiture that Law demands,
Leaving the final issue in *His* hands
Whose goodness knows no change, whose love is sure;
Who sees, foresees; who cannot judge amiss,
And wafts at will the contrite soul to bliss."

Sonnets upon the Punishment of Death, No. 11.

Mr. French's "Treatment of Boils and Carbuncles by Subcutaneous Incision."—The following are extracts from Mr. French's paper:—

"The extent of the induration of the integument is first carefully examined, and then a tenotomy knife is passed horizontally underneath it, the blade turned upwards, and, the forefinger of the left hand serving as a guide upon the upper surface of the tumour, the hardened structure is cut through, taking care not to wound the surface of the skin; it is, in fact, a subcutaneous division of the disease, and is carried to the utmost extremity of the induration.

"The disease, previously spreading, is at once arrested in the direction of the knife, but it is necessary to make a second puncture at right angles with the first, and thus a crucial incision, or it will still spread in the opposite direction. The bleeding is sometimes considerable, sometimes trifling, and, when this has ceased, the whole surface of the tumour should be covered with collodion.

"Immediate relief is felt by the patient as the result of this proceeding, and he is able at once to pursue his ordinary avocations.

"The inflammation speedily resolves, or if any suppuration whatever occurs, it is in very small quantity, and easily finds vent through one of the punctures.

"This operation being somewhat slow and painful, it is only where an immediate result is greatly desired that I venture to adopt it, preferring generally the quicker method of dividing the integument completely; but it is interesting to know the fact of its invariable efficacy. An inquiry is often made by the patient whether the malady will return elsewhere if thus suddenly arrested? I do not find that a second boil or carbuncle occurs, when thus interrupted, more frequently than when the disease is left to take its course; on the contrary, where poultices are used, a recurrence is frequent; indeed, this remedy, when used for other disorders, often seems to produce the disease.

"With regard to larger and more neglected carbuncles, where the life of the patient is endangered by their extent, it is worth while making the remark, that the disease can at any time be arrested by the knife while it is still spreading. But the crucial incision is often insufficient where the disease has acquired the size of a cheese-plate. It will spread at the circumference, between the longitudinal and lateral incisions, at some

point or other, and an incision made here at once still arrests its progress. A large carbuncle will, therefore, often require to be starred to arrest it completely.

"What is called *opening* a carbuncle, that is, making a free incision simply or crucially in the centre, does not, so far as my observation goes, appear to do much good; and I think the doubt about the good effect of operative procedure, which exists in the minds of some, is due to the observation of this method alone."

The Late Graduation at St. Andrews.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"M.D. St. Andrews" is alarmed for the future credit of the St. Andrews University, because, out of 170 candidates, only 40 were rejected. As you properly reminded him, about one-fourth were found incapable of passing; surely that will satisfy "M.D. St. Andrews." Let him examine the returns of all other examining boards in the United Kingdom, and see what the proportion of the passed to the rejected bears to the University of St. Andrews.

I know many excellent Practitioners at the present time who would gladly present themselves for the M.D. St. Andrews diploma, but the list of rejected deters them; and, from the fatigue and anxiety of general practice, they find it impossible to prepare for the examination.

I think "M.D. St. Andrews" may, with little fear, leave the affairs of the St. Andrews University in the hands of the present authorities, and they will have as great a regard for their own honour as they have for the credit of existing graduates, and the future reputation of their Medical School.

I am, &c.

Fair Play.

A Curiosity.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to submit the enclosed circular to your notice, thinking that it requires exposure, as I have no doubt that other Chemists have been similarly addressed.

I am, &c.

Stroud, October 21. M.

"Literary Bureau and Agency.—The undersigned has made arrangements by which he can undertake to execute, in the most acceptable manner, all kinds of original composition in the way of Descriptive Bills, of all varieties, for new Ideas, Inventions, Concerts, Panoramas, &c. Descriptive Pamphlets, for similar purposes as the above, and for Medical Men. Descriptive Lectures, for Public Exhibitions. Addresses, Debates, Sermons, Tracts, Theses, &c., prepared for Public or Private Occasions. Newspaper Advertisements, Statements, and Prospectuses, written and displayed in the most attractive style. Translations effected in any European Language, with fidelity and spirit. Letters written, either in Grave or Humorous Styles. Works Revised for the Press. Original MSS. on hand, and for sale. The most honourable secrecy will be observed. All Orders to be delivered in person, or addressed, prepaid, enclosing a return stamp to T. V. Paterson, 3, Banks-terrace, Bow-road, London, E.

"October 10, 1862.

"Sir,—The undersigned, having had a thorough Medical education, and a constant practice of many years as a popular Medical writer for the Profession, respectfully intimates that he is prepared to execute original Medical treatises, essays, lectures, and pamphlets, on the most reasonable terms.

"He is also in possession of two original Medical MSS., one of which, with the recipes to prepare a remedy for universal use that would instantly become popular, will be disposed of reasonably.

"Yours respectfully,

"T. V. Paterson.

"A Toxicological and Chemical Diploma for sale."

"Medical Vocabulary.—Imputed Plagiarism."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your Number for the 18th ult., Dr. Robert Fowler assumes a posture of indignation at the Preface to the Second Edition of my "Medical Vocabulary," and undertakes to "dispose of its egregious errors of facts." In all that he has advanced, I see no reason whatever for expunging or changing one word of my Preface. My Preface states, that "I was startled by observing in the Medical Journals (November, 1860) an advertisement," etc. Dr. Fowler writes that his Vocabulary "was first advertised in the Medical press on Saturday, October 27, 1860," or one week earlier than stated by me; and this is the sum of his alleged "egregious errors of facts!" My assertion, that it was published nearly four months after the conclusion of my "Expository Lexicon," is founded upon the dates of advertisements as they appeared in the Medical Journals. The technical "trade-subscription," absurdly founded on by him, does not constitute publication in the ordinary sense, and so has no bearing on the subject. As Dr. Robert Fowler has accused me of "a singular perversion of dates," of "equally perverted inferences," and of asserting "the reverse of that which is true," I tell him that there is not the slightest perversion of dates, or of truth, in a single line of this reply. He has not shown that his book was advertised, as published, "before January 5, 1861." But, supposing he had, he suppresses the fact, that the "Expository Lexicon" was virtually completed, in its Ninth Part, on November 7, 1859, the Tenth being composed of "Addenda" from ancient and more advanced Medical literature, unsuited to, and not entering into, the Vocabulary; so that, by his own showing, his book was not published till above a year after the "Expository Lexicon."

But Dr. Fowler denies having ever seen any part of my "Lexicon," or the first edition of my "Vocabulary" of 1836.

"Credat Judæus Apella;
Non ego."

The very close resemblance which his "Vocabulary" bears to mine in character, arrangement, style, form, and adaptation to its purpose, precludes the possibility of my belief. In a word, its whole aspect, which differed altogether from that of any pre-existing work, is, to all seeming, imitated, but, I repeat, very "imperfectly."

He further pleads in palliation, "The author of this little book was, besides, unknown; consequently, no inquiry could be possibly made as to his future intentions," and, therefore, he "made free" with it! This exceedingly moral view of the rights of property is (happily) not likely to be of general application. The allegation, that the author was unknown, is not true. My "Medical Vocabulary" was, indeed, published anonymously in 1836, but its authorship was made publicly known so long ago as in 1852, in the prospectus of the "Expository Lexicon," then widely circulated, and in the "Address," printed on the wrapper of each of the ten parts of that work, issued periodically, the first in October, 1853. With all of denial and attempted extenuation, Dr. Fowler cannot nullify his having appropriated the idea—the very title of my original work. Having done so, and having the hardihood to avouch his misdeed, little doubt can exist as to the rest of the reprehensible proceedings.

The second edition had been again and again called for, and was "so long in abeyance only because of the engrossing requirements of the 'Expository Lexicon.'" This declaration of the Preface he has perused, yet, in the face of it, he broaches a statement, that it never would have appeared, but for his usurpation of the first.

In conclusion—and I feel sorry to have had to say so much on a course of conduct which, I am satisfied, every right-thinking man will condemn on its own demerits—having rebutted Dr. Fowler's allegations and his aspersion on my veracity, I have to ask him whether he is the same person who, eight or ten years ago, answered an advertisement of mine, corresponded with me, came to Leeds, and favoured me with his presence at my table for two or three days (sleeping only at an hotel near my house), on occasion of his seeming to entertain the project of accepting a then-contemplated transfer of my practice?

In putting this grave question—grave, I mean, if the answer be affirmative—I disclaim all motive but that of justifying myself by eliciting the truth. That gentleman, of the same name, was made aware of my lexicographical occupation, and not only saw, but leisurely scrutinised, the first edition of my original "Medical Vocabulary," as the basis of the progressing "Expository Lexicon," with which I was then constantly engaged.

I am, &c.

Leeds, October 28. R. G. Mayne, M.D.

The Brain of Man and the Apes.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—At the risk of exclusion from the category of "anatomists, great or small," I venture to add a few words on what Professor Huxley has justly termed a "preposterous controversy," in which he persists in ignoring those facts irrefragably proved against him, and in proving those assertions, the truth of which was uncontroverted.

Professor Huxley quotes Schroeder van der Kolk and Vrolik as authors "testifying to the accuracy of his statements." The Dutch anatomists, however, say, in their description of the orang's brain: "A vrai dire, ce lobe postérieur ou occipital ne se prolonge pas autant que chez l'homme; il ne recouvre pas si bien le cervelet, du moins il ne le cache pas complétement, surtout vers les côtes." In their figure of the top of the brain, the cerebellum is not only uncovered laterally, but mesially. It is to this mesial "denudation" of the cerebellum in the majority of Quadrumana that I would especially call your readers' attention. In Dareste's figure of the magot's brain (a), the cerebrum not only does not project beyond the cerebellum, but leaves the latter mesially uncovered. The same is observable in *Midas rufimanus* and in Dr. Rolleston's orang. Stress has been laid on the fact, which has never to my knowledge been denied, that, in some *Cynocephali* and *Macaci*, the tips of the cerebral lobes stretch beyond the cerebellum; and it has been attempted to homologise such post-cerebellar developments with the higher, broader, and wider posterior lobes of man. The presence of this development, however, cannot invalidate the original definition of the sub-class *Archencephala*, which merely speaks of the "posterior development [extending in advance of the olfactory lobes, and further back than the cerebellum] being so marked, that anatomists have assigned to that part the character of a third lobe," etc. Is Professor Huxley's idea of *extension* or posterior development so confused that he cannot conceive it otherwise than as a horizontal prolongation? Such an interpretation is a mere "fallacy of confusion," based on an entire misapprehension of the original definition of the sub-class *Archencephala*.

The controversy, however, is not really one of facts, nearly to the extent which Professor Huxley seems to imply. If he had had the patience to give due weight to the opinions of the zoologists opposed to him, or had quoted the entirety of their evidence (b), much of the discussion might have been saved, without the frequent necessity of that form of rhetoric so often employed by him of "direct and unqualified contradiction." I fully expect, as Professor Huxley is pledged to a statement (c), that the "total absence of the posterior cornu to the lateral ventricle" is a character perfectly obvious in the brain of *Lemur mongoz*, a "direct and unqualified contradiction" will be given to Burmeister and Flower, who have both demonstrated the existence of ventricular fissures in the brains of *Lemuridæ*.

But, says Professor Huxley, there is "a better backward development" in the cerebrum of the *Chrysothrix* and *Cebus* than in man. Granted, that there is a longer horizontal development. But will he tell us what monkey exhibits a third lobe projecting beyond the cerebellum, of which the post-cerebellar part is nearly as large in actual contents, estimated by length, breadth, and height, as the correlative post-cerebellar part in man? With respect to the logical difficulty of recognising the horizontal cerebral development beyond the cerebellum as co-extensive with the homologous part in man,—admitting the fact,—the definition of the sub-class *Archencephala* is not invalidated by its demonstration; for the differences between the brain of man and the highest ape are the points under discussion. In man, the cerebrum projects far beyond the cerebellum; in the gorilla it does not, and we are wholly ignorant of the ventricular structures in this ape. This broad point of difference between the highest monkey and the lowest man being admitted, it will not help Professor Huxley's case to adduce the testimony of inferior monkeys, in which the posterior lobes of the cerebrum are prolonged over and beyond the cerebellum, which, nevertheless, is not covered by them.

Content, Sir, if I am in error, to err in the excellent company of John Hunter, Tiedemann, Anderson, Burmeister, Gratiolet, and Vrolik.

I am, &c.

A Zoologist.

Death from Chloroform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As it is desirable that we should have as many accurately-reported accidents from chloroform as possible, when these deplorable misadventures occur, the following seems one of some importance and interest, sent to me this week from Stroud. Nothing can be better than the evidence of Mr. Cubitt, except, perhaps, that in using an inhaler, with

(a) *Ann. des Sciences Naturelles*, 4th series, t. iii. p. 65, pl. 3., f. 15.

(b) Compare *Natural History Review*, p. 71, line 24 from top, with *Journal of the Linnean Society*, vol. ii., p. 20, lines 3 to 10 from top.

(c) *Natural History Review*, vol. i., p. 84.

the impression that it reduces the "*inevitable* risk of chloroform itself to a minimum," he is using a word rather strong. Are railway accidents inevitable? Nor is it very clear, I think, that "there are individuals in whom unconsciousness from chloroform is necessarily incompatible with life" (this, of course, is a paraphrase for idiosyncrasy); and "that a Medical man is utterly unable to select such cases from the general mass." We have, no doubt, a good deal yet to learn about chloroform; it is not at all as easy a matter as my friend, Mr. Lister, makes it in "Holmes's Surgery;" it is exactly because it is not as he has laid it down that it requires such constant study. If I criticise Mr. Cubitt's evidence, it is because I happen to know that he is one of the best Surgeons in Gloucestershire; but it seems a pity, still, to encourage in the public mind the idea, that there is always a mysterious and inevitable risk hanging over the use of chloroform. I think I see the cause of the accident here; but the case itself will prove suggestive to each reader. I am, &c.

Sackville-street, October 27. CHARLES KIDD.

P.S.—I am afraid I always appear as a kind of amiable "banshee," or Cassandra prophet of evil, in these cases. But if I am dull and lugubrious, as Goldsmith says, be assured I have a purpose under it. I value Mr. Cubitt's evidence so highly, I hope he will excuse my remarks.

"An inquest was held, on Thursday, at the Royal George Hotel, before Mr. Ball and a respectable jury of fourteen tradesmen, on the body of Thomas Weight, aged 23 years, who lived at Painswick, who had died in the Hospital that morning while under the influence of chloroform. The inquiry was commenced at half-past two.

"Mr. Cubitt, M.R.C.S., deposed: I saw the deceased on the afternoon of October 2, at the Hospital. I had previously seen him at Stroud Union. I found him suffering from an abscess in and about the neighbourhood of the knee-joint, the result of an accident, which had happened about a fortnight before his admission to the workhouse. He told me that a large knife had fallen from the chimney-piece of a kitchen chimney, and stuck in the upper part of his leg; and he also said, that for many years past he had been lame of that leg, but that he was free from all pain and inconvenience to the date of that accident, and up to that time had followed the calling of a chimney-sweep without difficulty. I continued to see him almost daily at the Hospital, and the case not improving, consultations were held on Tuesday and Wednesday last, and the removal of the limb was unanimously recommended by all the Medical officers of the Hospital. In compliance with his own earnest wish, to-day (October 23) was fixed as the earliest possible date for the performance of the operation. I gave instructions that he should have his breakfast earlier than usual, with the express view of rendering the administration of chloroform less dangerous, and gave directions as to what that breakfast should be. His lungs and heart had been previously examined by Dr. Paine and myself with a view to determine whether the administration of chloroform was likely to be attended with more than the average amount of risk. The result of the examination was entirely satisfactory, nothing indicating disease of the heart or lungs. In order to spare the pain and fatigue of being moved, it was arranged to operate in his own ward, and to administer the chloroform in his own bed, previous to his being placed on the table. The instrument employed for the purposes of inhalation was that invented by Dr. Snow, the express purpose of which is so to dilute the vapour of chloroform with atmospheric air as to reduce the inevitable risk of chloroform itself to a minimum. The inhalation was commenced a few minutes after eleven. Dr. Paine held the instrument, but I was, of course, equally associated with the administration of the chloroform. While Dr. Paine watched the countenance and respiration and pulse of the wrist, I kept my own finger on the pulse at the ankle, throughout the whole proceeding. There was a little temporary excitement at the earlier stage of the inhalation, which soon subsided, and the patient passed into a tranquil sleep. There was no coma, no congestion of the face, nothing approaching to apoplectic stertor, and the pulse never once failed or faltered. He was then removed from the bed to the table, in apparently the most satisfactory condition. I turned round to see that the instruments were at hand, and heard the patient make a noise as if about to vomit. I turned round, and found him apparently dead. There was no pulse at the wrist, no respiration, and the heart could not be heard to beat. I immediately opened the larynx, and introducing a flexible tube, inflated the lungs artificially. Stimulants were poured down his throat, strong ammonia applied to his nostrils, galvanism made use of, the surface of the body dashed with cold water, and artificial respiration, after the manner recommended by Dr. Marshall Hall in such cases, was assiduously persevered in, until it was quite evident that life was entirely gone. I have this afternoon made a post-mortem examination in conjunction with Mr. Blagden. It was made three hours and three-quarters after death. Mr. Blagden has our written notes of the appearances in detail. With the exception of the disease for which we proposed to remove the limb, we found all the organs in a state of almost typical health. Had it been possible to examine all the organs separately before death, as I did after, I should have concluded that of all patients I had ever seen he was the very one who might fairly have been supposed to have taken chloroform with the greatest impunity. The immediate cause of death was paralysis of the heart, the consequence of the inhalation of the vapour of chloroform, which acted as a poison upon its muscular tissue. That such a person should so have died demonstrates that there are individuals in whom unconsciousness from chloroform is necessarily incompatible with life. At the same time, a Medical man is utterly unable to select such cases from the general mass.

"Mr. Blagden, M.R.C.S., deposed: This afternoon I made a post-mortem examination of the body with Mr. Cubitt. I quite agree with him in all that he has said, so far as it has come under my observation. He entered into full technical details of the appearance of the heart, lungs, and brain, which he described as being perfectly healthy. The leg was so diseased that amputation was absolutely necessary. I agree with Mr. Cubitt, that the cause of death was paralysis of the heart. I should not have hesitated to administer chloroform in such a case. I have never seen more healthy post-mortem appearances.

"In answer to a juryman, Mr. Cubitt said the deceased expected to have chloroform administered, as it was always usual.

"The Coroner inquired if the jury were satisfied with the evidence adduced, and they expressed themselves as perfectly satisfied. Mr. Cubitt said he would like other Medical gentlemen to give their evidence on the subject. Dr. Paine said he was responsible, with Mr. Cubitt, for the administration of this chloroform, and he was there to answer any question that might be put to him. The Coroner observed that there was not the slightest necessity for it, and that he should be guilty of gross injustice to the gentlemen already examined, if he doubted their evidence, by asking for any corroboration of it.

"The jury then immediately returned a verdict to the effect that the deceased died from paralysis of the heart, caused by the inhalation of the vapour of chloroform; and they expressed an opinion that the greatest care had been used in its administration, and that not the slightest blame attached to the Medical gentlemen."

COMMUNICATIONS have been received from—

Dr. R. D. THOMSON; A. R.; Dr. K. MCLEOD; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY; Mr. BIRKETT; Mr. C. DE MORGAN; Dr. W. ABBOTTS SMITH; Mr. TUDOR; Mr. MORTON; Professor MAGRIE; Dr. RAMSKILL; Mr. NIBLETT; Mr. F. COOPER; Mr. PARKES; A. C. K.; FAIR PLAY; AN OLD STUDENT; Dr. WADHAM; MEDICUS; THE JEWISH CHRONICLE; Mr. R. GRIFFIN; Dr. KIDD; Mr. C. H. MOORE: Mr. IRVINE; Dr. ALTHAUS; Professor ROLLESTON; F. R. H. H. D.

VITAL STATISTICS OF LONDON.

Week ending Saturday, October 25, 1862.

BIRTHS.

Births of Boys, 990; Girls, 900; Total, 1890.
Average of 10 corresponding weeks, 1852-61, 1668·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	609	615	1224
Average of the ten years 1852-61	551·7	514·9	1066·6
Average corrected to increased population..	..	..	1173
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	5	23	6	3	6	2
North ..	618,210	..	8	23	3	8	8	5
Central ..	378,058	..	6	14	2	2	8	7
East	571,158	4	20	18	2	4	11	15
South ..	773,175	1	13	25	5	9	20	10
Total.. ..	2,803,989	5	52	104	17	26	53	39

APPOINTMENTS FOR THE WEEK.

November 1. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. The President's Address. Report on Epidemics. Dr. B. W. Richardson, "On Anomalous Exanthems."

MEDICAL SOCIETY OF LONDON, 8½ p.m. General Meeting; and Dr. Thudichum, "On the Treatment of Dropsies in Connexion with Diseases of the Kidneys, the Liver, and the Blood."

4. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. Stephen H. Ward, "Cases of Obstruction of the Bowels."

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Dr. Braxton Hicks, "Five Cases of Vaginal Closure." Dr. Archibald Hall (Montreal), "Case of Puerperal Convulsions."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

7. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of Council.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON, 8 p.m. Practical Evening, for the Narration of Cases and the Exhibition of Specimens.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—Removal of Great Toe-nail; Removal of Tumour from the Breast; Excision of Knee; For Vesico-Vaginal Fistula; For Thickened Bursa Patellæ.

By Mr. Wood—Radical Cure of Hernia.

By Mr. Henry Smith—Amputation of Great Toe.

ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE V.—*Relation of the Size of the Red Corpuscles to that of the Animal—Law—Relation of the Short Diameter of Birds' Corpuscles to the Diameter of the Corpuscles of Apyrenæmata—To the Respiration and General Activity of the Species in Vertebrates—To the Brain and Perfection of the Organisation—To the Bone-cells—In Embryonic Life—Use.*

Now, having compared the structure, shapes, and sizes of the blood-corpuscles of the vertebrate sub-kingdom, we proceed to describe the relations of the red corpuscles; and to this point we shall have to revert when we come to consider their use in connexion with respiration and animal heat.

Relation of the Size of the Red Corpuscles to that of the Animal.—It has been the prevailing and only opinion, after Hewson, that there is no such relation, since he found the corpuscles of nearly the same size in the ox, cat, ass, mouse, and bat. But, while confirming the accuracy of his observation as to animals of such different orders, I soon saw that, in a really natural order or family of mammalia and birds, other things equal, the largest corpuscles will generally occur among the large species, and the smallest corpuscles among the small species of that order or family. Look, for example, at the diagrams of the corpuscles of Rodentia and Edentata, orders characterised by large corpuscles; and those of ruminantia, an order, on the other hand, characterised by small corpuscles. Compare the minuteness of the corpuscles of the tiny musk-deer and brocket deer, of the ibex and goat, with the largeness of the corpuscles of the great bison, of the aurochs, of the wapiti, sambur, and moose-deer; note the larger size of the corpuscles in the great ant-eater than in the armadillo; and the equally remarkable contrast between the size of the corpuscles of the large capybara and those of the small rodents. Deviations, on the contrary, were noticed in the Feræ. Mr. Hunter, who was ignorant of the characters of the blood corpuscles, originally and truly observed, that "birds vary less in all their parts than the first class." Accordingly, we have already shown that, as might have been expected, the size of the corpuscles is much less variable in birds than in Apyrenæmata; and has throughout the class so much more relation to the size of the species, that had Hewson compared the large corpuscles of the great Struthionidæ or Rapaces, with the small corpuscles of the little Insectivoræ or Granivoræ, he would not have said, without qualification, that the corpuscles are not disposed to be larger in large than in small animals. Indeed, no instance is yet known, *cæteris paribus*, of a prevalence of the largest corpuscles in the small, and of the smallest corpuscles in the large birds, including a sufficient number of species to compensate for aberrations; so that the whole of the class resembles, in this respect, a single order of Apyrenæmata, and is alike without a constant gradation in the size of the corpuscles, relatively to the size of the species, the rule only applying with many such exceptions as are shown in my Tables of Measurements referred to in Lecture III. For example, in the mouse and the gigantic rat the corpuscles scarcely differ in size; in the noctule they are just appreciably smaller than in some of the more diminutive bats; and in the hornbill larger than in some much bigger birds, as the pelican. Our knowledge is not at present sufficient to admit of a calculation of all the disturbing circumstances in either class, of which differences in the relative proportion of the red corpuscles to the other proximate constituents of the blood, hibernation, and peculiarities of habits, economy, or structure, may be among the number. Of the many exceptions in both classes, some may disappear as our knowledge extends, and some are such as might be expected from what we at present know. They are commonly but slight, and to enumerate more of them would be tedious and unnecessary, as they may be seen in the Tables of Measurements just mentioned; which, as well as the observations in the Appendix to Gerber's Anatomy, will also show that my view of the connexion between the size of the corpuscles and that of the animal was always confined to the two upper, and never extended at all to the two lowest classes of vertebrates. On the contrary, some of the great Ophidia, as python, were always shown in those Measurements to have smaller corpuscles than such little species as anguis and coluber. It is, therefore, needless to notice the so-called exceptions of certain reptiles and fishes which have been incorrectly adduced against the observations in question.

Law.—The term "law" was injudiciously used, though only in a figurative sense, in my earlier observations, for this relation; but further experience has led me to the belief, that this word "law" has too often been rather abused than used in physiological science, and might be frequently better avoided altogether. We do, indeed, observe certain conjunctions or sequences which occur with such remarkable order as to constitute a rule, with more or less exceptions; and other concurrences again, which only exhibit a disposition or tendency of this nature, subject to disturbing circumstances of unknown force, which we cannot fairly estimate in the present state of science, but which may fall into order, and explain themselves, as our knowledge becomes more exact and extensive. Of this last kind is the relation between the size of the corpuscles and that of the animal in the two highest classes of vertebrates. Even in the natural sciences a law is very different from a mere generalization, and, indeed, is nothing less than a fixed correspondence of cause and effect; further, in its absolute or highest perfection, conceivable only of the Supreme Being, as so admirably explained in the first book of Hooker's "Ecclesiastical Polity."

Breadth of the Red Corpuscles of Birds and Apyrenæmata.—The short diameter of birds' corpuscles, so far from being always the same, as stated in Dr. Todd's "Cyclopædia of Anatomy," is really very variable; and so constant is the relation between the measurements of the short diameter of the corpuscles of birds and the diameter of the corpuscles of Apyrenæmata, that it may be accepted as a rule. Indeed, I have found no example in which the breadth of the oval corpuscle of a bird does not closely agree with the diameter of the circular corpuscle of some one or other species of Apyrenæmata; whereas such an approach of the two lowest classes to the highest would be the exception, the coincidence being only disposed to reappear in some fishes, in which the short diameter of the corpuscles may agree nearly with, or but little exceed, the diameter of the largest corpuscles of Apyrenæmata. There is a general correspondence between the breadth of the corpuscles and the internal diameter of the capillary vessels throughout the vertebrate sub-kingdom.

Relations of the Red Corpuscles to the Respiration, and to the General Activity of the Animal.—The large proportionate quantity of the corpuscles is always, and their small size generally, characteristic of the warm-blooded vertebrates. In other words, the blood of Apyrenæmata and birds has a much greater proportion of red corpuscles than the blood of reptiles and fishes; while the corpuscles are commonly smaller, so as further to increase the sum of their surface, in the two first than in the two last classes. Whenever exceptions to these conditions occur, they will indicate a deviation from the regular amount of oxygen taken up by the blood of the class for the purposes of the economy. For example, in certain species of the Scomber family, the richness of the blood in red corpuscles approaches that of mammalia and birds, and we find an exceptional high temperature in these fishes accordingly, as Dr. Davy has so well proved. Now, it is obvious that the total surface of a given quantity of the corpuscles will be increased in proportion to their minuteness, just as the surface of a pound of lead would be greater in small than in large shot; and his measurements show that, with this greater proportion of red blood, the size of the corpuscles is comparatively small, even in that huge species—the Tunny. On this question his observations are the more valuable, as they would appear to have been made at different times, quite independently, and without the least thought of the speculative view which we have now entertained. In cold fishes, with as small, or smaller, corpuscles, the number or proportion of the corpuscles relatively to the other proximate constituents of the blood will be much diminished.

Accordingly, about two centuries ago, before the red corpuscles were scarcely known, Lower and Mayow showed a

connexion between the colour of the blood and respiration; and in recent times the special relation of the red corpuscles to that function has been abundantly proved. Moreover, whenever I have made observations on the comparative size of these corpuscles and the pulmonary air-cells, it generally appeared that there is a relation in this respect, though these examinations were not sufficiently extended to be conclusive, but only to indicate the interest of further inquiry.

On the Continent, Professor Milne Edwards has made the subject his own, as far as regards the points now to be noticed. This excellent physiologist tells us to mark the large size of the red corpuscles in dull or slothful animals, and in the slow breathing reptiles; and, on the contrary, the comparative minuteness of these corpuscles in active species and Apyrenæmata. Still, as he well knows, in pressing this inquiry more particularly, we find many facts not yet reconcileable with his view; and so he very properly only offers it as the expression of a tendency or disposition of the corpuscles, rather than as a law or rule, to assume sizes thus in relation to the greater or less activity of the lungs and general habits in different animals. By casting your eyes over the diagrams you will see the coincidences and the exceptions, both in a comparison of the different classes with each other, and in different orders of one class, as well as among different species of the same order or family. Besides reptiles and Apyrenæmata, already mentioned in support of his opinion; in opposition to it, you see how generally larger the corpuscles of birds are than the apyrenæmatous corpuscles. Among reptiles, the corpuscles are, indeed, comparatively small in the active little green lizard; but they are as large in the quick slowworm (*Anguis fragilis*), as in the proverbially slow tortoise, and larger in the lively triton than in the dull toad. I found the great Japanese salamander remarkably difficult to catch; and you see the diagram of his immense corpuscles. But such exceptions may rather be apparent than real, when the habits, economy, and structure of the different animals, as well as the various proportions of red corpuscles, are taken into consideration.

Among Mammalia, man is rather a slow animal, but I do not know that the monkeys are. Other species also, with large corpuscles, as the great anteater, the capybara, the elephant, the sloth, are not quick creatures; but the small Rodents generally are, and their corpuscles are large, considering the smallness of the species. Still, some of these are either slothful or hibernating animals, which might require to be taken into account; while, among the diagrams of all the red corpuscles just mentioned, you see one showing a smaller set of them in certain Sciuridæ, as was more particularly noticed when treating of that family, in Lecture III.

Relations to the Brain, and to the Perfection of the Organisation.—But, though the red corpuscles are undoubtedly connected with respiration, you will perceive that this increase of their number, and of the sum of their surface by minute sub-division, is also in relation to the general perfection of the organisation, of course including the lungs, and, *à fortiori*, the brain. As before mentioned, the lowest fish, the lancelet, has only pale blood; and the red corpuscles, though often larger in reptiles than in fishes, are, for the most part, comparatively scanty in this last and lowest class, and scarcely more plentiful in the one next above; while in birds, with a marked advance in the brain and respiration, there is a corresponding increase in the red corpuscles, and in the rapidity of their circulation. And, lastly, in Apyrenæmata, where we find the highest cerebral development, we have the blood very abundant, the red corpuscles in the largest quantity, and in their peculiar and highest form.

Now, it has already been observed, that the illustrious Harvey described the blood as the primogeneal part, the fountain of life, the centre of the vegetative faculty of the animal. And Mr. Paget, who has so well traced these relations between the blood and the nervous centres, concludes, also, that it is as surely the highest member of the parts concerned in organic life, as the brain is the highest organ of animal life; the blood appearing sooner than any of the persistent organs of organic life, just as the brain is before the subordinate organs of animal life.

Relations to the Bone cells.—When the important discoveries of our late and lamented Professor of Histology displayed the forms and value of the bone-cells in the different classes of the vertebrate sub-kingdom, it was immediately perceived that there is a relation between the size of these cells and that of the red corpuscles of the blood; the largeness of either being generally, as we have described, connected with the lower forms of vertebrate animals, though not without some such deviations or exceptions as we have already indicated.

Relations in Embryonic Life.—We have already noticed the structure and analogies of the corpuscles of the embryo; and the large size of the temporary red set during the rudimentary state of the general organisation, as discovered by Hewson, and confirmed by Prevost and Dumas, in birds and reptiles, and observed by Professors Wagner, Paget, and myself in mammalian and human embryos, is now generally known. At a later period of intra-uterine life, as I have particularly observed in the human fœtus from the fourth to the eighth month of utero-gestation, and in fœtal fallow deer, the red corpuscles are not only more unequal in size, but their average diameter may even be rather less than in the mother, and this, though some much larger and perfect corpuscles, destitute of nuclei, may be present in the fœtus. Indeed, this inequality in the magnitude of the perfect fœtal corpuscles often makes it difficult to determine their mean size.

Use of the Red Corpuscles.—We shall be in a better position to view this very interesting branch of our subject when we come to the Lectures on the Colour of the Blood, and on Respiration and Animal Heat. Meanwhile, the description just given of their relations cannot but have suggested to you that the red corpuscles, as carriers of oxygen, must be of immense importance in the distribution of this potent agent throughout the economy of vertebrate animals; and in what manner will be more particularly shown in due course. Upwards of a century ago it was supposed that the red corpuscles are converted into fibrin; and a similar hypothesis has been revived, only to die again, in our time. Nor has a better fate been shared by the more recent doctrine of the development of these corpuscles into the tissues.

ORIGINAL COMMUNICATIONS.

NOTES ON CAUSES OF EARLY MORTALITY.

By J. WHITEHEAD, M.D.

No. II.

Relations of the Sexes at Birth.

As regards the relative proportions of the sexes at birth, it would appear, from the tables representing these events in central and northern Europe, that the general average stands at about 106 males to 100 females. Slight variations in these figures are observable at different epochs; but for the aggregate of about four-fifths of the populations of Europe, excluding England, Portugal, Spain, part of Italy, and the Turkish dominions, the estimate above given, the result of observations extending, in the majority, over a series of years, seems to be nearly correct. The disparity for England, as shown in the tables of the Registrar-General, has not thus far equalled the above estimate; but it would, perhaps, be premature to conclude that the actual relative proportions for this country have, as yet, been arrived at: for, notwithstanding that it may hereafter prove to be persistently lower than that for Continental populations, yet, as a regular system of registration is of comparatively recent date in this country, and still incomplete on this point, the records of another quarter or half-century may yield very different results. Averages on a subject of this nature are reliable in proportion to the magnitude of the masses operated upon, the number of years during which the observations have been recorded, and the completeness of the system employed in the working processes.

The French registration, in such form as was then practicable, dates from the earlier part of the last century; but the records seem not to have acquired a reliable exactness until the year 1800. In the following table of births, extending over a period of fifty-four years, nine of the items represent the averages of so many quinquennial recensions, the eleventh is for four years, and the first and the last four have been rendered annually. The extreme variation for the whole of this period amounts only to 1·37, the highest being 107·38 in 1811; the lowest, 106·01 in 1841. In this enumeration all are included, both the legitimate and illegitimate, and the still-births of both classes.

Average of Births, in France, of Males and Females respectively, from 1801 *to* 1854 *inclusive.*

	Males.	Females.	Males to 100 Females.
1801	473,456	445,207	106·34
1806	471,786	444,393	106·16
1811	479,790	447,114	107·38
1816	500,385	468,549	106·79
1821	496,578	466,886	106·35
1826	511,411	480,855	106·35
1831	509,220	477,623	106·61
1836	504,416	475,330	106·10
1841	502,666	474,137	106·01
1846	516,107	482,857	106·88
1850	511,021	478,438	106·81
1851	519,759	489,065	106·27
1852	516,270	486,103	106·20
1853	504,696	470,851	107·18
1854	497,212	466,027	106·69
		Mean . . .	106·57

In the Austrian states, including Lombardy and Venice, Hungary, Transylvania, and the military frontier, the sum of births for three years was 4,104,589, of which 2,116,416 were males and 1,988,173 females, yielding an average proportion of 106·45 to 100. The variation amounted only to ·37.

The limited range of fluctuation from census to census, as exhibited in the preceding results, would indicate a population almost stationary, or but slowly changing. It bears evidence also of a well-organised registration system, no less than of a well-disciplined executive. For Russia the results on this point are widely different, although it does not necessarily follow that the Russian registration is less efficiently accomplished. The Russian birth table for a period of 33 years ending with 1833, presents a variation amounting to 13·30; the highest being 114·42 in 1802, and the lowest 101·12 in 1827. The mean average for the 33 years is 109·55 males to 100 females. Here, as in a former statement, one would be tempted to doubt the accuracy of the records, were they not officially authenticated. With a population nearly twice as great numerically as that of France, results proportionately steady and unvarying might reasonably be looked for, whereas they prove to be more than nine times less so. These wide deviations, however, do not materially affect the general relations of the sexes; for errors, if such there be, are as likely to exist on the one side as on the other.

It was already shown that the preponderance of females over males in the English population was considerably higher than that of most continental countries. The relations at birth, on the contrary, are as strikingly lower,—the average for both conditions being nearly the same in the English records, namely: for the existing population 104·9 females, and for births 104·67 males to 100 of the other sex, while on the Continent they stand at 102·8 and 106·5 to 100 respectively. There is no appreciable relation, however, between the first and second of these results in the sense of cause and effect.

The proportions of the English birth-rate have continued pretty steady during the past ten years, varying to the extent of only 1·74; the highest being 105·65 in 1852, the lowest 103·91 in 1855, as follows:—

Average Proportion of Male and Female Births in England for the Ten Years ending with 1860.

	Males.	Females.	Males to 100 Females.
1851	314,968	300,897	104·67
1852	319,050	301,962	105·65
1853	313,756	298,635	105·06
1854	324,069	310,336	104·42
1855	323,260	311,083	103·91
1856	335,541	321,912	104·23
1857	339,998	323,073	105·68
1858	334,989	320,492	104·42
1859	352,662	337,219	104·57
1860	349,799	334,249	104·65
		Mean . .	104·67

For the same term of years, the average proportional birth-rate for each of the eleven divisions under which the English registration has been arranged, shows a degree of steadiness, which gives a reliable guarantee for a due appreciation on the part of the working staff of the controlling agencies. The variation amounts to 1·80; the extreme numbers being, for the London division, which is the lowest, 103·96; and for the Eastern, 105·76.

Average Proportion of Male and Female Births for each of the Eleven Registration Divisions of England for the Ten Years ending with 1860.

Divisions.	Births. Males.	Females.	Males to 100 Females.
London . .	440,682	423,881	103·96
South Eastern.	274,101	262,705	104·33
South Midland	211,754	202,575	104·53
Eastern . .	106,508	175,912	105·76
South Western	288,804	276,001	104·63
West Midland.	413,479	396,621	104·23
North Midland	217,678	208,360	104·47
North Western	511,560	488,260	104·77
York . .	355,019	340,420	104·28
Northern. .	198,344	187,544	105·75
Welsh . .	211,313	200,579	105·35
		Mean . . .	104·73

A principal cause of the excess of the female element in the existing population of England may be found in the prevalent colonising propensity, which necessarily occasions the exportation of many more males than females. But why its male birth-rate should continue to be so much lower than that of Continental countries, as represented below, is less intelligible.

Average Birth-rate for Eleven of the principal European States.

	Average for	Males to 100 Females.
Russia . . .	33 years	109·55
Saxony . . .	7 ,,	106·63
Austria . . .	3 ,,	106·45
Wurtemberg . .	10 ,,	106·44
Bavaria . . .	3 ,,	106·33
France . . .	56 ,,	106·10
Hanover . . .	10 ,,	105·52
Norway . . .	35 ,,	105·00
England . . .	18 ,,	104·77
Prussia . . .	10 ,,	106·42
Belgium . . .	20 ,,	105·67
	Mean .	106·26

The preponderance of male births is an event which has occurred so regularly through a succession of years, that its repetition in similar order may be confidently looked for, and even its relations be computed beforehand with tolerable exactness—the influencing conditions remaining unchanged. With regard to the cause of such excess it would seem useless to speculate, lying, as it probably does, beyond the domain of scientific inquiry. Suggestions on this point, however, have not been wanting, some of which, though sufficiently absurd and altogether inadequate, have nevertheless assumed a place in popular estimation, and been invested with a degree of legendary repute which is not merited. As Nature, in certain of her systems of beings, where the organism is frail and the tenure of existence precarious, furnishes the germ of reproduction in seemingly needless abundance; so also may it be in this case, where life in the two sexes is so disproportionately assailed in early infancy, that, at the present rate of relative mortality during the first two years, were no adequate provision furnished for the contingency, the disproportion of the sexes would soon become inconvenient, and in no trifling degree embarrassing.

But this preponderating rate of male mortality in early infancy no more than counterbalances its excessive birth-rate; for, were the tenure of life equally certain in respect of both sexes during early infancy, the male element, at its present rate of excess at birth, would, in the space of a few years, become doubled. (a)

It was at one time thought that the figures representing the relative numbers of the sexes at birth had been materially influenced by fraudulent registration, a circumstance which had been occasionally detected in some districts on the Continent—the entry, that is, of male children under the names of females, with a view, on the part of the parents, to screen their sons in after-life from the penalties of conscription.

(a) Supposing the birth-rate to be continued as already stated, or, in round numbers, 106 males to 100 females, and the death-rate to be equal on both sides, the number of males, as may be demonstrated by a simple equation, would become doubled in the space of about fourteen years, four months, and four days.

This species of deception, however, must be practised on a very large scale indeed in order to change the proportions even but a trifle, and that trifle would only tend towards lessening instead of widening the disparity. Moreover, in Russia, where such artifice would be most likely to escape detection, the sexual differences at birth are found to be greater than in any other country; while in England, where no motive for a practice of such kind can possibly exist, and is consequently unknown, they stand at the lowest.

It is popularly believed that the male element is more largely preponderant among illegitimate offspring than among those born in wedlock. This impression is erroneous. There have certainly been occasions when the illegitimate male birth-rate has been in excess; as is represented in the English tables for the years 1842 and 1846, and again in 1859, when it stood at 105·7, while that for the legitimate was 104·5 to 100 females respectively; but such events are altogether fortuitous, and of seldom occurrence. Strange to say, however, these casual events, by themselves worthless, have been quoted in support of the popular notion. A brief inquiry will serve to give the relations their proper place and value.

For the fifteen years ending with 1859, the mean relative proportions of the sexes born *out* of wedlock in England is 104·26, and of those born *in* wedlock 104·70 males to 100 females, giving an actual preponderance of ·44 per cent. in favour of the legitimate. But this estimate is manifestly below the actual value. For, although correct according to the numbers of each class of births registered, it is not in reality correct for all the births which occur, as it is acknowledged, that many illegitimate births escape registration; so that the figures intended to represent the rate of illegitimacy in England as given in the tables (*i.e.* 6·5 per cent.), must be below what they should be, and the estimated proportion of legitimate male births ought, for the same reason, to be higher than that stated. A quotation from the French statistics, which, on this subject, are unquestionably more complete and reliable than our own, may serve to elucidate the point more satisfactorily.

The total number of births in France in 1842 was 962,896, of which 69,928 (7·2 per cent.) were illegitimate. Of the 892,968 born *in* wedlock, the proportion of the sexes at birth was 106·74 males to 100 females; while, of those born *out* of wedlock, they stood at 102·61 to 100. Again, at a later period: in 1856 the total number of births was 951,616, of which 67,788 (7·61 per cent.) were illegitimate. Of the 883,828 born *in* wedlock there were 105·46 males to 100 females, and of those born *out* of wedlock, 101·87 to 100.

In the department of the Seine (of which the city of Paris is the centre), there were born in 1842, 40,005 children, all included. Of this number 11,527 (40·47 per cent.) were illegitimate. But, for Paris alone, the mean per-centage of illegitimacy for the 66 years ending with 1856, was 32·40. Now, in this large proportion of illegitimate births, the preponderance of males over females, according to the popular tradition, ought to be very decided. The figures, however, show that, of those born *in* wedlock, the proportions were, for the Seine department, 103·16, and for Paris, 103·07 to 100 respectively; while, of those born *out* of wedlock, they stood, for the Seine department, at 100·33, and for Paris (the mean for 66 years), at 96·58 males to 100 females.

In contrast with the above extraordinary rate of illegitimacy, and its concomitant birth-rate relations, I will present the issue of five remote departments collectively, taken at random from the same list; the last five, namely, in the alphabetical table, comprising La Vendée, Vienne, Haute Vienne, Vosges, and Yonne. The total number of births in the year for these five departments was 46,790, of which 24,668 were males, and 22,122 females; giving an average male preponderance of 111·50, but for the legitimate alone, 111·75 to 100 females. Of the above number, 2595 (5·5 per cent.) were illegitimate, of whom 1345 were males, and 1252 females; yielding a proportion of 107·42 to 100, or 4·33 per cent. in favour of the legitimately-born.

The reader may possibly feel shocked in contemplating the state of morality which, from the above rate of illegitimacy, would seem to prevail in the French capital. He ought to be reminded, however, that the unfortunate mothers herein concerned are not all Parisians, nor by any means all Frenchwomen. It is true, many of them belong to French provinces; but many also, from other countries besides the French dominions, fly, under such emergency, to Paris, as affording a convenient asylum, with the common object of hiding their misfortunes and of providing for their unwelcome offspring in such a way as their means may enable them to accomplish. The declared rates of illegitimacy for France and England respectively are not widely dissimilar,—being for France, 7·61; and for England, 6·50. But, as the English Registrar-General states that "some of the births, especially of illegitimate children, in London and the large towns, escape registration," (b) while the French registration system renders it next to impossible to screen a birth of either kind, it is probable that the rate of illegitimacy is nearly on a par for both countries. For Scotland, in 1859 it stood at 9·59, and in the preceding year at 9·75. It is probable that the English rate is in reality not much lower than this, seeing that the results on this subject cannot, from the above-named deficiency, be taken to represent the real state of the case. The law affecting the registration of births in this country is an absurdity; for, although it inflicts a penalty for registering a birth after the expiry of six weeks from its occurrence, yet does it not inflict any penalty whatever for not registering at all. I am acquainted with several families of illegitimate children, not one of whom has been registered.

A glance at the registration tables of the two countries would serve to show that the rate of illegitimacy is considerably lower in the agricultural districts of France than in those of England; the apparent preponderance of illegitimacy for the whole of France being made up by the excess which occurs in the Department of the Seine, and other large towns.

For the nations of Central Europe, the relations of the male and female births, legitimate and illegitimate, stand as follows:—

	To 100 Females.	
	Legitimate. Males.	Illegitimate. Males.
France	106·10	103·93
Austria	106·45	104·61
Prussia	106·42	105·40
Hanover	105·52	105·11
Bavaria	106·33	103·71
Wurtemburg	106·44	106·62
Belgium	105·26	102·51
England	104·70	104·26
Mean	106·00	104·52

The male birth-rate, both legitimate and illegitimate, is thought to be generally lower in crowded cities than in small towns and districts thinly-peopled. This is undoubtedly true as regards Paris and London, each furnishing results which are below the general average, although the relative preponderance in favour of those born in wedlock remains unaffected.

For Paris, in relation to the entire population, the case stands as below:—

	To 100 Females.	
	Legitimate.	Illegitimate.
Paris	103·07	98·18
Seine Department	103·16	100·33
France (entire)	106·10	103·93
Average for ten mixed Departments, chiefly agricultural (c)	109·05	103·71
Mean	104·34	101·54

For London and the densely-crowded manufacturing districts, compared with the other divisions, which are of a very mixed character, but largely agricultural, the disparities, although less marked, have still the same tendency. The following figures represent the average results of ten years for the legitimate, and of three years for the illegitimate:—

Divisions.	To 100 Females. Legitimate. Males.	Illegitimate. Males.
London	103·96	102·92
North-Western and York (mixed, but chiefly manufacturing)	104·52	102 79
The other eight divisions (mixed, but chiefly agricultural)	104·89	103·50
England	104·70	103·40

(b) See "Registrar-General's Reports," p. 28.

(c) Basses Pyrénées, Hautes Pyrénées, Tarn-et-Garonne, Var, Vaucluse, La Vendée, Vienne, Haute Vienne, Vosges, Yonne

Comparing thus the results for rural districts with those furnished by crowded cities, it would appear that a cause of the varying disparity in the male and female birth-rate in different localities ought to be found among the circumstances arising out of the disposition of the masses; such, at least, is the tendency of the evidence yielded by the two last analyses. The subject has been recently alluded to by M. Legoyt, who seems inclined to believe that the phenomenon is explicable by the impairment of constitutional vigour occasioned by an impure atmosphere and the multitudinous vices inseparable from overcrowding.

That the cause of the differential birth-rate in large towns may be due to some of these agencies, is highly probable; but that overcrowding alone, or poverty, or local sanitary abominations, or depraved constitutional vigour, have much to do with it, is very questionable. In one of the most densely-peopled and, judging from its excessive death-rate, one of the most unhealthy towns in England (Liverpool), the preponderance of males over females at birth is, and has been for many years past, considerably above the general average. For the ten years ending with 1860, the relations stood at 106·38 to 100 females. And yet its annual death-rate for the same term of years is little less than (not 2·5 per cent. below) the births. But the two classes of births are very differently influenced in this town, the female element among the illegitimate being vastly in excess of the male.

Manchester also, comprising, within its three Unions of Manchester, Salford, and Chorlton, a population of 518,902, for the most part densely-crowded and poor, has a male birth-rate only a shade below the general average. And Birmingham with Aston, the next in importance among the manufacturing communities, having a population of 313,143, has a male birth-rate above that of the aggregate of the county towns. The results for these three towns, numbering an aggregate population of 1,347,632 in 1861, are as follows :—

	To 100 Females.	
	Legitimate. Males.	Illegitimate. Males.
Liverpool, with West Derby	106·38	74·42
Manchester	104·57	101·46
Birmingham, with Aston .	103·79	103·66

The subject may be still further exemplified under another aspect, by placing, in contrast, three distinct aggregations of the population, each differing sufficiently from the others in regard to such local peculiarities and social conditions as are liable to affect essentially the public health and influence the moral nature: three groups, comprising (exclusive of London) the inhabitants of—1, purely manufacturing towns; 2, cathedral and county cities and towns; 3, small towns purely agricultural. Each of these is circumstanced as follows :—

1. For 43 manufacturing towns, the sum of births collectively for ten years, ending with 1860, amounted to 1,706,612, of which 874,418 were males, and 832,194 females; yielding a proportionate rate of 105·07 to 100.

2. For 53 cathedral and county towns, the total number of births for the same ten years was 563,663, of which 286,197 were males, and 277,466 females, yielding a proportion of 103·15 to 100.

3. And for 60 towns, the centres of so many Unions, each numbering (including its Union) less than 10,000 inhabitants, and, consequently, almost purely agricultural—the bulk of the population being sparsely distributed—the aggregate number of births for the same ten years was 141,883, of which 72,677 were males, and 69,206 females, being in the proportion of 105·00 to 100.

The following summary represents, in brief, the facts as above stated, with the addition of the average male birth-rate of the illegitimate :—

	To 100 Females.	
	Legitimate. Males.	Illegitimate. Males.
43 manufacturing towns . .	105·07	102·72
53 cathedral and county towns	103·15	103·50
60 agricultural towns . .	105·00	105·91
London	103·96	102·92
England	104·70	103 40

From these figures it would appear that the male birth-rate in this country stands the highest among those whose circumstances expose them to influences commonly considered to be more than all others prejudicial to life and health,—inconvenient agglomeration, insufficient breathing-space both at work and at home, an impure, ozoneless atmosphere, mephitic vapours, poverty, dissipation, squalor, and some others. It is clear, therefore, that these agencies cannot be fairly reckoned among the causes of a low male birth-rate.

The cause may possibly with greater reason be sought for in the hereditarily-continued habits of luxury and inaction, together with an excess of brain labour as compared with that of the muscular system, inferable from the character of the communities furnishing the second and fourth items.

It has been shown in several of the preceding inquiries that the preponderance of the male birth-rate is constantly on the side of the legitimately-born; and there seems to be no reason to doubt that an extended examination of the records, if faithfully made, would result in a similar issue. Nor need one hesitate to look with confidence for evidence of like tenor in future, so long as the causes thereof, which in the main points appear sufficiently obvious—the absence, namely, of the skill and care towards the illegitimate which the more fortunately-circumstanced enjoy, and which affect detrimentally the male, so far as parturition is concerned, much more than the female, —continue to operate. But more on this subject hereafter.

As regards other alleged causes of the preponderance of male progeny, little need be said. Allusion to one popular notion, however, may be ventured here, if only to afford an opportunity of expressing a doubt of its validity, namely: that old men, sickly and feeble men, those of the lymphatic temperament, and they who have long suffered under specific ailments, are less likely to propagate males than females. This impression I believe to be unfounded in fact, as could be illustrated, if needful, by a multitude of examples. One such instance shall suffice. A gentleman (a well-known public character) of remarkable athletic power, married in early life a woman of his own age, and by her had three daughters, but no son; after which his wife died. At the age of sixty-nine he was again married to a lady just half a century younger than himself, and by her had five children, the first four of whom were sons, and the fifth a daughter.

The determination of sexuality is probably a process which belongs entirely to the female, and in which the agency of the male has no participation. And it is not improbable, or, at least, it would be difficult to disprove, that as many sons, comparatively, are born to old men as to young, to the weak as to the athletic, to the morbidly-enfeebled as to the healthy. Nor does occupation, climate, poverty, wealth, or any other tangible circumstance, seem, in the male, to exercise a determining influence. This opinion is further strengthened by the marked tendency to the reproduction of one sex, whether male or female, in preference to the other, being hereditarily continued in the female, but not in the male.(d)

PROFESSOR PETTENKOFER'S RESEARCHES ON RESPIRATION AND THE CHEMISTRY OF LIFE.

(Continued from page 461.)

We regret we cannot give a full and comprehensive description of Professor Pettenkofer's respiration apparatus, as such a one would be unintelligible without the aid of large diagrams, which space prevents us from giving. We, therefore, only give such details as will enable our readers to comprehend the principle according to which the machine works.

The chamber in which the experiments are made consists of sheet iron, and is furnished with an iron door, with a skylight and windows. The latter are cemented, and the walls and ceiling are soldered as air-tight as possible. The door is furnished with movable openings, for rendering possible the entrance of air, according as it might be required, through other points than through the hinges. The ventilation of the apparatus—that is, the motion of the air—is effected by two sucking-cylinders, with ventilation valves, outside of the chamber, and which may be equally moved by means of a strong clock-work. Each cylinder, in ascending, sucks in air from a tube by means of a ventilation valve, while, in de-

(d) This point could have been easily elucidated from the records of the peerage and landed gentry, had the editor arranged the births in the order of their occurrence, instead of grouping the males and females separately, and having omitted the birth-dates of many of the latter.

scending, it ejects air by means of four smaller valves. In consequence of the alternating ascension and descension of the cylinders, a current of air is driven through the chamber, which enters through the fissures and apertures of the door, and leaves again through valves at the opposite end. From the chamber the air is conducted by means of tubes to a large reservoir, from which it travels into an apparatus filled with large pieces of pumice-stone, which are kept moist by repeated sprinkling with water through a funnel. This is done, in order that the air which passes over it may there become saturated with aqueous vapour, and to prevent it from carrying away any water from the gas-meter, in which the air enters after this. The whole of the air must necessarily, on its way, pass through a large gas-meter, which will afterwards indicate the movements of the column of air, and which may be read off on six dials. In order that we may be able to control the course of ventilation in the apparatus, even if we should be absent during an experiment, a so-called controlling meter is added to the machine, the hand of which is furnished with a lead-pencil, and indicates upon a piece of paper the quantity of air which has passed through the meter at different times. The quantity of air which enters the door of the chamber is always proportionate to that which escapes by the tube at the other end of the gas-meter, unless the apparatus should not be quite air-tight, and the air should, therefore, have access to the chamber at other points than the door. If this should be the case with the chamber, it would not exert any prejudicial influence upon the experiment, as the air which would enter through any other aperture, would be quite equal to that which enters by the door; but the whole conduction between the tube which first receives the air as it leaves the chamber, and the tube at the other end of the gas-meter, must be absolutely air-tight. In order to examine these parts of the apparatus with regard to their air-tightness, common gas is introduced into it, after which a lighted candle is conducted along the whole extent of that part of the apparatus. If these parts do not close air-tight, gas will escape, and is lighted by the candle. In this way we may easily succeed in rendering the whole contrivance quite air-tight. A manometer, which is connected with the tube leading from the chamber to the pumice-stone apparatus, shows that, even if there is a change of air amounting to sixty cubic metres per hour, the air which is by the sucking cylinders drawn into the chamber, is again continually replaced by the apertures. We may, therefore, conclude that the air in the apparatus has a similar barometric pressure as the surrounding open air. If we wish to increase or diminish the ventilation in the apparatus, the sucking cylinders may be made to ascend higher or lower *ad libitum*, and, at the same time, the number of ascensions and descensions in a given space of time may be augmented or decreased. The sucking cylinders are put in motion by a steam-engine of two-horse power, and work with such regularity, in spite of the variations of tension in the boiler, that the quantity of air which passes through the apparatus during twenty-four hours in one experiment, differs from that in another experiment, extended over the same space of time, only by a few cubic feet.

As air continues to enter and to leave the chamber of the apparatus, it requires to be continually examined. Now, it is of paramount importance for the success in determining the differences in the air which enters and escapes, that, from the commencement to the end of the experiment, a perfectly identical fraction of the whole should be examined; for it is only thus that the results can be depended upon, as the external circumstances will unavoidably vary during the time over which the experiment is protracted. In other words, the air which is examined must, under any circumstances, give an absolutely correct, diminished likeness of the condition of the whole of the air at all times of the experiment. To effect this proved to be most troublesome, as all sorts of aspirators which have, until now, been constructed, were either wanting in accuracy, or required constant *surveillance*, or could only be used for a short time, and being inapplicable for experiments lasting for twenty-four hours. At the same time it appeared very difficult to render such aspirators, which have many points of connexion, air-tight, or keep them air-tight, for twenty-four hours. Finally, Professor Pettenkofer found that, if air, which does not contain any carbonic acid, is, by means of an aspirator, slowly drawn through several tubes, it takes up carbonic acid by diffusion, as the draught of the aspirator combines with the course of diffusion, which latter tends, from without, inwards. It is only possible to render air altogether free from carbonic acid, and to keep it so, if we *press* it through several apparatuses of absorption, connected in the usual manner, instead of *sucking* it, as we can counteract diffusion only by the pressure of air, from within, outwards. These circumstances may serve to explain why air, which has been washed several times with lime-water, nevertheless always contains a certain amount, however trifling, of carbonic acid; so that, even in the last bottle containing lime-water, carbonate of lime will be formed.

After many trials, Professor Pettenkofer conceived that it would be best to effect the movement of a small apparatus for analytical purposes, by means of the same sucking cylinders which put in motion the whole current of air that traverses the chamber. He, therefore, constructed two small pumps for *sucking* the air as long as it still contained water and carbonic acid, and for *pressing* it through a system of tubes, for absorbing the carbonic acid after the water had been withdrawn. These pumps are moved by a bar connected with one of the sucking cylinders, and are so contrived that the valves and pistons do not cause any friction, and, at the same time, are quite air-tight. One of these pumps suck, with every ascension of the sucking cylinder, a fraction of air as it enters the chamber; the other sucks, in the same manner, a fraction of air from the tube at the other end of the chamber, after the air has been breathed. Both pumps are moved ten times per minute, and the height of ascension is such, that each time from eight to nine cubic centimetres of air are drawn off. In this manner we procure every minute ten specimens of air as it enters, and ten specimens of air as it leaves the chamber; which is quite sufficient for conveying an accurate idea of the composition of the whole of the air. Before the air enters the pumps, it is altogether deprived of water by means of sulphuric acid and pumice-stone. After the air has entered the pumps, it is pressed further on by a system of tubes to two small gas-meters, where it arrives devoid of carbonic acid and saturated with aqueous vapour, is measured, and then escapes. In each of the gas-meters there is a thermometer indicating the tenth part of a degree, for enabling us to reduce the volume according to an equal measure of temperature and pressure of vapour. It is sufficient to examine the thermometer every two hours during an experiment. The air is further conducted to a tube in which there is pumice-stone moistened with water, and from there, in small bubbles, the size of which may be regulated by means of a cock, through a tube one metre long, and filled with baryta-water. In order to add to the security, it is then again driven through a smaller tube, filled with baryta-water, where the rest of the carbonic acid not yet absorbed may be retained. Such, however, is the power of absorption of the baryta-water in the first tube, that the fluid in the second tube remains quite clear even after twenty-four hours, during which time scarcely a milligramme of carbonic acid is added to it. The play of the whole apparatus is perfectly equal during the whole of the twenty-four hours, just as the movement of the sucking cylinders, from which its action is derived.

For the absorption of *carbonic acid*, lime-water was at first used by Professor Pettenkofer. Hydrate of lime being only slightly soluble, one cubic centimetre of lime-water cannot absorb more than one milligramme of carbonic acid, and yet a greater power of absorption would be very desirable, in order to be able to do without large masses of fluid, especially if experiments are to be continued for some time, and if we have to do with considerable quantities of carbonic acid. Moreover, the carbonate of lime which is formed, is at first always amorphous, and in this condition is soluble in water; its reaction is then alkaline, just as that of the alkaline carbonates. It is only after it has become crystalline that carbonate of lime loses its solubility in water, and with this its alkaline reaction. If there is a considerable surplus of caustic lime, the carbonate of lime remains amorphous and dissolved in the lime-water for a longer period than if the lime water is weak. For these reasons Professor Pettenkofer has discarded the use of lime-water altogether, and in its stead employed baryta-water. This latter has also the advantage, that it has a stronger action upon curcuma-paper than an equal quantity of lime-water. In order to prepare baryta-water of different strengths, Professor Pettenkofer takes either concentrated baryta-water or crystallised hydrate of baryta. The longer of the two tubes of his apparatus, in which carbonic acid is to be absorbed, contains, for experiments of twenty-four hours' duration, baryta-water, thirty cubic centimetres of which are saturated by ninety milligrammes of carbonic acid; and the shorter tube

contains a water, thirty cubic centimetres of which are saturated by about thirty milligrammes of carbonic acid. Baryta-waters of this strength are obtained, if we use for the former twenty-one grammes of crystallised hydrate of baryta and one litre of distilled water, and for the latter seven grammes of hydrate of baryta dissolved in the same amount of water. In order to titrate the baryta-water, diluted oxalic acid is used, which contains 2·8636 grammes of pure crystallised oxalic acid in one litre of water; such acid must not contain any free water, nor must it be weathered. This latter circumstance is recognised by means of a magnifying glass; the former may be avoided if we place the acid for a few hours over sulphuric acid. One cubic centimetre of the solution just mentioned is equivalent to one milligramme of carbonic acid; and if we ascertain how many cubic centimetres of this solution of oxalic acid are used for neutralising the baryta-water, we know at once how many milligrammes of carbonic acid would have been necessary for it. The index during titration is, that the alkaline reaction on curcuma-paper disappears. Curcuma-paper suitable for such experiments must be made of Swedish filtration paper, which is free from lime and glue, and of tincture of curcuma. The spirit used for making the tincture of curcuma must be quite free from acid. The fresh wet curcuma-paper must be dried in a dark room, or at night, and kept from the light. The colour must not be too dark, but should be similar to that of the lemon.

After the most considerable part of the baryta has been neutralised, and only very small quantities of it are present, so that curcuma-paper, when immersed into the fluid, no longer assumes a brown colour, yet a brown ring is formed, if we raise a drop of the fluid by means of a glass rod, and place it on the curcuma-paper. The drop is sucked in by the paper from the periphery, and its whole alkaline action is, therefore, concentrated in the periphery. This ring is so distinct and sensitive that we are, by means of it, able to perceive, with the greatest certainty, the action of one tenth of a cubic centimetre of the solution of oxalic acid, that is, of one-tenth of a milligramme of carbonic acid. Towards the end of the neutralisation, the drops taken must not be too small.

This method allows of such accurate results as could not be obtained by any balance, however sensitive. It is for this reason of great importance that care is taken that there should not be any alkaline matters on the glass-tubes, the glass-rods, the hand, or in the air. In a room in which there are strong clouds of tobacco-smoke it is quite impossible to correctly titrate baryta water, as the carbonate of ammonia contained in the tobacco-smoke would cause considerable errors. Sometimes it has even been observed that alkaline particles of dust, for instance, of the ashes of wood, are found in the air or on the paper, inasmuch as, within the sphere of action of the drop, there become visible points showing an alkaline reaction, but there is no contiguous ring in the periphery. It is also of importance that the baryta-water should not contain any traces of caustic potash or soda. The most minute traces of such substances render titration impossible, as the neutral alkaline oxalates decompose the alkaline earthy carbonates, and oxalate of lime or baryta, and carbonate of potash or soda are formed. As soon, therefore, as a trace of carbonate of baryta is suspended in the fluid—and this is always the case if baryta water has served for the absorption of carbonic acid, and has not been filtrated—the fluid will always show an alkaline reaction, if there are mere traces of potash or soda present, because the alkali which has been neutralised with oxalic acid immediately decomposes the carbonate of baryta. A fresh addition of oxalic acid again changes the alkaline carbonate to an oxalate. The fluid remains neutral for a moment until, if it is shaken with air, the carbonate acid escapes, and the carbonate of baryta, which may yet be present, again changes the alkaline oxalate into a carbonate. That such is the case may be easily recognised by our finding over and over again traces of alkaline reaction, after oxalic acid has been added several times. If we wish to examine baryta-water with regard to caustic potash, etc., which might be present, at first a perfectly clear specimen should be examined, and afterwards another, to which some precipitated pure carbonate of baryta has been added. The second specimen ought not to require more oxalic acid for its neutralisation than the first; but if such is the case, a trace of caustic alkali is present. Fortunately, we are always able to meet this case; it is, in fact, only necessary to add a little chloride of baryum to such baryta-water; after which caustic baryta and a corresponding quantity of an alkaline chloride are formed, which has no disturbing influence upon the experiment.

For withdrawing *water* completely from a current of air, chloride of calcium alone is not sufficient. Professor Pettenkofer had, at first, used chloride of calcium and hydrated sulphuric acid together. A tube which had been filled with chloride of calcium, and weighed, abstracted the largest quantity of water from the air, while the last remains of it were taken up by hydrated sulphuric acid and pumice-stone in another tube.

The use of chloride of calcium is, however, attended with inconveniences, which induced Professor Pettenkofer to dispense with it altogether, and to replace it by hydrated sulphuric acid. In order to be able to employ a sufficient quantity of this latter substance, he employed five globes connected by tubes, and placed circularly in a plane. These globes, when half-filled, hold at least fifty grammes of sulphuric acid. The air enters by a tube placed in a vertical position, and leaves by a similar one; to the latter are attached two globes, the upper one of which is loosely filled with asbest, in order to prevent the spirting of small drops of sulphuric acid. This apparatus is filled through the entering-tube by means of a glass funnel; the filling should be discontinued before the acid has reached the exit of the fifth globe. Such an apparatus may be easily weighed. It withdraws water from more than 150 litres of air, which pass through it during the twenty-four hours, in so complete a manner that, in another tube filled with pumice-stone and sulphuric acid, only a few milligrammes of water are absorbed; while, if chloride of calcium was used, the second tube always contained more than a hundred milligrammes of water.

In order to determine the presence of *hydrogen* and *pit-gas* in the air, two tubes are branched off from the system, through which the air is carried to the two pumps described above, and which are connected with two other similar pumps. These latter are moved by the same mechanism as the former, and are again furnished with contrivances for determining the amount of water and carbonic acid. These two specimens of air are, before coming in contact with the sulphuric acid, carried through small tubes destined for burning, which are filled with platinum sponge, and kept red-hot during the experiment by means of gas-burners. If there is a larger amount of water and carbonic acid in a volume of burned air, than there is in the same volume of not-burned air, the additional quantity of these substances has been formed in the tubes for burning, by the oxidation of hydrogen and pit-gas.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

KING'S COLLEGE HOSPITAL.

SEVERE CASE OF SCURVY—DEATH—AUTOPSY—CLINICAL REMARKS.

(Under the care of Dr. JOHNSON.)

[Reported by Dr. TONGE.]

In a clinical lecture upon this case, Dr. Johnson said, that, when the patient was admitted, he looked upon the case as one of scurvy, resulting from a poor diet without vegetables; and the rapid improvement which occurred after she was placed on a mixed diet, with an abundance of vegetables, had confirmed him in this opinion. The reappearance of purpuric spots on the skin, while the same diet was continued, was a remarkable fact. He believed that a morbid state of the blood was kept up by the horribly fetid gases which continually escaped from the cavity in the lung. That there was a cavity somewhere in the central part of one lung he had no doubt. The history of her chest symptoms, and the character of the expectoration, afforded conclusive evidence as to this, though

the physical signs of a cavity were wanting. The post-mortem examination showed that the cavity was surrounded by a thick layer of healthy lung, except on the under surface next the diaphragm. This sufficiently explained the absence of auscultatory signs. The chlorine drink and the creosote inhalations had a good effect in correcting the fœtor of the breath and of the expectoration, and so acting as an antidote to the poisonous gases which escaped from the cavity in the lung, and contaminated the blood. After she left the Hospital the second time, and returned to her scanty diet, she continued to grow weaker, and when she was again admitted it was evident that she was irrecoverably exhausted.

Maria E., aged 47, unmarried, a needlewoman, was admitted into King's College Hospital, on April 2, 1862, for scurvy. She is very pale and thin; no colour in the lips. The body and limbs thickly covered with spots of a dark purple colour, some few being reddish. They are not raised above the surface, and are uninfluenced by pressure. There are a few on the inner side of the lips, none on the tongue. The gums are spongy. She spits up a large quantity of dark, offensive blood, and her urine and fæces also contain large quantities. Bowels relaxed; appetite bad; tongue coated; pulse 90, small and weak.

Thirty years ago she had typhus fever, and has since been subject to a dry cough. With this exception, she has had good health till last August, when she was seized with shivering and vomiting, cough, and pain in the chest, and, after a fortnight or so, spat up about a teacupful of matter. The expectoration of matter has continued ever since, becoming very offensive after the first five weeks, and containing blood during the last day or two. Being unable to do much work, she has been obliged to live chiefly on tea and bread-and-butter, taking no vegetables and but little meat.

The spots on her body first came out on March 29, and by the evening of March 30 had covered her body. On the same day she began to spit blood, and lost her appetite entirely. On Monday, March 31, the urine contained blood, and the following day she noticed blood in her motions.

Ordered lemonade, brandy three ounces, and a diet of beef-tea, milk, potatoes, lemons, and oranges.

April 5.—She has already begun to improve. The spots have entirely disappeared from the inside of the lips. She was now ordered a slice of meat and greens in addition to her former diet.

8th.—Very few spots are now left. The urine is only smoky, and the expectoration is nearly free from blood, but is still fetid.

15th.—She is still very weak. The expectoration is brownish spots quite gone.

17th.—Yesterday some more spots came out on her limbs and body, most of them about the size of a pin's head. Her gums are again tender, spongy, and bleed. The expectoration contains blood, but the urine and motions are free from it.

From this last date up to May 12, the spots kept coming out and fading again in small numbers, and the colour and fetor of the expectoration remained much the same. Dr. Johnson considered that there was a cavity somewhere in one of the lungs, and that the gases evolved from it poisoned the circulation, and kept up the purpuric state of system; but no physical signs of such a cavity could be detected at any time, though the chest was repeatedly examined with great care.

On May 12, a draught, containing a grain of quinine and fifteen minims of sulphuric acid, was ordered to be taken three times a-day, and a solution of chlorine for a common drink. On May 31, two grains of sulphate of zinc were added to each dose; and on June 3, as no material improvement had taken place, she was ordered to inhale the vapour of creosote, the creosote floating in a capsule on warm water. From this time she steadily improved, and was discharged on June 26, still having a few spots on the body, and expectorating a little blood.

After leaving the Hospital, she lived very badly, and, becoming worse, she applied on July 14 at the Hospital for re-admission, her state then being very similar to what it was when she was first admitted, except that the urine and motions did not contain any blood. She was ordered quinine and acid mixture, creosote inhalation, chlorine drink, and mixed diet.

On July 22, she was improving, and on August 20 was well enough to be discharged, though the spots had not quite disappeared.

After her discharge she remained in much the same condition till September 23, when fresh spots came out, and some blood appeared in the expectoration. She also had slight bleeding from the nose, and the urine and motions contained blood. On the morning of October 3 she had a bad attack of epistaxis, and fainted several times. She came to the Hospital, and was admitted on October 6. She was then much blanched, and her skin was covered with dark purple spots, chiefly on the left side of the face and body. She was still bleeding from the posterior nares, expectorating fetid matter, and now and then vomiting some blood. She was ordered quinine and acid mixture, mixed diet, and brandy ʒjv.

On October 7, the bleeding from the nostrils ceased; but the urine and expectoration still contained blood. On the 8th, the blood had disappeared from the urine, and the expectoration was less; but she was still very weak and faint. Pulse 118. Ordered fifteen drops of the tincture of the muriate of iron to be added to each dose of the mixture.

On October 10, she was very faint and weak, and evidently sinking. She died at 5 p.m.

Autopsy, Twenty-two Hours after Death.—Lungs.—The right lung was adherent at its base to the diaphragm. In the middle of the lower lobe, near the diaphragmatic surface, there was a cavity, the size of an orange, containing fetid pus. The left lung was healthy. *Kidneys.*—The left was dilated into a membranous bag, the result of constriction of the ureter, which had impeded the escape of the urine. The right kidney was large, but healthy. *Heart* healthy. *Liver* rather fat. *Spleen* pale and soft. *Left ovary* had in it a cyst, the size of an orange, which was filled with hair and fat.

CHARING-CROSS HOSPITAL.

CASE OF SEVERE AUTUMNAL CHOLERA—CLINICAL REMARKS.

(Under the care of Dr. WILLSHIRE.)

[Reported by Mr. THOMAS LANGSTON, Clinical Clerk.]

J. C., a foreigner, 36 years of age, was admitted into the Hospital early upon the morning of October 14, with the following symptoms:—Profuse vomiting and purging, accompanied by great pain in the abdomen. The whole cutaneous surface was cold and clammy, and of a dusky hue. The respiration was laboured; the voice husky. Severe cramps affected all the extremities, and the pulse was scarcely perceptible at the wrist. The eyes were sunken; the finger-nails blue; the countenance was very anxious; the tongue coated and blue; the evacuations were void of smell, and the urinary secretion was suppressed. The intellect was quite clear. The patient seemed as though fast passing into fatal collapse. Brandy and other stimulants were administered, and warmth applied to the feet. When seen by Dr. Willshire, at half-past one, the vomiting, cramps, small pulse, husky voice, and general collapse still continued, but the purging had ceased.

He was ordered additional brandy, with ice to be sucked; and the following pills and draught were directed to be taken every four hours:—

℞ Opii gr. ji; camphoræ gr. jii., m. fiat pilulæ.

℞ Sp. ammoniæ arom. ʒj; inf. gentianæ comp. ʒj, m. fiat haustus.

Towards evening the patient became easier, the vomiting had somewhat lessened, and the purging had not returned. The treatment was continued.

15th.—Passed a rather restless night; bowels moved once; vomiting continues, but less frequently. Has passed urine. He complains much of thirst. He thinks he rejects the pill and draught, but that the brandy is retained. It is probable, however, that the pills are not rejected, as the cramps are much diminished in intensity.

An effervescing draught, containing twenty drops of the tincture of opium, was ordered instead of the pill and draught. The ice and brandy were continued, and farinaceous diet directed to be given.

16th.—Much better; complains chiefly of general weakness and palpitation of the heart. He says his heart is diseased. He was ordered to continue the same treatment.

30th.—The patient has progressed very favourably up to the present time. He still complains of debility. The heart does not appear to be organically diseased. The trunk and lower extremities are marked by the remains of recent ecthymatous and impetigonous pustules. There is also a superficial ulcer

near the instep of the left foot. He has been taking for the last few days the potassio-tartrate of iron.

Since his recovery he has stated that he has received a Medical education in France, has been greatly reduced in circumstances, and has been subsisting upon very indifferent food in one of the poorest localities of the metropolis. He still thinks his heart is diseased, though he has been assured that the palpitations are caused by anxiety and emotional excitement. He denies that the scars of eethyma and impetigo have a syphilitic origin.

In some clinical remarks upon this case, Dr. Willshire called the attention of the students to the very close similarity which existed between it and moderately severe cases of the so-called malignant or Asiatic cholera. Had this case occurred during an epidemic of the latter, it would infallibly have been considered as an example of the disease. He had been Physician at the Surrey Dispensary during one of the epidemics, and thus had seen and treated cases of this disease. He did not know of any difference between bad cases of English autumnal cholera, and certain forms of the Indian malady. He considered them, at the bottom, one and the same disease; the difference which appeared in the epidemic and severe varieties depended upon what, in Medicine, must be eonsidered as secondary causes, often temporary and local in eharacter. The whole clinical expression (if he might so call it) of both maladies, was not always the same; but the essential features were always present, and eould readily be distinguished in the complexity which might happen.

As to what power the treatment really had in bringing about, or helping recovery in the case before them, they must judge for themselves. Of this he was himself pretty confident, that, if the patient had not been removed to better air, placed in a warm bed, and if brandy and other stimulants had not been given to him, he would not have been alive and well at the present moment; but as to the benefit derived from the opium, the camphor, the ammonia, the ice, etc., he would speak much less confidently.

ST. THOMAS'S HOSPITAL.

CLINICAL REMARKS ON THE DISTINCTION OF TYPHUS AND TYPHOID—FREQUENCY OF DIARRHŒA IN THE FORMER, WITHOUT INTESTINAL DISEASE.

(Cases under the care of Dr. PEACOCK.)

Dr. Peacock, at his visit to St. Thomas's Hospital, on the 4th, remarked upon two cases then under his care in the wards as well illustrating the distinctions between typhus and typhoid, and as showing the necessity of basing the diagnosis of those forms of fever, not on the presence or absence of certain symptoms—however important such symptoms may generally be—but upon the mode of accession, progress, and decline of the fever, and the general features of the cases.

In one of these a middle-aged female was admitted, after a few days' illness, with symptoms of fever, much prostration of strength, profuse diarrhœa, and without marked cerebral disturbance. She passed favourably through the attack, the diarrhœa ceased, and in about twenty-one days she was convalescent. Judging by the general features, there could be no doubt that the case was one of typhus, and this conclusion was confirmed by the appearance and course of the eruption on the skin; yet, had reliance been placed on the absence of cerebral disturbance and the existence of profuse diarrhœa, the case might have been pronounced one of typhoid.

In the other case, a young man was admitted, after an obscure illness of three weeks' duration, with symptoms of marked cerebral disturbance, active delirium, followed by comatose tendency, and a dry, brown tongue, and the bowels acting regularly once daily. There was no diarrhœa while in the Hospital, though there had been something of the kind before his admission, though, whether it was due to the action of medicine or not, was not ascertained. The cerebral symptoms subsided, and the patient is now quite convalescent. In this instance it was clear that the case, if not simple subacute meningitis, was one of typhoid; and this view was substantiated by the appearance of a few spots on the abdomen, thorax, and back, which assumed the usual appearance, and followed the eourse, of a typhoid rash. In this instance, if the diagnosis had been based upon the existence of marked cerebral symptoms and the absence of diarrhœa, the case would have been pronounced typhoid.

Dr. Peacock also remarked upon the frequent occurrence of diarrhœa in the typhus which has been epidemic in London during the last winter and spring, and which is now again becoming very prevalent, especially in St. George's-in-the-East and Southwark. In some cases the diarrhœa might be excited by the plan so often followed of giving active purgatives in the early stages of fever; but such was certainly not always the case. He had seen many instances in which no aperient medicine at all had been given, and yet the patients at the height of the fever had frequent, relaxed motions, and a very tympanitic state of the abdomen. The diarrhœa, however, seemed to be due, not to disease of the intestines, but to the prostration of strength, and general influence of the fever-poison. It usually subsided without any special remedial means having been had recourse to, under the use of stimulants and support, with the gradual amelioration of the febrile symptoms and recovery of power. In two very marked cases of this kind in which death had occurred, the intestinal mucous membrane was found free from any appearances of disease.

HOSPITAL NOTES.

NEW OPERATION FOR THE REMOVAL OF A LARGE MASS OF POLYPI FROM THE NOSE.

On Saturday, October 18, Mr. Lawrence performed a novel operation for the removal of polypi of the nose. The patient, a man 22 years of age, first noticed occlusion of the nostrils rather more than two years ago. Gradually the swelling had increased, so that, when admitted into the Hospital, there was great deformity from elevation and expansion of the nasal bones. The appearance was somewhat like that in Mr. Noble's case, related in a recent number of this Journal, though the deformity was not nearly so great. Many attempts had been made to draw out the polypi through the nostrils, but with no relief. Mr. Lawrence was able, by the forceps, to remove a portion, but there was no real benefit obtained. The man would not submit to a repetition of the ordinary operation, and was anxious that something radical should be done, so that the whole mass might be removed. Both nostrils were quite occluded. They were simple mucous polypi, extending high up in the nose, and also a long way towards the pharynx. They could not, however, be touched by the fingers introduced by the mouth. Mr. Lawrence, after the operation, stated that the method he had adopted was, so far as he knew, quite new. He first divided the integuments on each side of the nose, beginning at a point just internal to the position of the lachrymal sac, and carried the incision down to the junction of the ala with the lip. Next, he completed this incision by eutting through the nasal bones and nasal process of the superior maxillary with bone nippers. Having divided the septum, he turned up the nose, and fairly exposed the great mass of the polypi.

They were removed by the forceps, polyp by polyp, considerable force being required to extract them. The mucous membrane lining the cavity was beset by minute polypi, and, therefore, the operator dissected it off in several places. The nose was replaced, and fastened in its position by sutures. The patient, after the operation, could easily breathe through the nose.

When we last heard of the patient, a few days ago, the wound was healed, and the nostrils were clear.

MASTURBATION IN EPILEPSY.

A patient, a girl, aged 11, was admitted, under the eare of Dr. Ramskill, into the Hospital for the Epileptic and Paralysed, on August 29, for epilepsy of four years' duration. For the first fortnight she had, at least, twenty fits a-day; very rarely any in sleep. She was convulsed, was quite insensible, and the fits lasted three or four minutes. The nurse suspected masturbation; and Dr. Ramskill, on examination, found what he believed to be evidence of this in irritation about the genitals. He directed that the patient should sleep with large gloves on, contrived for the purpose. Since, for four weeks, she has never had a fit, except on one day, when she had four. This, however, seems to favour the idea that the fits were caused by masturbation, as the night before the

nurse had forgotten to put on the gloves. She is improved, too, very much in appearance; looks more intelligent, and is more alert and vivacious.

It is very difficult to obtain any satisfactory evidence of this vice. Patients often confess that they have practised it long previous, but rarely own that they have not given up the habit.

Removal of the clitoris has been performed many times by Mr. Baker Brown, in cases of epilepsy, in which the fits were induced by masturbation. In reference to this operation, Dr. Brown-Séquard says, that it may now and then be useful to remove the clitoris when an aura starts from it, just as it might to remove a toe or a finger. He does not, however, as has been asserted, approve of the operation in order to prevent masturbation.

In the Hospital for Sick Children, Mr. Holmes has recently admitted a case of epilepsy in which fits are supposed to be induced by this habit. The patient is a boy, about 12 years of age. He had several fits every day. Mr. Holmes intended to remove the prepuce. During the boy's stay in the Hospital, however, he has much improved, and this is very likely due in a great measure to mechanical restraints. The operation has, therefore, been put off.

Dr. Copland, in his "Dictionary of Practical Medicine," strongly upholds the Jewish practice of circumcision, as one tending greatly to prevent bad habits of the kind under consideration. He writes:—"The neglect of circumcision in Christian countries is certainly no mean physical cause of the prevalence of this vice, and of many of the consequences which follow. The institution of this rite for the descendants of Abraham, and the faithful observance of it to the present day, not only by them, but also by the followers of Mahomet, have tended, amidst numerous countervailing influences and persecutions, to perpetuate an enduring and healthy race; the beneficial result of circumcision being experienced, not only by the individual himself, but also by his offspring, and even indirectly by the female sex, as may be inferred from various physiological considerations."

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Medical Times and Gazette.

SATURDAY, NOVEMBER 8.

ARCHDEACON DENISON ON THE MEDICAL PROFESSION.

Everybody has heard of the "brave" Archdeacon Denison, a man who has gained that title because he combines the most enthusiastic unconquerable devotion to his own principles and party, with the greatest possible frank outspoken generosity to his opponents. The Archdeacon edits a new monthly review, the *Church and State*, and in his last number has an article on "Medical Lecturers and Theological Students," which certainly deserves notice at our hands. We never can be indifferent to what is said or thought of us as a body; so let us see what the brave Archdeacon—or one who writes under his auspices—says of us, wel knowing that he is able to guide the opinions of a very large body of English clergymen.

He begins, as a man might have begun twenty years ago, by referring to the alleged "dangers, moral, social and religious," to which the Medical student was exposed, and to the alleged ill-consequences of that kind of career of which Mr. Bob Sawyer's mythical history is supposed to be an example; and he eulogises the collegiate system, with its "moral and social advantages." We will merely observe upon this, that though there always are blackguards in every calling, yet it may be averred, that neither the present generation of Medical Practitioners, nor their fathers during their student life, ever, as a body, answered to the Bob Sawyer model any more than country clergymen are like Parson Trulliber; and that, although we now greatly desire a collegiate system in certain cases, yet that the "shelter" of a private family is infinitely to be preferred. We want for our sons and successors none of the slipshod, self-indulgent habits, the beer-drinking, and irreligion, to be found in some Universities that we will not name.

But when we get over this somewhat disparaging exordium, we find that the remainder of the writer's remarks consist of the expression of gratified surprise at the "improvement" of the Medical Profession, and at the excellence of the teaching provided for Medical students in the introductory lectures delivered at the various Medical Schools on the 1st of October, and that he holds up this teaching for the imitation of students in theology! Actually, he finds out that we are neither immoral, nor infidel, nor tradesmen!

"We were truly gratified," he says, "to find so many men belonging to this influential class, and distinguished by such high literary and scientific attainments as these lectures evidence, not only eminent in their own proper profession, but promulgating before the rising generation such admirable sentiments as may be culled out of these addresses. It brightens our uncertain gaze into the dark future of our race. It would be difficult, indeed, we believe, to find such a combination of high and ennobling excellences in a similar number of addresses from an equal number of lecturers in any other profession. It is impossible not to congratulate the students who had the privilege of listening to such instructions, and the golden opportunity of imbibing their living spirit. And we cannot but believe that when, in onward years, they shall be scattered over the face of the earth in pursuit of their avocations, moulded by such wise instructions, not a few of them will carry blessings to their fellow-creatures even more to be prized than those of their immediate profession."

He then goes on to show how the *theological* student might profit by these addresses; for the theological, like the Medical, has to learn how, "in the striking language of Dr. William Cholmeley, 'to wield and apply all the means and appliances which Infinite Mercy has placed at the command of man, to remedy all the pains and woes he has called on himself from Infinite Justice.'"

"We were most of all struck, however," continues our now friendly critic, "with the almost enthusiastic eulogies which these gentlemen lavish on their Profession. It is not known to us if the members of our own, or of any other profession, excepting in rare cases, thus exalt their calling."

He then quotes the admirable words of Dr. Priestley, in which he holds up our Profession as worthy of "reverence," not because it enables a man to grow rich, but to do good,(a) and thus continues:—

"Golden words indeed! Would that their very spirit could be imbibed by every theological student who aspires to do well the great task he has undertaken to prepare himself for!"

But, proceeds our theological critic, whence arises this "reverence"—how is it to be created?

"One of the best means of producing and fostering a 'reverence' for one's profession appears to be, the consciousness that we have self-denyingly worked to fit ourselves for the faithful discharge of its duties."

The writer then goes on to eulogise the four years' course of actual Professional study which the Medical student must

(a) See *Medical Times and Gazette*, October 4, 1862.

undergo, and to bewail the fact, that the Theological student has nothing like it:

"The divinity-student has nothing, worth speaking of, comparable to the admirable discipline of those four years of a Medical student's life, for supplementing the imperfect training of an open University career. The case may be presented thus:—A youth enters one of the Universities; remains there, but too often little better than an idler, for three years; passes an examination which, useful as it is, serves equally well for the lawyer, the barrister, the soldier, or the merchant; afterwards spends a few months in two necessarily elementary courses of theology, one required by his University, the other by the ordaining bishop—and then rushes into his sacred calling with the very minimum of preparation for the efficient discharge of its duties. As yet he can have no solid theological knowledge."

Here is an answer to those who fret at our alleged want of "social position," and the advantages of "University education" for Medical men. The simple fact is, as was well pointed out in our late article on "Education at Oxford," that this is a thing unattainable for the mass. But since we cannot have both, let us console ourselves with the fact, that we have better "social position," though possessing Professional knowledge *minus* University education, than if, like the clergy, we had University edueation *minus* Professional knowledge.

The critic then goes on to quote from the admirable address of Dr. Sieveking; he notices the "strains of true eloquence" which fell from Professor Wilson Fox; and concludes with the peroration which concluded Mr. Hutchinson's introductory lecture. All these addresses are in our readers' hands, so we will not fill our space by repeating the quotations which elicit such warm and deserved commendations.

We are heartily glad that these introductory lectures have fallen under the Archdeacon's notice, and that they have elicited such cordial praise. Half the English clergy will feel increased respect for us in consequence.

As fellow-labourers in the great work which Dr. Cholmeley defines, we of the Medical Profession are most glad to have the best possible understanding with the clergy; and we will venture to say that, if the younger clergy take the Archdeacon's advice, and thoroughly work out the knowledge peculiar to their own Profession, it will conduee immensely to this end.

The constant source of irritation amongst Medical men is, that the clergy affect a higher "social position," and that, on the ground of this, they remorselessly interfere with the work of the Medical man, and neglect their own. The clergy are accused of being frequently the most unfriendly critics of Medical practice, and the most unscrupulous promoters of any kind of quackery. Homœopathy, Mesmerism, table-turning, and all similar delusions, are and were mainly upheld by the clergy.

Now, the more deeply learned a man is in his own subject, the more he is willing to believe that there are depths in other men's callings which can only be fathomed by prolonged and exclusive study. There may be divinity-quacks amongst Physicians, but they are only laughed at by the rest of us. If the elergy were more exclusively and professionally theologians, they would, out of the very breadth and depth of their proper studies, learn to respect physic more.

But we will further tell the clergy that we, without University education for the mass of us—without the *prestige* which must be inseparable from the priesthood—without the saeramental grace of the Succession, or Orders—without endowment, or the privilege of being one of the Estates of the Realm, do yet live and flourish, and hold our place in public estimation, solely because the public believe that we laboriously study and understand our business, and do (making allowanees for human frailty) what we profess to do, and that we keep their secrets.

But we may tell the elergy that, if they fail, it is because they do not do their *professional* work. They are kind enough, give away money, and tea and sugar (they have even got the *soubriquet*, amongst the poor, of *relieving officers*), and they send a broken-down "Scripture reader" to read to the sick. But they have not always that intimate knowledge of the relations of the moral and physical world which enables them to cope with the difficulties of the present day. Neither do they always possess that profound personal experience of heart and character which is requisite for confidential intercourse with the sick, and which alone will enable them to be efficient coadjutors to the Physician in those instances—numerous enough in artificial life like ours—where a "mind diseased" bars the recovery of bodily health.

ST. BARTHOLOMEW'S HOSPITAL AND SCHOOL.

(*From a Correspondent.*)

"Old St. Bart's," as the children of St. Bartholomew's are wont, with more affection than reverence, to term their *alma mater*—"old St. Bart's" is the oldest of the London Hospitals, having been founded about the year 1123. In 1102, Rayhere, who is sometimes called the "minstrel of Henry the First," but whom Stow mentions as "an ingenious gentleman belonging to Henry the First," founded and built the Priory of St. Bartholomew, of which he was the first Prior, and its church, which latter still exists as the Parish Church of St. Bartholomew the Great, and contains the canopied tomb and effigy of its founder. Some twenty years later, about 1123, Rayhere, in conjunction with Alfune, the builder of St. Giles's, Cripplegate, founded the Hospital, not as a mere almshouse or hospice, but also for the relief of the sick poor: "Ad omnes pauperes infirmos ad idem Hospitale confluentes quousque de infirmitatibus suis convaluerint, ae mulieres prægnantes quousque de puerperio surrexerint, necnon ad omnes pueros de eisdem mulieribus genitos, usque septennium, si dictæ mulieres intra Hospitale prædictum decesserint." Alfune was the first Hospitaller, and "used daily to beg for the poor committed to his charge at the adjoining market and shambles of Smithfield."

Stow states that the Hospital was repaired and enlarged in 1473 by the executors of Richard Whittington—the Whittington, Lord Mayor of London. When that most disinterested of Protestants, the pure-minded Henry the Eighth, "secularised" the monasteries, the Priory and Hospital beeame royal property; but in 1547, on the petition of Sir Richard Gresham, Lord Mayor of London, and father of Sir Thomas Gresham, the King refounded the Hospital, and endowed it with the greater portion of its former revenues; being "moved thereto with great pity for and towards the relief and succour and help of the poor, aged, sick, low, and impotent people . . . lying and going about begging in the common streets of the City of London and the suburbs of the same," and "infeeted with divers great and horrible sicknesses and diseases."

His Majesty made a bargain with the corporation of the City, that he would endow the Hospital with 500 marks yearly, if the city would provide an equal sum. The houses assigned by the Royal grant were, however, in so decayed a condition, besides being burdened with stipends for the vicars of St. Bartholomew's and Christ's Hospitals, that they added but little at that time to the income available for Hospital purposes, and the charity had to depend greatly on private benefactors. The income of the Hospital in 1552, is stated at 666*l.* from the Royal and the City endowments; while the expenditure, "including the payment to the ministers of Christ Church and St. Bartholomew's, and the diet of 100 poor at 2d. a day each," amounted to 856*l.* In this year, Edward the Sixth granted a charter of incorporation to the Hospital, and it became one of the "five Royal Hospitals of the City of London, under the pious care of the Right Honourable the Lord Mayor, Aldermen, and Governors

thereof;" the other four being Christ's Hospital, St. Thomas's, Bethlem, and Bridewell. "In 1557, they were united for the purposes of administration, and their affairs were managed by a general board, till 1782, when it was provided that they should be under the eare of the corporation, but each under distinct internal government, with the exception of Bethlem and Bridewell, which were retained under one and the same management." At this time the Hospital contained 100 beds, and its Medical staff consisted of one Physician and three Surgeons; the latter attending daily upon all the patients, and consulting with the Physician in eases requiring Medieal adviee; and the immediate superintendence of it was committed to Thomas Vicary, "Serjeant Chirurgeon" to Henry VIII., Edward VI., Mary, and Elizabeth, and author of "The Englishman's Treasure, with the true Anatomie of Man's Body," the first work on anatomy published in the English language.

In 1609, the immortal Harvey was appointed Physician to the Hospital, and held the office for thirty-four years. The Hospital records show that, on February 25, he "made sute for the rev'con of the office of the Physicon of this howse when the same shalbe nexte voyd, and brought the Kinge's Ma^{tie} his l'res directed to the Gov'nors of this howse in his behalfe, and showed forthe a Testimony of his sufficiency for the same place under the hande of M^{r} Doct^{r} Adkyson, presydent of the Colledge of physitions and div'se others, doctors of the auncientest of the said Colledge. It is graunted at the eontemplecon of his Ma^{ties} l'res that the said M^{r} Harvey shall have the said office nexte after the deeease or other dep'ture of M^{r} Doctor Wilkenson, whoe nowe holdeth the same, wth the y'ly ffee and dewtyes thereunto belonginge, Soe that then he be not founde to be otherwyse imployed, that may lett and hynder the chardge of the same Offiee, which belongeth thereunto;" and, on October 13 of the same year, "M^{r} Willyam Harvey, Doct^{r} of Phisick, is admytted to the offyce of the Physicon of this Hosp^{ll}, which M^{r} Dr. Wilkenson deceased late helde aceording to a form^{r} graunt made, and the chardge of the sayd Office hath bene redd unto him." It was the custom, till about 1660, to grant in reversion all offiees of emolument in the Hospital; and the person so appointed to succeed to an office was usually required to discharge its duties during the absenee of its possessor. Thus, Dr. Andrewes was granted, in 1631, "the rev'con next avoidance and place of phisicon after the death, resignaeon, or other dep'ture of Do^{r} Harvey;" and, in 1633, he was ordered to supply the plaee of the latter during "his attendance on the King's Ma ." Later in the same year we find the following record:—"For as much as the poore of this howse are increased to a greater number than form'ly have bene, to the greate eharge of this hospitall, and to the greater labour and more necessary attendance of a phisieon; And beinge much more alsoe than is eonceaved one phisicon may conveniently p'forme. . . . It hath bene thought fitt and soe ordered that there shalbe for this p'nte occasion two phisicons." Dr. Andrewes was aecordingly admitted "an imediat phisicon," and allotted the "same sallary or yerely ffee" as Harvey, viz., £33 6s. 8d.: the eourt, "for the longe s'rvice of the said Dr. Harvey to this hosp^{ll}, and in consideraeon that he is phisicon to his Ma^{tie}," granting him "leave and lib'ty to dispose of himselfe and tyme, and to visit the poore noe oftener than he in his diseretion shall thinck fitt."

At this time, Harvey presented to the Court "c'taine orders, or articles, by him thought fitt to be observed and putt in practise" in the management of the patients, which were accepted by the Governors, and agreed to by the Surgeons. One or two of these we will quote as very curiously illustrating the state of the Profession in Harvey's time:

"Rule 8.—That the Chirurgions in all difficult cases, or where inward phisick may be necessary, shall eonsult with the Do^{r}, at the tymes he sitteth once in the weeke, and there the M^{r} himselfe relate to the Do^{r} what he conceaveth of the eure and what he hath donc therein, and in a decent and orderly manner p'ceed by the Do^{r} dirreccons for the good of the poore and ereditt of the howse.

"10.—That no Chirurgion or his man practize by giveinge inward phisick to the poore, w'thout th' app'bacon of the Do^{r}.

"12.—That ev'ry Chirurgion shall shewe and declare unto the Do^{r} whensoev' he shall in the presence of the patient require him, what he findeth, and what he useth to ev'ry externall malady; that soe the Do beinge informed may better w^{h} judgem^{t} order his preseripts.

"16.—That the Apothecary keepe secrett and doe not disclose what the Do^{r} pr'scribeth nor the p'scripts he useth but to such as in the Do$^{r's}$ absence may supply his place, and that w^{h} the Do$^{r's}$ approbation."

The 12th rule is the only one to which, it is stated, the Surgeons protested; with what effeet is not on reeord; but, in all probability, the protest was quite unavailing, so domineering and all-powerful was the College of Physicians.

The Medical staff of the Hospital, in 1633, consisted of—Two Physicians; three Surgeons; a Surgeon for the stone; a "Guide, or Surgeon" to the Lock Hospital in Southwark; a "Guide, or Surgeon" to the Kingsland Spital; an Apothecary; a curer of scald heads; and up to that time there was also a bone-setter, or Surgeon for fractures and dislocations.

The eurer of scald heads seems to have generally been one of the fair sex, and to have made a very good thing of the office; for while the Surgeons received only £20 a-year eaeh, Frances Worth was paid in one year for "amending" scald heads as much as £125. The treasurer's accounts, however, eontain no item of this sort after 1696; but it is not stated whether the disease had ceased, or the Surgeons had undertaken the treatment of it, as they did the treatment of fractures and dislocations in 1628, and cutting for the stone in 1732. The Lock Hospitals in Southwark and Kingsland were for the reception of patients labouring under syphilis, and other diseases supposed to be infectious or incurable, and ceased to be so used in 1760, when wards were set apart for syphilitic patients in the new Hospital of St. Bartholomew's.

Under the judieious management of the treasurers and governors the Hospital has gradually and steadily grown in importance, till it has attained its present magnificent dimensions. In 1704, "the true report" states, that 2264 patients had been cured and discharged; 165 buried; and 373 remained under charge. In 1754, 6703 were eured and diseharged; 280 buried; and 649 remained under charge. There were then three Physicians, three Surgeons, and three Assistant-Surgeons. Now, there are four Physicians, and four Assistant-Physicians, four Surgeons, and four Assistant-Surgeons, a Physician Aecoucheur, an Apotheeary, and four House-Surgeons. There are 630 beds; and in 1861 relief was afforded to 5600 in-patients, 19,000 out-patients, and 81,000 casualties; and about 1000 women were attended in their confinements at their own homes. The Hospital and School cover a very large space of ground, extending all along the eastern side of Smithfield, from the eorner of Giltspur-street to Duke-street. The main entrance from Smithfield is through a large arched gateway, built in 1702, and adorned by a statue of Henry VIII., in the Holbein-straddling attitude, and by two figures of lameness and sickness. The great quadrangle was built in 1730-33 by James Gibbs, architect of the ehurch of St. Martin's-in-the-Fields; the cost was about £40,000, collected by private subseription. The western side contains a very handsome hall, ninety feet long. Hogarth was made a life-governor for gratuitously painting the fine stairease leading to the hall. The subjects of the paintings are—the "Good Samaritan," and the "Pool of Bethesda." The court room and hall eontain many portraits of Hospital worthies—lay and Professional; the most noteworthy of which are Henry VIII., attributed to Holbein; Radcliffe, by his quondam friend and later enemy, Kneller; Pereival Pott, by Sir J. Reynolds, and Abernethy, by Sir T. Lawrence.

The latest additions to the Hospital part of the establishment were made in 1842, when a new Surgery and casualty room, two large wards, and a new operating theatre, were built on the side of the quadrangle next Duke-street.

The present School of St. Bartholomew's may, perhaps, be rightly said to have been founded by Abernethy; but the records of Medical teaching at the Hospital date very much further back; for so early as in 1662 it is on record that students were in the habit of attending the Medical and Surgical Practice; and about 1667 a Library was founded "for the use of the Governors and young University scholars;" and from that time the School has always been generously fostered and encouraged by the Governors of the Charity, among whom, it may be mentioned, were, at the beginning of the eighteenth century, Drs. Radcliffe and Mead. In 1724 a new building was provided for a museum of Anatomical and Chirurgical Preparations, which was placed under the care of John Freke, then Assistant-Surgeon to the Hospital, and previously Serjeant-Surgeon to Queen Anne; and in 1734, leave was given for any of the Surgeons or Assistant-Surgeons "to read lectures on Anatomy in the dissecting-room of the Hospital;" a permission first acted on by Mr. Edward Nourse, who for many years gave courses, of twenty-three lectures each, on Anatomy. He was succeeded, in 1765, by his pupil and prosector, Percival Pott, who for several years lectured on Surgery; and about the same time, Dr. William Pitcairn, and later, Dr. David Pitcairn, both of them Physicians to the Hospital, were in the habit of delivering lectures on Medicine. In 1787, Abernethy was elected Assistant-Surgeon, and, in conjunction with the Pitcairns, established the principal lectures of the present day; Abernethy himself lecturing on Anatomy, Physiology, and Surgery. A theatre was erected for him by the Governors in 1791; but the fame of his eloquence, lucidity, and power as a teacher, attracted so large a number of students, that it was necessary in 1822 to build a new and larger anatomical theatre. For nearly forty years he continued his labours as a teacher, ceasing only in 1829, when he was succeeded by as eloquent a lecturer as himself, Mr. Lawrence, who still holds the chair of Surgery. In the same year, the chair of Anatomy and Physiology was entrusted to the late Mr. Stanley, who, though not a brilliant lecturer, was an eminently earnest, accurate, and painstaking teacher, and to the students an invaluable example of unflinching, steady, persevering labour.

During the early part of the present century the labour of lecturing rested on the shoulders of only a few men. From an advertisement of the School in 1824, we learn that Mr. Abernethy lectured on the Principles and Practice of Surgery, and on Anatomy and Physiology; Dr. Hue on the Principles and Practice of Medicine, and on Chemistry and Materia Medica; Drs. Gooch and Conquest on Midwifery; while Mr. Stanley took Practical Anatomy and the superintendence of dissections. Later, Dr. Hue lectured also on Botany; and it was not till several years later that pluralists of labour ceased from the School, and it was found to be at least one man's work to teach one of these sciences. As the School has grown in importance, as science has progressed, and the curriculum of Medical education has been extended, additional lectureships have been established on subjects auxiliary to Medicine, and the machinery for teaching has been continually developed and improved. In 1835 and 1854 the Anatomical Museum was considerably enlarged, and new Medical and chemical theatres, and museums of Materia Medica and Botany, were built.

In 1845, scholarships were founded, "with the design, not only of encouraging learning, but of assisting students to prolong their attendance beyond the usual period on the Medical and Surgical practice of the Hospital." Seven scholarships, varying in value from £50 to £20 a year, are now awarded annually. Besides these, foundation prizes have been, from time to time, endowed for the encouragement of the practical study of Medicine, Surgery, and Anatomy, and to promote an interest in subjects illustrating the connexion between religion and natural science.

The collegiate establishment in connection with the School was founded by the Governors in 1843, and has been entirely successful. Whatever theoretical objections may have prevented the system from being tried elsewhere, they are practically confuted here. The students of St. Bartholomew's fully appreciate the comfort and advantages of the collegiate residence, the benefits of its discipline, and the value of the advice and aid in their studies of the resident Warden. The establishment contains now, we believe, about forty sets of rooms, and the number of applicants for admission is always greater than its capacity.

As Harvey may be accounted the great light of the Hospital, so may John Abernethy be held as the greatest light of the school. As a lecturer he was eminently popular and successful; and though the vulgar idea of him is expressed in the anagram of "Johnny the Bear," which may be formed from his name, all who really knew him knew that, though hasty and impulsive, keenly alive to the value of time, and rather intolerant of dullness or loquacity, he was a strong, warm-heated man, of generous sympathies, and large benevolence. But we have neither space nor inclination, had we the necessary knowledge and power, to attempt any sketches of the eminent men who have been lecturers in the School. Some, indeed, though no longer systematic lecturers, are still, happily, on the Hospital staff, and are clinical teachers,—as Dr. Burrows, and Mr. Paget; and some who have entirely retired from the Hospital, as Dr. Latham, are honoured chiefs of the Profession: while others, who have ceased from all their earthly labours, as Dr. Baly—snatched from us "too soon for friendship, not for fame"—and Mr. Stanley, have been but lately noticed in this Journal. We will speak rather of the success and reputation of the School; "si testimonium requiris" look round on the Profession and its men of mark, metropolitan and provincial: in London there is scarcely a Hospital, except Guy's and the University, which does not count St. Bartholomew's men on its staff; and in the provinces the list of Hospital Physicians and Surgeons who are "St. Bart's" men would be too long to enumerate; they are found at the Oxford, Cambridge, Exeter, Canterbury, Norwich, Coventry, and many other Hospitals. Among the honoured names of the day, Watson, Owen, Goodeve, Klein Grant, R. Gordon Latham, Sir William Rae, and others, "quos enumerare longum est," are on the rolls of St. Bartholomew's. At home and abroad her sons form a band of comrades, proud of their *alma mater*, and jealous of her honour and reputation.

THE WEEK.

THE MEETING OF THE GENERAL COUNCIL.

We congratulate our readers on the fact, that the ground is at last cleared for the advent of the new Pharmacopœia, and we take some little credit to ourselves for having been the first to propose the alteration in the system of weights which has commanded general assent. By retaining the grain weight at present in use, by substituting the avoirdupois pound and ounce for the corresponding troy weights, and discarding the unnecessary scruple and drachm, an improvement has been made which will tell equally on the interests of trade and science. The importation of the proposed new grain would have been the signal for general confusion. As it is, the only difference introduced in the mode of prescribing is, that the metrical formulæ are made identical with those used in chemical and other scientific operations. All the ambiguities and confusion arising from the employment of two sets of weights in the drug trade are thus abolished. By adopting this measure, and negativing the proposed innovation, supported as it was by the influence of the Pharma-

copœia Sub-Committees, the General Council have shown themselves worthy guardians of the interests of the Profession.

WILL-O'-THE-WISP.

Our political chiefs having completed their triumphant progresses through the country, and delivered their souls of many speeches, the *Times*, obliged to look elsewhere for matter to entertain its readers at this dull season, has seen fit to open its columns to an attack on our old friend, the Will-o'-the-Wisp. The discussion is opened by a gentleman, who, in all the dignity of leaded type, denounces the poor *ignes fatui* as rank impostors, and pathetically appeals to the Editor to annihilate their pretensions, and send them to the limbo of "the frog in the coal," and the numerous other fallacies, slain by that doughty warrior, the Jupiter Tonans of the press. So far, however, the Will-o'-the-Wisp has decidedly the best of it; for, while nobody has backed up his antagonist, numerous friends have appeared to vouch for his existence. Dr. Phipson, Mr. Jesse, Sir Roundell Palmer, and others, testify that they have not only seen these wandering earth-born flames, but have actually pursued them, and even succeeded, by "lighting sticks, etc., from them," in proving them to possess the ordinary properties of incandescent bodies; and they modestly express a hope that these facts will be accepted as evidences, that the observers did not mistake imps of the bottle, dancing before their eyes, for wandering terrestrial lights. Dr. Phipson writes:—

"Now, as to the *cause* of this vagabond,—from all the evidence I have been able to collect, I am inclined to believe that more than one natural phenomenon has been included under the names of Will-o'-the-Wisp, Jack-o'-Lantern, elf-candles, *ignis fatuus*, etc.; but, as regards our English Will-o'-the-Wisp, which flickers over boggy land, it is evidently nothing more than ignited marsh gas (carburetted hydrogen), the same gas which spontaneously inflames in coal mines, the specific gravity of which is about one-half that of air. Its faint flame is almost invisible in the daytime, but becomes gradually visible as night approaches. On account of its lightness, this gas burns with a very wild flame. I quote the following short paragraph from page 66 of my 'Phosphorescence':—

"'In the valley of Gorbitz, Mr. Blesson discovered a light emanating from marshy ground. Remaining for some days near the place, in order to study the phenomenon as closely as possible, he found it was owing to an ignited gas, the faint flame of which was invisible during the day, but became gradually visible in the evening. The gas appears to have been carburetted hydrogen, or marsh gas. As he approached it the flame receded; but he eventually succeeded in lighting a piece of paper by it.'

"There are many other cases of spontaneous emission of light, quite as wonderful as the Will-o'-the-Wisp, which frequently escape the observation of those who do not 'look with their brains;' and I am quite at a loss to imagine why your worthy correspondent should have fixed upon the 'Jack-o'-Lantern' as a vagabond and impostor, rather than on those mysterious lights observed by General Sabine, Beccaria, Rozier, Maffei, Dr. Kane, etc., to which I have lately called attention. Those who look into natural phenomena are often reminded of Humboldt's exclamation, 'So varied are the sources of terrestrial light!'"

FEMALE PHYSICIANS.

The University of St. Andrews has been thrown into a state of perplexity, by the application of a lady for permission to attend the Medical classes. More properly speaking, the authorities are perplexed to know how they shall turn her out; for, it appears, that she went to St. Andrews, some time ago, and announced her intention; she was favourably received by many of the Professors; she went, accordingly, at the beginning of November, applied to the Secretary for permission to matriculate, paid the fees, received the card, received and paid for tickets of admission to two Medical classes; and then—long after the eleventh hour—some of the governing body take alarm at the proposed innovation, repudiate the acts of their officers, as being done without authority, and desire to deprive the newly-matriculated student of the privileges which have just been conceded to her, and paid for.

We know, on the best authority, that the young lady referred to, Miss Garrett, is a person of good birth, excellent social position, and ample fortune. What her education has been is shown by the fact, that she is said to have acquitted herself at the late Examination in "Arts" (Latin and Mathematics), at Apothecaries' Hall, better than most of the young men present. She has devoted herself to Medicine, as a Profession, not from any necessity, but with the resolution to make the study and practice of Medicine the occupation of her life, and to obtain the Diploma of any Medical College or Corporation which, from the terms of its charter, can be compelled to admit her to examination, and to all the honours, titles, and privileges of the legally-qualified Practitioner.

We need scarcely say that, as a Profession, we do not fear the rivalry of women. It will be time enough for that when we find numbers of young women, possessed of the position, education, means, and resolution of Miss Garrett, knocking as pertinaciously as she does at our portals. The whole scheme of girls' education will not be altered in a hurry, nor will young women of family and fortune be found able to pay for, and willing to undergo the fag of, the four years' English Medical curriculum.

In America things are on a different footing. Female physicians are educated in colleges of their own—at Boston, for example—constituted by public authority, and partly supported by public funds. There are female professors of Anatomy, Midwifery, and other branches of the art, and the dissections and other studies are carried on by the young women apart. The curriculum is very short and inexpensive. It is evident, then, that a female Physician from America is not on a level with English Physicians.

Whether or no there is to be a recognised order of female Medical Practitioners here, with schools of their own, is a question which we need not discuss at present. We would throw no illiberal obstacles in the path of any enthusiastic student who desires to undergo the repulsive studies of Medicine, and to measure herself with us on equal terms. But it must be remembered that Medical Professors have a right to a little consideration. It is no more fair for a woman suddenly to demand to be present at lectures and dissections, which have been arranged exclusively for men, than it would be for a man to demand admission into any *sanctum* which had been reserved for women; such, for instance, as the anatomical classes or drawing from live models for female artists.

ANATOMY FROM THE LIVING SUBJECT.

Mr. Christopher Heath, himself a good anatomical teacher, has published in the *London Medical Review* some pungent remarks on the omissions in the present mode of teaching practical anatomy:—

"A man (he says) *practises* on the *living* body. In educating a Practitioner, therefore, it is natural to suppose that we should begin by placing before him the *living* body, that he may accustom his senses to appreciate a healthy living body before having to deal with one in a state of disease. Is this ever done?

"The only place in England that I know of where the living body is used to illustrate lectures on anatomy is the Royal Academy of Arts; and there, of course, attention is given to outward form, simply with the view of instructing the artist in correct drawing, and without any relation to physic. The universal practice of anatomical lecturers in Medical schools is, after a few introductory remarks, to go at once to the bones, and so on through the various tissues of the body *seriatim*; but nowhere is attention called to points which I cannot but think of great importance.

"Supposing a nude man placed before a class, with an articu-

lated skeleton by his side, the points of comparison between the two would be numerous and most interesting. The vertebral column would be shown to be a highly flexible and movable pillar deeply bedded in the soft tissues of the neck, but coming nearer to the surface and the Surgeon's finger in the remainder of its length, instead of being a stiff column of bone with an iron rod through the centre, or a series of twenty-four differently shaped pieces strung on a length of cord. A few moments would suffice for the sacrum, etc., and then might be shown experimentally—what some Practitioners fail to recognise, even in after years—the curves the spine must assume to counterbalance the varying position of the pelvis as it works upon the femurs.

"Taking next a front view of the model, the process of respiration would naturally be analysed, and the varying positions of the ribs and sternum would be indelibly impressed upon the student's mind; whilst the main characteristics of normal and forced respiration in the male might be contrasted with those of the female, and illustrated by diagrams, if not by a female model.

"The line of the clavicles, their curves in the two sexes, and their articulations, are matters of considerable interest to the Surgeon, and can only be fully appreciated by reference to the living body. No student, until he has himself observed them, can believe in the important and varied movements which take place in the sterno-clavicular joint, nor can he in any other way have the slightest idea of the play which the scapula enjoys upon the surface of the ribs, or the important part it performs in the movements of the arm.

"The shoulder-joint is fully as liable as any other to all forms of injury, and no joint in the body has more mistakes made about it. The reason of this, I believe to be, that a student never manipulates a shoulder except in the dissected condition, or on an articulated skeleton, and hence his ideas of the relations of the parts involved are of the vaguest. Many cases of dislocation are, no doubt, temporarily overlooked for want of this knowledge, but many more, I am convinced, are put down as 'sub-luxations,' or some other refinement, in which the bones are still in their natural position; but to the uneducated finger of the Surgeon the head of the humerus appears unusually prominent, or much nearer the coracoid process than it ought to be. Both the coracoid and acromion processes will well repay attentive study.

"To pass on to the elbow. To recognise the prominent internal condyle and its relation to the ulna, together with the position of the nerve, is a matter of no small moment, and equally important is the relation of the rounded external condyle and the head of the radius, which latter must be felt rotating under the finger. The lower ends of the bones of the fore-arm, and their relation to the wrist in its varied movements, might be readily pointed out, and in the same way similar points might be indicated in the lower extremity which it would be tedious to give in detail here.

"To turn now to a more Medical view of the model. Whose duty is it to demonstrate the healthy chest and abdomen of the model by percussion and auscultation? Certain I am that in some way or other the student should have the opportunity of auscultating *healthy* hearts and lungs, and percussing *healthy* abdomens to a much greater extent than he has at present. How is it possile for him to recognise morbid conditions of internal organs if he has never studied their healthy relations and signs?"

THE CHARGE OF PLAGIARISM.

We publish, in the "Notes and Queries" of this week, a reply, by Dr. Fowler, to the charges brought against him by Dr. Mayne, in a letter last week. We have abridged Dr. Fowler's letter considerably, as we did that of Dr. Mayne, cutting out of each such expressions as seemed calculated to give rise to annoyance, without settling the facts of the case. Now that Dr. Fowler's reply is published, the controversy must cease, so far as our columns are concerned. Such controversies only lay up materials for future regret to the writers, and, after a certain point, lose their interest for every one else. So far as our judgment goes, Dr. Fowler is acquitted both of plagiarism and of the very mean offence indicated in Dr. Mayne's last letter. On the other hand, the very learned and laborious author of the "Expository Lexicon" seems to have thought that to be a plagiarism which was an independent work. It is surely open to any man to write a dictionary; but no two men can write on the same subject without agreeing in many things. There is a stock of phrases, words, and arrangements which are common property. Handel, the most prolific composer whom the world ever saw, often repeats phrases from Corelli. So some things may be alike in any two modern books, without the slightest suspicion of plagiarism.

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

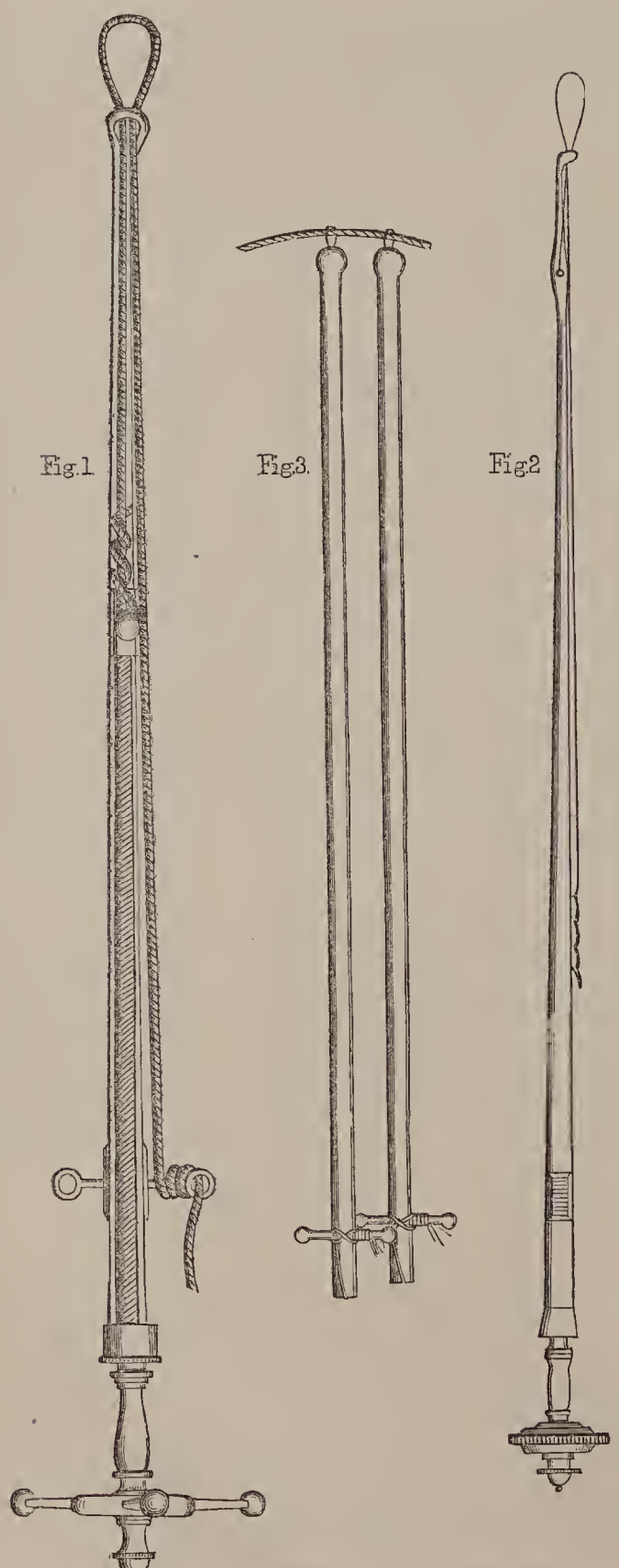
Messrs. Coles & Co. show the trusses which have been so long associated with their name: the spiral spring by which the pad exercises the proper amount of pressure is so well known, that any description of mine would be quite superfluous. They are good instruments, and those which he makes to be worn during bathing are of excellent manufacture. Mrs. Rein exhibits some abdominal belts, elastic stockings, etc., which are remarkably well made; I should hardly think, however, that such costly specimens as those contained in her case would be likely to find general favour. Messrs. Longdon and Co., of Derby, and Brown, of Runcorn, also show appliances of this kind, which are not surpassed by any in the Exhibition. Dr. Lewis exhibits his spirometer, which consists of a cylindrical glass vessel of considerable size, on the open end of which is securely fixed a metallic cover. This is perforated by three holes: one of these allows the vessel to be filled up to a given level with water, and is then perfectly closed by a cork; the second gives passage to a metallic tube, which descends to the bottom of the instrument, and terminates externally in a free extremity, which is bent at a sharp angle for the last inch or two of its length; and the third gives attachment to an elastic tube, which is furnished with an ivory mouth-piece. To employ the instrument, it is, first, to be filled up to a fixed point with water, and the hole by which it is done is to be securely corked; the apparatus is then carefully laid on its side on a wooden frame-work, and the patient expires through the elastic tube. The air which he thus causes to pass through it, acting on the surface of the water, forces the latter out through the metal tube, so that, when the glass vessel is again brought into the vertical position, the number of cubic inches of air expired can be read off by means of a scale which is engraved on the side of the glass. This contrivance is quite portable enough to be carried about in a brougham if necessary; and I am assured that it gives results quite as uniform as those obtained by Dr. Hutchinson's famous instrument.

Norman shows one or two very ingenious and practically useful inventions, among which I may mention an excellent wooden lift for a short leg, and a cheap boot, which can be attached to any sort of wooden leg. Gannon exhibits a very good rest for the foot and leg, which must be highly conducive to the comfort of gouty subjects. It possesses a universal joint, and it can be, therefore, fixed at any required angle. The abdominal belt which is shown by Mrs. Sykes is, perhaps, the best in the Exhibition. It is furnished with numerous straps and buckles, by means of which the pressure can be accurately regulated: and I do not think that, for practical value, it can be well surpassed. Indeed, Mrs. Sykes has long been known to be the best maker of articles of this description in London.

Mr. Rein's case is remarkable for its immense size, but I *do not* think its contents show any great originality of invention. One is tempted to ask one's self whether an enema is likely to be more successful, or even less distressing, if given by an elaborately-chased and plated pump, when one glances at the instruments of this kind which he exhibits. And the multitude of auricles and ear-cornets which are in his case present, as far as I can see, no novelty or elegance to recommend them. In Mr. Rein's case is also to be seen a large gilt chair, having at the end of each of its arms the carved head of some animal that it is difficult to particularise, with its mouth wide open. I presume that through these gaping jaws the undulations of sound pass, and are communicated in some way to the body

of the sitter, whose power of hearing is by these means increased; but the chair itself is very far from being a pleasing object. The stethoscopes exhibited by Mr. Rein are, on the other hand, very good instruments.

Mr. Durroch's case contains a large assortment of instruments, all of which are very remarkable as specimens of workmanship of the highest excellence. His amputating instruments are as good as can possibly be made at the present time; his pocket-cases are of small size, and their contents of very superior manufacture; his obstetric forceps (and, indeed, all his obstetric instruments) attracted my attention on account of their plainness and exactness; his cases of eye instruments are well selected and beautifully finished; and his tooth instruments are as good as the rest. He also exhibits Dr. Braxton Hicks' modification of the écraseur by means of which that gentleman now removes uterine polypi of considerable size, employing an annealed steel-wire rope, instead of the ordinary chain. The adjoining illustrations show the



instruments I now refer to:—Fig. 1 consists of a shaft, of which about two-thirds are hollowed out for the reception of the screw, and having a slit extending the length of the hollow, to allow the hook or button to traverse by means of the screw. The end of the shaft has one eye only, just large enough to allow the passage of the double rope. On each side, near the lower end of the shaft, there is a pin with a large eye, which both serves as a handle, and for fastening off the other end of the rope. When the rope can be passed easily over the growth to be removed, one end of it is to be securely fastened on to the hook or button, which is to be screwed up to the end of the slit; the other end is then passed twice through the eye, so as to form a loop, and brought down near to the arms of the screw. The loop is then passed over the tumour, and, the free end being brought down tightly with the hand, is fastened firmly to the pin. The arms of the screw being now turned, the hook brings down the wire, and section of the diseased structure is gradually completed. If the polypus be small, it is more convenient to make the loop, and fasten off both ends, before passing it round the pedicle. In this way the smaller instrument, Fig. 2, may be used. It is constructed on the same principle, the milled-edged head corresponding to the arms of the larger. Fig. 3 represents two handles, for passing the rope into position in cases where the tumour is out of the reach of the operator. They are hollow, like Gooch's canulæ, having at one end a cross bar. Their mode of employment is easily understood from the illustration. Dr. Hicks has detailed, in the *Transactions of the Obstetrical Society*, the advantages of the annealed steel-wire, and also related cases in which he has very successfully employed his écraseur; so that it will suffice for me simply to allude to them here.

Atkinson's case contains Mr. Barwell's splint for the employment of extension in disease of the hip-joint. The splint can be used without the extension apparatus, and consists of a wooden portion of about two and a-half to three inches in breadth, and long enough to reach from the crest of the ilium to some little distance below the foot. To the upper part of this is attached, at an obtuse angle, a metal portion, consisting of wire gauze or perforated zinc, which embraces the pelvis latterly and posteriorly, leaving the abdomen free. From end to end of this metallic belt a piece of india-rubber is stretched across the belly, so as to ensure its accurate adaptation. The extending part of the splint may be briefly described as consisting of two pulleys, placed, one at the upper and the other at the lower part of the wooden portion. To a perineal band a piece of catgut is attached, which, passing over the upper pulley, runs down the outside of the splint; another piece of catgut, fixed by proper means to the foot, runs under the lower pulley, also up the outside of the splint. An accumulator joins the two pieces of catgut, and, by a simple arrangement, any desirable tension can be exercised on the limb. Atkinson also exhibits Mr. Barwell's adaptation of Dr. Davis' American splint for hip joint disease. The object of this appliance is to keep up extension while the patient is walking about. The principle of this splint is to fix on the outer side of the limb, and between a point of the pelvis and another of the thigh, a rigid metal bar of such a length as to cause the weight of the body to fall no longer on the femoro-coxal articulation, but on that part of the pelvis chosen to receive the splint. The same maker also shows several trusses of good manufacture, amongst which may be especially noticed Atkinson's registered anal pad for supporting the rectum in cases of prolapsus ani, and in the curative treatment of hæmorrhoids. This instrument is shown in Fig. 4. Dr. Hall's truss for prolapsus uteri, with an improved perineal pad, and some well-made trusses for inguinal and femoral hernia, and for bathing purposes, are also contained in Atkinson's case, and merit the attention of the Profession.

Fig. 4.

Rogers (Birmingham) shows an ingenious truss, which is suitable for single or double hernia, the pressure being on the pads only, two of which cover the abdominal rings, and the third, resting on the spine, is connected by a strap, with a small pin equidistant between the two pads in front. By means of this arrangement uniform pressure is secured on both of them, which may be increased or decreased at pleasure.

The trusses exhibited by Arbuckle (Edinburgh) also require

a few words of description on account of the excellence of the principle adopted in their manufacture. The springs of these instruments are bent on edge like a sabre at the back, and in the opposite direction in front (Fig. 5), and their upper edge is slightly longer than the lower, so that when it is applied it fits very closely to the body throughout its whole course, and exerts its pressure in the right direction. If the truss become too large in consequence of the patient getting thinner, or of the pad becoming flattened, it can be adjusted to the altered circumstances by the following arrangement connected with a spring. This is made in two pieces (Fig. 6), the front

Fig. 5.

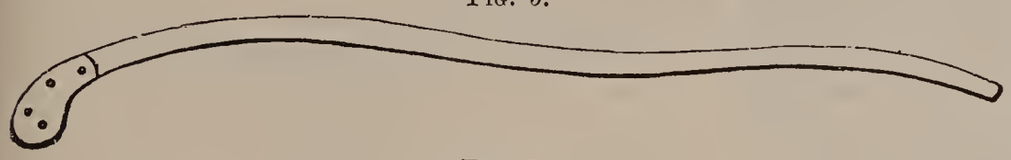
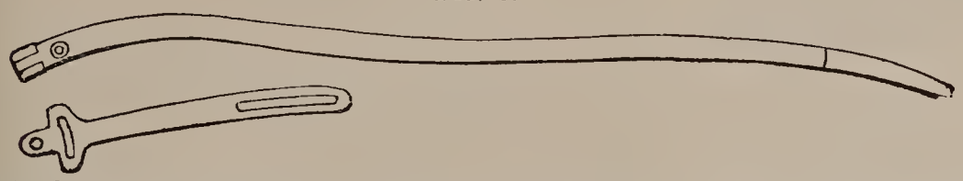


Fig. 6.



part, about three inches from the pad, being capable of being lengthened or shortened for one or two inches, by having a slit cut in the end of the front part of the spring, making it slide through a clasp on the end of the other part of the spring, and tightening it with a screw to the size required. Arbuckle also shows some ingenious appliances for making trusses, among which I may notice shears for cutting plates, and a simple punching-block for making holes in steel plate, which will also punch holes in tempered steel without breakage.

Whibley exhibits a model of his operating-table, which must now be so well known to the Profession as to render any description of mine quite superfluous. The Jury have testified their appreciation of his contrivance by awarding him a medal.

The respirators contained in Marsden's case (Sheffield) are very well and neatly made. Spratt exhibits an improved method of applying a truss for femoral hernia, which is very ingenious and worthy of notice; and his orthopædic instruments are generally very practical and well-made.

Dr. Coghlan, of Wexford, has a small case, in which are contained his metrotome and dilator for the treatment of dysmenorrhœa and sterility when depending on constriction of the canal of the cervix uteri. The metrotome consists of an oval-shaped knife, sharp on both its convex edges, and terminating in a blunt probe-point. The instrument, which is about eight and a-half inches in length, is so curved as to correspond with the direction of the uterus.

The operator, guided by the probe-point, is sure to make the incision directly into the uterine cavity with ordinary care, and the cut may be made of the exact depth required by using instruments of different widths. After the uterus has been divided, a leaden tube is inserted in the incision, and dilated by the second instrument to which I have referred. This dilator consists of two blades, forming, when closed, a slender, conical beak, one inch and a-half long, terminating in two long handles, with a spring and regulating screw. The leaden tube is tightly wrapped round the smaller end of the dilator, placed in position, and left there, after having been stretched to the proper size by pressing the handles. Dr. Coghlan has published cases illustrative of the benefits derived from the employment of his instruments, and, with the exception that now and then I should fancy there would be some difficulty in dividing the uterus from without inwards, I consider them to be eminently useful.

Captain Russell exhibits an improved Hospital bed appliance, a Hospital stretcher, an India-rubber urinal for cases of incontinence, and a spring camp-bedstead or stretcher. By means of the bed appliance a single nurse has entire control over a patient, to change bed and bedding, to cleanse and dress wounds, and for other purposes, for she can raise and leave him safely at any height. This contrivance, as well as the improved Hospital stretcher, Captain Russell exhibits in order that they be improved if possible, and generously presents his inventions to the public. They are both very excellent, and likely to render good service. The urinal also merits examination. Captain Russell has subjected many different fabrics to severe chemical tests, and has found that the rubber sold by Messrs. Burge and Warren, the agents for Goodyear's patent, is the best. This apparatus has received the favourable consideration of Government; and Captain Russell, in his anxiety that her Majesty's Medical Officers should obtain the best possible contrivance for so important a purpose, would be glad if any gentleman would suggest to him or to Messrs. Burge and Warren any improvement that can be made in the urinal.

The camp-bedstead or stretcher has been patented; for, in consequence of the treatment he received from the Army authorities, Captain Russell found it necessary to seek protection. It was expressly made for camp Hospital use, to remove badly-wounded men; but I consider that every railway station and Hospital ought to be furnished with one. The springs prevent shock in changing bearers, and keep the patient from the damp ground. It rolls into a small compass, and is quickly arranged for use. The simply-arranged cover not only keeps out sun and rain, but protects an injured person from the gaze of passers-by. Any amount of air can be admitted. These four inventions merit the attention of the Profession; and I cannot too much admire the spirit of philanthropy which has induced Captain Russell to devote, not only a great deal of time, but also a considerable sum of money, to the perfection of contrivances for the relief of the injured and the suffering.

47, Hans-place, S.W.

REVIEWS.

A Book about Doctors. By J. Cordy Jeaffreson. London: Hurst and Blackett.

A gossiping book, full of amusing anecdotes, strung together without much method, and related without much dignity; but serving very well to lie on the table, to be dipped into whilst a man is waiting for his dinner. Whoever desires to know all the fun and scandal connected with the history of our Profession, may find it here.

The Law of Storms, considered in connexion with the Ordinary Movements of the Atmosphere. By W. Dove, F.R.S., etc. With Diagrams and Charts of Storms. Second Edition, entirely revised. Translated by Robert H. Scott, M.A. Trinity College, Dublin. London: Longmans. 1862. Pp. 326.

Our space does not enable us to do more than recommend this work to the Surgeons in the Royal and Mercantile Navy, and such others of our readers as are enabled to study the phenomena of the weather on the large scale, and are possessed of the mathematical knowledge requisite for the study.

On Uterine and Ovarian Inflammation, and on the Physiology and Diseases of Menstruation. By Edward John Tilt, M.D., etc. etc. Third Edition, with coloured plates. London: John Churchill. 1862. 8vo, pp. 470.

This is a book which presents many points of interest. It is evidently the work of a man of industry, who, as student and Practitioner, has devoted immense pains to the investigation of the whole subject of the laws of woman's life in health and disease. It contains a large quantity of information, made easily accessible, and copious narrations of cases, which, from internal evidence, seem to be honestly recorded. It gives, also, some curious details regarding certain modes of practice which have come into use during our generation, and have been made the occasion of rather warm controversy between rival schools of Practitioners. Of course, we refer to the *speculum*, and the whole system of local uterine medication. Dr. Tilt's observations on this point are not only, we believe, thoroughly honest and straightforward and the result of his own convictions, but are delivered with a *naiveté*—heightened by a quaint Anglo-French phraseology—which makes them most amusing to any one who has watched the controversies of the day, and who knows what fashion is, whether it concern the dress or the diseases of the softer sex, or

the treatment of these diseases. A "Northern Practitioner" receives a quiet poke or two. The book shows, further, to the humiliation of our craft, how thoroughly and intensely ignorant we yet are as to the physiology of the ovaries in health, as to the nature of the "inflammation" which infests them, and still more as to the treatment. But this is not Dr. Tilt's fault. He has laboured hard, and honestly; and if he is, as we all are, like men deciphering hieroglyphics to which they have no key, it must be added to his credit that he has devoted his life to the task, and that he seems singularly free from one very common condition which makes ignorance irremediable: he does not seem wedded to his theory;—and so has nothing to blind his eyes, or to make him incapable of admitting any fresh accession to our knowledge.

After a short introduction, the author devotes the first part to the Physiology and Diseases of Menstruation; the second to Inflammation of the Womb; the third to Inflammation of the Ovaries, followed by a chapter on Pelviperitonitis. Each of these subjects is laboriously and fully worked out, but at too great length, with too many artificial subdivisions, and we are certain that the writer would have found conciseness conduce much to clearness.

The subject of ulceration of the neck of the womb—that old battle-field—is treated, as we have said, with great candour. "When I started in practice, twenty-five years since," says Dr. Tilt, "I firmly believed in the infallibility of nitrate of silver, and thought that with one caustic or another one could cure all diseases of the womb." He now thoroughly repudiates this narrow view, and candidly confesses that the neck of the womb and its ulcerations have been made too much of, so far as themselves are concerned. In so far as they are symptoms of deeper mischief they deserve attention; and ulceration of the womb, if it exist, should doubtless be treated by measures analogous to those employed in the treatment of ulceration elsewhere. All this is common sense.

The radical defect which is apparent—not in Dr. Tilt's book, for we carefully guard ourselves against throwing the blame on that—but in the knowledge possessed by the Profession of the subject of Dr. Tilt's book, is, that we know not what "inflammation" of the womb or ovaries is, and that we cannot define it; in fact, it might be shown, from Dr. Tilt's pages, that our very notions of it—as the cause of dysmenorrhœa, for example—are based upon unproved assumptions, and that, in giving the name of "inflammation" to certain conditions, we are, perhaps, retrograding in pathology instead of advancing. Why, the very normal state of the female genital organs can only be described by calling it inflammatory! Dr. Tilt quotes from Dr. Farre's article—"Uterus," in Todd's "Cyclopædia," to show that the normal condition of these organs, in the discharge of their functions, is identical with those which are known as congestive inflammation, ulceration, and abscess. The womb and ovaries become turgid with blood, like phlegmon; an ovarian vesicle bursts, as an abscess does. "This congestion, and subsequent ulceration and cicatrisation, *when observed elsewhere*," says Dr. Tilt, "as an effect to eliminate a foreign body, are called inflammatory. They attend the natural function of the ovaria, and are, therefore, phenomena as physiological as dentition; but this physiological excitement may merge into the pathological condition called inflammation, as it does so frequently in dentition."—P. 297. A more curious sentence, perhaps, was never penned. It puts one in mind of the Irishman's story of a man walking into himself, to read of identical processes in the same organ merging into each other. Again, instead of a definition of inflammation of the ovary (p. 294), we merely have a statement that it is "unjustifiable presumption" to deny its existence in certain cases in which it cannot be proved! There is a bit in the Introduction, too, which is very curious, where we are told, in substance, that, if uterine symptoms continue present after the cure of inflammation of the "neck," it is a sign that the body of the organ is affected; "and if, after we have cured both the neck and body of the womb, some patients still continue to suffer, it is because the ovaries continue inflamed." For our own parts, we think it is a pity that Dr. Tilt ever suffered himself to be hampered with the old, and now almost exploded, ideas of "inflammation." He evidently has a glimpse of something truer, when he says, "Respecting the reason why, in some, menstruation and ovulation are thus morbid, it seems to be the result of an innate defective organisation of the reproductive organs, causing the menstrual function to be unhealthily performed from first to last." This "innate defective organisation"—this morbid state of solids and fluids, of mind and body, of blood and nervous system, which hampers woman in the discharge of her sex's functions, is a condition which Dr. Tilt sees clearly enough. We can gather from his book that he would have done himself and his subject greater justice, if he had not endeavoured to put his new wine into the old pathological bottles of the last generation.

We take our leave of Dr. Tilt, with a sense of our obligation for his interesting work. We are, as yet, much in the dark as to the half mental, half bodily, sexual diseases of women, and are grateful to any one who labours at them so perseveringly and fairly.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, October 31.

THE INTERNATIONAL CONGRESS OF OPHTHALMOLOGISTS.

This Congress met here for the first time on the 30th September last, and continued its sittings till the 3rd inst. The choice of Paris as the seat of Congress was, in some respects, an unfortunate one, as French oculists have of late done very little for advancing the science of ophthalmology; and most of the members present were of opinion that Berlin or London would have been preferable. 114 members of the Society were present, amongst which I may mention Professor A. Von Graefe, M. Sichel, Desmarres, Anagnostakis, Ruete, Coccius, Abbate, Schweiger, Von Hasner, Turnari, Donders, Mr. Williams (of Cincinnati), Dr. Wecker, and others. The first meeting was taken up with the discussion and adoption of the statutes, the most important paragraphs amongst which are the following:—"In order to become a member of the Society, it is necessary to possess a diploma of M.D., or of Ph. D., or a surgical diploma, or any other legal title of this sort, or, finally, to have undoubted scientific acquirements. The meetings of the Society shall take place every four years, and shall last ten days; and the seat of congress shall be changed each session." We hope that these meetings may contribute to a somewhat better understanding amongst ophthalmologists than exists at present, for there is no denying the fact, that there is, with a few honourable exceptions, no other branch of the Profession in which there is so little goodwill of its several members towards each other, as amongst ophthalmologists; although it is true, on the other hand, that those oculists who are friends feel a sort of freemasonry, and would, as the saying is, go through fire and water to serve each other.

The second meeting was opened by the President, M. Vlemink, who, with a few words, claimed the indulgence of the assembly, and enjoined upon its members the greatest possible briefness, conciseness, and lucidity in their communications. The thanks of the meeting were then given to the Honorary President, M. Sichel, who had done much towards the organisation of the Society. Dr. Knapp, of Heidelberg, then spoke on the asymmetry of the eye in its different meridians. He said, that in the asymmetric eye there was a more considerable difference of visual distance in the principal meridianal surfaces, than in the normal eye. The only treatment applicable to such cases consisted of suitable spectacles. The instruments necessary for the diagnosis of this affection were the ophthalmoscope, the ophthomètre, a series of ordinary spheric spectacles, and a series of cylindrical, concave, and convex spectacles, ranging from No. 4 to No. 24. M. Courserent, of Paris, then spoke on granular catarrhalic ophthalmia; and proposed, as treatment, the abrasion of the conjunctiva, and even extirpation of the tarsi. M. Anagnostakis, of Athens, thereupon remarked that the treatment just mentioned reminded him of a German proverb to this effect:—"Das kind mit dem Bade ausschütten,"—to throw away the baby with the bath. He preferred the disease to the treatment of M. Courserent, for the remedy was worse than the affection. After this, a discussion on military ophthalmia took place, but not much new matter was elicited.

Dr. Hering, of Leipzig, then spoke on the identity of the retinas. He submitted that all endeavours made until now for showing the non-identity of the retinas, are only hypotheses without value, and all experiments made in order to prove it, and believed to prove it, were only badly interpreted.

The theory of the indentity of the retinas was no hypothesis, but merely a concise expression of a variety of facts connected with binocular vision,—a law deduced from a large number of experiments. If this law were to be attacked, it would be incumbent to show—1st, that we see single with non-identical points of the retina; and 2ndly, that we may see double with identical points of this membrane. Wheatstone believed to have shown this; but Dr. Hering contended that the stereoscopic phenomena only confirmed the theory of identical points, and referred the audience for further details on the subject to his publications ("Beiträge zur Physiologie," Leipzig, 1861-1862). Professor Ruete then showed, by a few experiments, that it was impossible to see single with non-identical points of the retinas, and that we never see double with identical points. The question, whether the identity of the retinas was founded upon habit, or whether it was congenital, had not yet been settled.

Dr. Coccius, of Leipzig, then demonstrated a new ophthalmoscope, by the aid of which it was possible to examine on oneself the anatomical structure of the retina. This ophthalmoscope had been used, with satisfactory results, in the clinique of M. Wecker. M. Abbate, of Egypt, asked whether this instrument was analogous to one which he had shown in 1844 to the Academy of Sciences of Paris, and by means of which he had studied the pathological anatomy of the retina? No answer was given to this question. M. Marques, of Lisbon, then read a paper on "Hemeralopia;" after which, M. Courserent made a communication on "Pellucid Staphyloma." He asked whether any member present could give him some hints for the treatment of pellucid staphyloma, as he did not know any remedy for this affection? The only thing he could affirm was, that he had never found this affection without posterior staphyloma being at the same time present. M. Abbate asked how M. Courserent could diagnose posterior staphyloma in a case of pellucid staphyloma; but Von Graefe indignantly remarked that subjects which had been settled long ago should not be brought before the Society, where so many important questions required consideration.

GENERAL CORRESPONDENCE.

ASTIGMATISM.

[To the Editor of the Medical Times and Gazette.]

Sir,—No inconsiderable quantity of trumpeting on this subject has lately appeared in the Medical journals, chiefly in praise of the labours of Professor Donders, to which a large share of originality has been ascribed, as you may see by referring to a paper by Mr. Z. Laurence in the *Medical Times and Gazette* of November 1. I have no wish to depreciate the labours of the learned Professor; but I have yet to learn that there is anything new in what he has said on this subject. The fact of such a condition of the eye as gives rise to the impossibility of seeing a lucid point as a point, or astigmatism—the very name itself, the theory of the imperfection, and the remedy, have long been before the Profession; and all have originated with English observers—Young, Airey, Whewell, and Stokes—an abstract of whose observations and suggestions may be seen in Mackenzie on "Diseases of the Eye," under the head of "Irregular Refraction." Even the frequency of astigmatism has not escaped notice, as the following extract shows:—

"To insure perfection in vision, the dioptric media of the eye would require to be normal in curvature, density, and position. It is probable, however, that the lenses of the eye, and especially the cornea and the crystalline, are affected with irregularities in these respects more frequently than is generally supposed, and that few eyes, in fact, are perfectly free from them. When such an irregularity is slight, the effect is, that an object, seen generally out of focus, but, in some instances, when placed at the distance of greatest distinctness, appears multiplied to the eye affected, a symptom which is called *uniocular diplopia;* while, in aggravated cases, vision is exceedingly disturbed, and as the rays of light coming from a luminous point, and falling upon the whole surface of the pupil, cannot be brought to a corresponding focal point within the eye, but, at different distances, converge in such a manner as to form two linear images at right angles to each other, the imperfection has received the name of *astigmatism*. . . .

The patient may detect the existence of such irregularities by closing one eye, and directing the other to a very narrow, well-defined luminous object. . . The line will be multiplied or variously disturbed. . .

"Numerous instances have been recorded in which, from some defect in its refraction, the rays of light, falling upon the eye, are brought to a nearer focus in a vertical than in a horizontal plane, so that the eye, regarded as an optical instrument, is not symmetrical about its axis. We meet with many eyes in this condition, that if a straight black line drawn on a sheet of paper is presented in a vertical direction, it appears double, but the instant it is turned in a horizontal direction it is seen single."—*Mackenzie*, 4th Edition, pp. 924, 925.

The same author proceeds to describe the remedy obtained by the use of cylindrical glasses, in such cases of defective refraction.

If there be really anything new in Professor Donders's work on this subject, the Profession will, no doubt, receive it with satisfaction; but to ignore the labours of preceding observers is unbecoming. I am, &c.

November 3. Chirurgus.

THE MAISON MUNICIPALE DE SANTE.

Letter from Dr. C. Morton.

[To the Editor of the Medical Times and Gazette.]

Sir,—The publication of the following cases would, I think, be useful, independently of their intrinsic interest, by directing the attention of English Medical men visiting Paris to the Maison Municipale de Santé, which, for want of sufficient information, is entirely overlooked by most of them.

Though the patients are all persons in a position to pay towards the accommodation they receive, the establishment is administered in common with the other Hospitals, and strangers are as liberally admitted and as courteously received by the Medical officers. Many circumstances combine to render M. Demarquay's surgical "service" one of the most interesting and instructive in Paris. I am, &c.

King's College Hospital, October 22. C. Morton.

STONE COMPLICATED WITH STRICTURE AND NUMEROUS PERINEAL FISTULÆ—OPERATION—RECOVERY.

An Italian, named Mariano, was admitted, under M. Demarquay, on July 3, with symptoms affording a suspicion of stone in the bladder, but much masked by the existence of an impassable stricture, which had been much neglected for six years, and was complicated by the existence of perineal fistulæ. These latter had five or six external openings, through which, the bladder being excessively irritable, water was almost constantly dribbling. He stated his age at 57, but looked 70.

Failing in repeated trials to pass an ordinary instrument, and finding reason to believe the alteration of the urethra to be very considerable in extent as well as degree, M. Demarquay conceived the idea that, if the point of a bougie terminating in a kind of screw could once be engaged within the commencement of the stricture, it might be insinuated through by a rotary motion. Appropriate instruments were constructed in whalebone by M. Charrière, and one was successfully passed through the stricture on August 16. This was soon followed by instruments of the ordinary kind, and the presence of a large calculus was ascertained. A further period of about three weeks was now devoted to the more complete re-establishment of the canal, and to the further improvement of the patient's general health, which was still very feeble. The urethra and perineum, however, remained in a state such as to render lithotrity both difficult and insufficient for the complete relief of the patient. The following operation was, therefore, performed on September 4:—

A staff with a median groove having been introduced into the bladder, a semilunar incision about three inches long was made across the perineum, in front of the anus, and deepened at its middle part by dissection through the thickened tissues down to the membranous urethra, which was found to be at an unusual depth. The altered portion of the urethra was then divided completely from behind forwards, a corresponding incision being at the same time made in the superficial parts, from the middle of the original incision, forwards along the

median raphe, for about 1¼ inches. A double lithotome caché was then introduced into the bladder, and an attempt made to incise the prostate with it in the usual manner. The chronically contracted state of the viscus, however—constantly empty as it had been—rendered it unsafe to open the blades sufficiently, and the section had to be made with a bistoury. (I should have mentioned that injections had been practised for some days in anticipation of this difficulty.) The prostate was of less than normal size. The stone, a very soft phosphatic one, was now seized and withdrawn by forceps. A flexible catheter was introduced, with some difficulty, into the bladder, and secured, with a view to the re-establishment of the urethra, during the healing of the wound, which was lightly stuffed with charpie.

The patient remained very feeble for a fortnight after the operation, and a slough of part of the scrotum was determined by the irritation of the urine. Since then, however, his condition has steadily improved, his appetite and strength have returned; and when I last saw him (October 7) the wound in the perineum had nearly healed, and the catheter, which had been kept in the urethra, with occasional intervals, since the operation, could be withdrawn and replaced with ease.

CANCER OF THE TONSIL REMOVED BY THE ECRASEUR.

The patient, a man named Remi, of strong and healthy appearance, aged 51, was the subject of epithelial cancer occupying the right tonsil and anterior facial pillar, and a small part of the base of the tongue on the corresponding side. The disease had been observed about fourteen weeks. No affection of the neighbouring glands could be detected. The following operation was performed on September 5:

An incision nearly three inches in length was first made along the anterior border of the upper part of the sterno-mastoid muscle on the right side, and a careful dissection made down to the fascia, immediately covering the two carotid arteries. The object of this proceeding was to enable the fingers of an assistant, kept in the wound during the subsequent application of the écraseur through the mouth, to press back the vessels, and prevent any important branch being drawn into the grasp of the chain. The man was then seated in a chair, and successive portions of the diseased mucous membrane were isolated, and pulled outwards by threads passed through them, so as to afford a peduncle to be included in the chain, which thus effected the removal of the whole in three applications. The difficulties of applying the instrument through the mouth to so limited and deeply-seated a surface were greatly mitigated by the admirable behaviour of the patient. His mouth was syringed out from time to time with cold water, and the bleeding was, upon the whole, very little.

He was discharged at the end of three weeks convalescent, but I did not have an opportunity of seeing the state of the parts.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, November 4.

Mr. Coulson, Vice-President, in the Chair.

Dr. Pollock showed

PART OF A LUNG TAKEN FROM A CHILD, AGED THREE AND A-HALF YEARS, WHO DIED OF PNEUMOTHORAX.

The interesting feature in this case was the occurrence of pneumothorax in a patient so young. He had suffered from cough and mild thoracic symptoms for a short time. Suddenly, symptoms of collapse, dyspnœa, with great exhaustion and restlessness, set in. Examination of the chest showed pneumothorax on one side. After death it was found that a very small cavity in the middle lobe had opened into the pleural sac at the interlobular fissure. There was much effusion of lymph on the pleural surfaces.

Mr. Coulson asked Dr. Pollock if, in any case, it would be justifiable to make an opening through the chest-walls to evacuate the air? He had seen a case in which, on account of the great distress, this procedure had been contemplated.

Dr. Pollock did not think that such a procedure could be of any avail. In some cases, the condition of the lung, after recovery from pneumothorax, seemed to be improved. He supposed that was from rest. It gave the lung time to rally. He agreed with Dr. Alison, that pneumothorax was much more common in phthisis than was supposed. He did not, however, agree with him in calling it the fourth stage of phthisis.

Dr. Bristowe thought with Dr. Pollock, that pneumothorax often occurred in phthisis; and he had noticed that patients often seemed to improve after recovery from the pneumothorax, especially when the side on which it occurred was the only one diseased.

Dr. Pollock then exhibited a specimen of

CANCER OF THE LUNG.

In this case there was a small tumour externally, about the position of the second and third ribs. The left pupil was contracted, and the left pulse was much smaller than the other. There was found extensive cancerous disease of the lung and pressure on its root, from disease of the glands. There was puckering in some places, but no tubercle was found. There were one or two cancerous masses in the other lung.

Mr. Coulson remarked on the difficulty of diagnosis in such a case, unless there had been the evidence of the external tumour.

Dr. Wilks said, in reference to the question of the existence of tubercle and cancer, that he had several times found low organisable lymph along with cancer, and several times ordinary tuberculous matter. He was, he said, under the impression that there was no such thing as true primary cancer of the lung. It was generally secondary, beginning in the bronchial glands, and then extending to the lung. Another disease described as cancer was not, he thought, true cancer.

Dr. Crisp said that there were cancer masses in the right lung which could not have been produced by extension of disease from the bronchial glands.

Dr. Pollock regarded those deposits as secondary to the cancer in the left lung.

Mr. Spencer Wells wished to know what was exactly meant by one of the forms of "secondary cancer" of the lung, alluded to by Dr. Wilks? That form of secondary cancer in which the lung was affected, as in Dr. Pollock's case, by extension from neighbouring parts, was easily understood; but in the other form, where deposits of cancerous matter were disseminated throughout a lung, it seemed clear that, if the growth was not primary, the cancer cells must be brought in the blood from some distant part of the body, and be stopped mechanically in the pulmonary capillaries.

Dr. Wilks said it was difficult to answer that question, as no one had ever found cancer in the blood. He, however, fairly believed that something was carried—a sort of cancer seed, to use an expression of Dr. Crisp.

Dr. Bristowe had seen true primary cancer of the lung.

Mr. T. Carr Jackson exhibited a

TUMOUR OF THE SUPERIOR MAXILLA, WHICH HAD BEEN REMOVED BY OPERATION.

The patient was a woman 26 years of age. Three years ago she had toothache in the upper jaw, attended with much swelling. A tooth was removed, but the swelling did not subside. The tumour occupied a great part of the superior maxillary bone, bulging the cheek, the septum of the nose, and the palate. Mr. Carr Jackson removed the whole of the superior maxilla, except the orbital plate. The chief point of interest in the operation was that no incision was made in the cheek. An incision was begun inside the nose, and carried down along the median line of the lip. The patient recovered very quickly: except a very slight hollowness of the cheek no deformity existed.

Dr. Wilks exhibited a specimen of

ADENOID TUMOUR OF THE OVARY,

from the Museum of Guy's Hospital, in which structures similar to those of the specimen shown by Mr. Spencer Wells at the last meeting, had been noticed by Dr. J. Braxton Hicks a year and a-half since, who had then pointed it out to some of those interested in the subject at that Institution. The drawings then shown were made at the time. It was intended to have brought out these observations this year, but interruptions occurred. The resemblance, both in generic form and microscopical character, of this to adenocele, is made still more striking by the fact that, in some of the specimens, fatty globules were formed. Dr. Hicks had found this condi-

tion in those forms of ovarian disease, hitherto classed as "proliferous cysts," but for which Mr. Wells' name of "adenoma" seems more suitable. Of the many specimens of this kind in Guy's Museum, those examined possessed this structure, some of them appearing to the naked eye like villi. Dr. Hicks considers it to be derived from the follicles of an irregularly developed skin, thereby forming one class of what are called "dermoid cysts," one of the specimens of this class in the Hunterian Museum, including both hair and teeth.

Mr. Spencer Wells said he hardly thought that Dr. Hicks and he had been looking at the same things. He had long been perfectly familiar with the groups of pedieulated cysts, so often seen to project like cauliflowers from the inner surface of large ovarian cysts, constituting what are known as "proliferous cysts." But in the case he had brought before the Society at the last meeting, the naked-eye appearance was totally different. The growth looked exactly like a mass of soft cancer, and it was only by hardening in spirit, and making thin sections, that the true character was discovered. He had searched all the best authorities, but had found no account of the growth he had ventured to describe as Adenoma. It was very interesting to hear that Dr. Hicks had found the well-known proliferous cyst to have a similar structure.

Dr. Bristowe said that nine or ten years ago he had published the details of a case similar to that related by Dr. Wilks. In that case there was cancer of other parts of the body; and he felt inclined to suppose that there was in the part he described a cancerous tendency.

Dr. Wilks said that he supposed Dr. Bristowe distinguished between true villus and villus-like. In true villus the vessel was the chief characteristic. The specimens he had shown was not true villus.

Dr. Bristowe said that his specimen was like the one exhibited. It was, he said, difficult to tell whether there was a vessel in the villus or not.

Dr. Bristowe then showed a specimen of

RUPTURE OF THE MEDIAN COLIC ARTERY.

The patient fell suddenly at his work, and was taken to St. Thomas's Hospital in a state of insensibility. He remained insensible until his death three days later. At the post-mortem a large clot was found in one of the hemispheres; and, on opening the abdomen, a large quantity of blood was found in that cavity. On careful examination it was found that this had ensued from a rupture of the median colic artery. Dr. Bristowe believed that this rupture had taken place when the man fell from the effects of the cerebral apoplexy.

Dr. Wilks said that he had several times seen blood effused in the abdominal cavity in large quantity, but had never been able to trace it.

Mr. Edgar Barker then showed a specimen of

EMBOLISM—PLUGGING OF THE FEMORAL ARTERY.

A gentleman, 65 years of age, who, until within a few months before his death, had been quite well. He had a sudden attack of giddiness with sickness, but this passed away. He had, however, a second, from which he never recovered. When Mr. Barker first saw him, after this second attack, he was much emaciated, and seemed very ill, but had no headache, no giddiness, no pain, and on examining the heart no valvular disease could be detected; and there was no increase of cardiac dulness. A week before death, however, high up in the left side, among the large vessels, a violent bruit was heard. Two days before death this bruit suddenly disappeared. Simultaneously, acute pain extended down the right leg, and in the course of the femoral artery, attended with marked diminution of temperature, and also with loss of sensation. Soon after this he became faint and died. At the autopsy the heart was found flabby, and its structure pale, and all the cavities were more or less enlarged, especially the right auricle, which was filled with recent fibrinous deposit. The aortic semilunar valves presented a remarkable appearance, being covered with bunches of warty-looking, fibrinous matter, more or less firmly attached to this structure. The aorta to the origin of the large vessels was considerably dilated and pouched, and the submucous tissue over the whole surface was infiltrated with atheromatous deposits, some of bony hardness. The large vessels were unhealthy as far as they were traced. On exposing the femoral artery at its highest point in front of the thigh, the tissues around it were found injected with blood; and at the point where the deep femoral was given off, the artery was found to be plugged with fibrinous matter to the extent of several inches. This, on exposure, was seen to be slightly adherent only to the sides of the vessel.

In reply to Dr. Bristowe, Mr. Barker said that the clot was supposed to have been carried; as the bruit disappeared, and the pain, &c., appeared at the same time.

Dr. Crisp thought that a clot so large could not be carried so far, and then assume such a form in the femoral artery. He thought that such clots were formed, and not carried. He considered that the disease in the heart was, to a certain extent, conservative. If parts of the arterial system were degenerated, and the heart strong and healthy, rupture would be more likely to take place.

Mr. Holmes said that it was clear that clots were sometimes carried to a distance, and instanced a case related by Esmarch, of Kiel, in which plugging of the carotid and cerebral arteries followed rough examination of an aneurism.

Mr. Callender thought that the cylindrical shape of the clot in the vessel had nothing to do with the original source of the clot forming the obstruction. In this case there was a bruit; it disappeared, and, at the same time, pain, loss of sensation, and diminished temperature, were found in the leg. There was extensive atheromatous disease of the great vessels, and he considered it probable that a piece of calcareous matter had formed a nucleus, on which fibrinous matter was deposited. This became detached, and was carried forwards, and the femoral artery was plugged. A further formation of clot took place here, just as it did after surgical ligature of an artery.

Dr. Hare said, that as the artery exhibited had not been opened, it was impossible to judge whether it was a case of embolism or not. He felt quite sure that the theory of embolism had been carried to a great excess. He thought that the disease of the valves in this case was enough to produce murmur, and that its disappearance might be accounted for by the failing strength of the heart. He thought, too, that the explanation of the cause of the fibrinous deposits in the spleen, and other organs, might be as well explained by local disease in the arteries as by secondary disease from clots carried from other parts of the circulation.

Dr. Bristowe also entertained doubts as to whether the specimen exhibited was one of embolism; and he agreed with Dr. Hare that this theory was carried too far. A few sessions ago he had recorded several cases of plugging of the cerebral arteries, but he felt certain that several of them were not cases of embolism.

Mr. Spencer Wells said that, whether the frequency of plugging of arteries by the detachment of vegetations from the valves of the heart, was or was not overrated, he felt convinced that the converse, or the mechanical plugging of the heart or lungs by fibrinous clots carried from the periphery to the centre, was not yet sufficiently recognised by Surgeons as a cause of mortality after injuries, operations, or local disease. If any one still doubted the transmigration of clots, he would remind them that Dr. Druitt had shown in that room a clot where the seat of fracture was most evident. The two broken portions fitted together exactly. He (Mr. Wells) had seen several cases of what some would call pyæmic pneumonia, others pulmonary embolism, in which it was very clear that the origin of the disease had been clotting of blood in the vessels of some part of the body injured or operated on. In one case he believed that an ordinary boil had been the source of the mischief. In another case serious cardiac and pulmonary symptoms, with an almost instantaneous appearance of a rash, like erysipelas or scarlatina all over the body, had followed the application of perchloride of iron to a cauliflower excrescence of the uterus; and in this case clots of various sizes had been found in almost every vessel examined after death.

Dr. Wilks believed that there was such a thing as embolism, and regarded Mr. Barker's case as a genuine instance of it.

Mr. Holmes and Dr. Hare were appointed to report on the specimen.

The Late Sir Benjamin Brodie, Bart.—The friends and admirers of this distinguished Surgeon will be glad to learn that Mr. Weekes, the eminent sculptor, succeeded in taking an admirable cast of the deceased for a bust on which he is now engaged for the Royal College of Surgeons.

OBITUARY.

SIR BENJAMIN COLLINS BRODIE, BART.

(Concluded from page 477.)

The "Psychological Inquiries" of Sir Benjamin Brodie have been reviewed in all the organs of professional and general literature: they have been read and admired by thousands, not merely of the Medical, but of all educated classes. In the case of the former, to many an evening of enjoyment have they ministered, after the toil of the day has been over, and many a topic of converse and new train of thought have they suggested, to enliven the routine of practice. Yet, familiar as our readers are with these delightful books, we feel that now, when taking a long farewell of Sir Benjamin Brodie as an author, we should be doing but scant justice to his memory, did we not linger awhile to call to remembrance some of their traits, and to acknowledge our obligations to the great Surgeon, who—stepping aside from the path which he had for nearly half a century investigated and illumined, in which his great successes had been won, which was especially his own—passed into regions of thought of wider extent, and thence gathered and bequeathed so fruitful a legacy to the intellectual world. Another reason for turning, at the present time, to these books, may be found in the fact, that in none other of his writings are we brought into such intimate relation with the man. The "Psychological Inquiries" are evidently the embodiment of thoughts which have been revolved and amplified, pursued and elaborated through the leisure of years. Many an idea which had its birth in the quiet country home of his boyhood, has doubtless borne its fruit here; and the solution of many a question which employed his sagacious intellect in the full tide of its power is here enunciated. These books show us the furniture of his mind, the mode in which it worked, the laws by which it was regulated, the sources whence he recruited it, and the limits he set te its efforts.

If we have rightly estimated the leading characteristic of Sir Benjamin Brodie's intellect, we think it to have been this: the power of keeping an idea clearly before his perception until he had looked at it from every side, had fully weighed the arguments for and against it, had tested its validity by connecting it with other ideas which he had previously subjected to the same mode of examination, and withholding his judgment, or postponing its reception, until the completion of the process. This thoroughness of thinking, whilst it had been fostered by his professional pursuits, had eminently contributed to his success in them. This was the secret of his extraordinary skill in diagnosis and his prescience in prognosis. It is the grand feature of the books before us, and we see it the more clearly from the form in which they are cast. The dialogue of the "Psychological Inquiries" is not employed to allow of diversity of style, or to introduce new methods of illustration. As the speakers in "Rasselas" all discourse in the same stately diction, so the three friends all express themselves in the same clear, easy, classic, though unadorned, English. There is no attempt at dramatic art. But of all other forms of composition, dialogue is the best adapted to display the resources of such a thinker. An idea is started and dilated on by one of the speakers. It is seized by the second, who regards it in another light, or from a different point of observation. The third interposes to reconcile the discrepancies and to harmonise the whole. The "setting" of the work, if we may use the expression, is of the simplest kind, and yet it is not without a peculiar grace. The description of the English scenery, in which the three friends find themselves, is evidently drawn from nature. In one or two instances the features of the landscape suggest a train of thought to one of the speakers, but no incidents are introduced to break the current of discussion which the writer pursues, and along which he gently, but irresistibly, conducts the reader.

In many of the thoughts which are introduced and dilated on in the "Psychological Inquiries," we have the matured opinions of Brodie. They crop up every now and then in his previous writings, and his estimate of their value may be judged from their repetition here. Thus, the superiority of self-acquired knowledge, over that taught by others, was adopted by him as a principle. When addressing the Medical students of St. George's Hospital in 1843, speaking to those who were on the point of offering themselves to the public as candidates for practice, he said: "You have not done much more than learn the way of learning. The most important part of your education remains—that which you are to give yourselves, and to this there are no limits." The dialogue on Education in the "Psychological Inquiries," has this observation worked out and illustrated by the examples of Davy, Hunter, Walter Scott, and Ferguson, the astronomer. Brodie believed that the faculty of reasoning correctly is, for the most part, a natural gift, and that it admits of artificial improvement only in a limited degree. He was disposed to think that modern education, instead of doing too little, erred on the side of attempting too much. "High education," he says, "is a leveller, which, while it tends to improve ordinary minds, and to turn idleness into industry, may, in some instances, have the effect of preventing the full expansion of genius. The great amount of acquirement rendered necessary by the higher class of examinations as they are now conducted, not only in the Universities, but in some other Institutions, while it strengthens the power of learning, is by no means favourable to the higher faculty of reflection." The main advantages conferred by education he held to be, that it strengthens the power of attention, and, in imparting knowledge, gives the individual worthy objects of contemplation for the remainder of life. He doubted whether even the study of mathematics tends to improve the judgment on those subjects to which mathematics are not immediately applicable; and, quoting the observation of Dugald Stewart—that mathematicians are credulous to a fault—he finds no difficulty in its explanation. It is because "the principal errors of reasoning on all subjects beyond the pale of the exact sciences, arise from our looking only on one side, or too exclusively on one side, of the question. But in mathematics there is no alternative. It has nothing to do with degrees of probability. The truth can be on one side only, and we arrive at a conclusion about which there is no possibility of doubt, or at none at all."

Brodie was no materialist. In no other work with which we are acquainted is the intimate relation of mind and matter, and their mutual dependence, discussed in a more philosophical spirit. His long pathological experience afforded him an amplitude of illustration, such as few other writers could adduce. The dialogue on the localisation of the faculty of memory is a remarkable instance in point. But, investigating the connexion between nerve substance and mind, he had convinced himself of their separate existence. Besides the arguments derivable from the difference between the properties of mind and those of matter—the infinite divisibility of matter, and the essential oneness of mind—the inherent conviction of the identity of the mind, together with the constant change of the molecules of the brain—there is one which is insisted on in both series of the "Psychological Inquiries," and which avowedly carried great weight with the author. It is Prichard's argument of the proof, in the universe, of intellect or mind separate from organisation, and under circumstances which preclude all reference to organisation. No one knew better than Sir Benjamin Brodie, that the teleological is not the sole or the highest lesson that organised nature is capable of teaching. If we are right in attributing to him (and we do so on good grounds) the essay which appeared in the *Quarterly Review* of 1853, on the writings of Professor Owen, we find him clearly recognising the principle, that in the highest problems of physiology, the principle of final causes, or "conditions of existence," fails to be applicable. But this does not detract from the importance and value of teleology in the numerous cases to which it can be applied. The evidence of intention and design, more especially manifest in the vegetable and animal kingdom, was to him convincing proof of a mind, independent in existence and action; and the conclusion he drew was, that "however immeasurable the distance may be between the mightiest intellect of man, and that of the Deity, it must be admitted that they belong to the same mode of existence;" and he adds, "I do not understand how any one who believes in the existence of a Deity can receive without hesitation the doctrine, that any kind of mind can be nothing more than the result of a peculiar arrangement of the molecules of matter."

The second volume of the "Psychological Inquiries," appearing as it did in the present year, is probably less known than its predecessor. In the preface he tells us that he has had two objects especially in view during their composition,—the one being to show that the solution of the complicated problem relating to the condition, character, and

capabilities of man is not to be attained by a reference to only one department of knowledge; the other, to claim for researches of this kind that they should be regarded, not as merely curious speculations, but as being of practical importance to every individual, enabling him to understand how far he may contribute to the cultivation of his faculties and his well-being in the present life. The readers of the book will entertain no different opinions as to the success which has crowned the last literary effort of Sir Benjamin Brodie. No man can read and ponder his teaching without becoming wiser and better. Although the bulk of the work may be considered an amplification of the former volume—the same topics being produced and dilated on—yet there is no repetition; and, on the other hand, most of the subjects, bearing directly or indirectly on the nature of man, which have occupied attention during the interval between the first and second series, receive their due quota of notice. We have only space for one illustration, and we choose the discussion of the Darwinian hypothesis. In the first place, he earnestly protests against the practice of placing questions in religion and questions in science in opposition to each other as equally detrimental to the cause of both. The doctrines of Lamarck and Darwin do not carry conviction to him. But he indignantly rejects the proposition, that they have any tendency to Atheism. "Trace back this system to its origin, and you find that it takes for granted as marvellous an act of creative power and wisdom as can possibly be conceived." He then shows that, admitting the remarkable transformations which, under certain circumstances, species undergo, they are confined to the external form, to the limbs, to the skin, and to its appendages. The more important vital organs, the muscles and nerves, and even the general form of the skeleton, remain unchanged. Admitting the force of the argument derived from the resemblances and analogies, as to both structure and functions, which may be traced throughout the whole animal kingdom, and which make it appear formed on one common pattern; yet there are instances of the appearance of organs which seem to have had no prototype, which, as if by some special act of the creative power, have been conferred on a limited number. Such, for instance, are the poison fangs and glands of serpents, the electric battery of the torpedo and other electric fishes, and the spinning apparatus of the spider. "There are no structures in other animals from which we can conceive that these have derived their origin." He, therefore, concludes that, even if the theory of development be true, it cannot be said to contain the whole truth; and this is sufficient to make it doubtful altogether.

The effects of civilizing influences on the lower varieties of man lead to a speculation as to the future of the earth, with which the volume closes. It is one which, doubtless, has occurred to most thinking persons, but it is itself so suggestive, that we cannot refrain from quoting it here:—"Whatever may be the future destiny of man, is he really so perfect that he should be regarded as the crowning piece of the creation? We have the history of the former inhabitants of our planet, not handed down by tradition, not written in books, but recorded in indelible characters in the strata immediately below the surface of the earth. We learn from these, that numerous forms of animal life existed, in ages which have long since gone by, which have now become extinct; that the first of these which were called into existence were of a simple kind; and that by a gradual, though by no means regular progression, these have been succeeded by others of a higher and a higher order. Is man to be considered as the last of these productions; or, is it not more probable that he does but stand in the middle of a long series, and that in the far distant future there may be a time when, his mission on earth having been completed, he, too, will be replaced by other living beings,—far superior to him in all the highest qualities with which he is endowed, and holding a still more exalted place in the system of the universe? You will say this is but a vain speculation, from which no practical good can arise, and I admit the justness of the remark. If, however, such unanswerable questions sometimes present themselves to us, it is but the result of a principle implanted in the human mind for the highest and most beneficial purposes, under the influence of which we are led on in the pursuit of knowledge, some in one direction, some in another, until we arrive at that point where knowledge terminates, and we have to substitute a more or less probable conjecture for a legitimate conclusion. Such conjectures, founded on a reasonable analogy, are not to be regarded as altogether worthless. It is for us to learn where our inquiries should end, and not to bewilder our minds by the endeavour to penetrate into regions beyond the reach of the human intellect."

We can but refer to the minor pieces which appeared from his pen during the last decade of his life. We have already stated that we believe him to have been the author of the masterly articles in the *Quarterly Review*, on the "Progress of Comparative Anatomy and the Writings of Professor Owen." Amongst his acknowledged writings are the Address on Social Economy, delivered before the first meeting of the National Association for the Promotion of Social Science. In this he brought his practical good sense and long experience amongst all classes to bear on the subjects of the moral evils which disgrace our population. Drunkenness, prostitution, illegitimate births, poisoning, led him to the subject of remedy. Education, employment for women, clothing clubs, sailors' homes, poor-houses, are all discussed in a manner which shows that both in and out of his Profession he was essentially practical. His Letters on Homœopathy and Tobacco-smoking will be in the memory of all. In no hypercritical spirit we observe, that in the instance of the latter he appears to have somewhat departed from the rule by which he was generally guided—viz., to receive all facts which are founded on proper evidence, and never to reject any if resting on sufficient basis, because they appear to be at variance with other admitted facts. In this instance we think he was led by the best motive into too sweeping a condemnation, and that he did not sufficiently distinguish between use and abuse. But such an error, if admitted, is but a mote in the sunbeam of his literary course.

If it be high praise of a scientific and philosophical writer to say that his powers of observation were unsurpassed in his generation, and yet only equalled by his faculty of reflection—that these faculties, although primarily devoted to the promotion of the science of his own immediate calling, were also directed largely to the acquisition of other realms of knowledge—that amidst employments of the most exacting nature, leisure for composition was found by a diligence that never flagged—that his thoughts were clothed in a diction so pure, in a style so unostentatious, that it was classically beautiful in the very absence of ornamentation—and, above all, that a line never fell from his pen, which had not, directly or indirectly, for its aim, the good of his species—it is the meed of Sir Benjamin Brodie. For the close of such a scientific and literary career there is but one motto—"Non est lugenda mors quam immortalitas consequitur."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary Examinations, received the Certificate in Dental Surgery, at a Meeting of the Board, on the 4th inst.:—

James Clarke, Nottingham; Daniel Taylor, Cheltenham; Nathaniel Stevenson, M.R.C.S. 1857, Cleveland-square; Henry Thomas Kirby, Leicester; John Thomas Browne Mason, Palace-gate, Exeter, Devon; Henry Charles Hervey Langhurst, Lutterworth, Leicestershire; James Robertson, Rochester; James Joseph Simmons, Chester-place, Kennington; Thomas Morgan, Orchard-street, Portman-square; John Thomas Henry West, Old Broad-street, City, M.R.C.S. July, 1861; Murray Joel Davis, Norfolk-street, Strand; Morris De Courcy Dickinson, Euston-square; John Elwin, Southampton; Isaiah Alfred Mosely, Grosvenor-street, Grosvenor-square; and William Henderson Nicol, Leith.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, October 30, 1862:—

Robert Thomas Nichols, Rotherhithe; Edward Howard Moore, Newmarket-terrace, Cambridge-heath; William Smyth Russell, Dublin; William Thomas Jones, Kentish-town; William Johnstone Irvine, Galgate, Lancaster.

As an Assistant:—

William Gowland, Sunderland.

The following gentlemen also on the same day passed their First Examination:—

George Elkington, Guy's Hospital; Hugh Taylor, St. Bartholomew's Hospital; Josiah Court, Sydenham College, Birmingham; Charles S. A. Atkinson, University College.

APPOINTMENTS.

Ackland.—William Henry Ackland, M.D. St. And., M.R.C.S. Eng., L.S.A. Loud., has been appointed Physician to the Dispensary, Bideford, Devon.

Adey.—Assistant-Surgeon A. W. G. Adey, Indian Service, has been appointed Surgeon to the Gujarat Bheel Corps, with the charge of Vaccinating duties in the Rewa Kanta.

Blair.—Thomas Blair, L.F.P.S. Glasg., has been appointed Surgeon to the Dalquharran and Kilgrammie Collieries, Dailly, Ayrshire, *vice* Alexander Blair, L.R.C.S. Edin., resigned.

Bruce.—Assistant-Surgeon Bruce, Indian Service, has been posted to the 2nd Regiment Light Cavalry.

Cayley.—William Cayley, M.D., M.R.C.S. Eng., L.S.A. Lond., has been elected Physician to the Islington Dispensary, Upper-street, *vice* John Hughlings Jackson, M.D. Univ. St. And, M.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Lond., resigned.

Cook.—James John Cook, L.F.P.S. Glasg., has been appointed Resident Medical Officer and Secretary to the Royal Isle of Wight Infirmary, Ryde, *vice* George Henry Case, M.R.C.S. Eng., L.S.A. Lond., resigned.

Cooper.—Dr. William Cooper has been appointed Surgeon to the Infant Orphan Asylum, Wanstead, *vice* Mr. S. F. Underhay, resigned.

Evans.—Caleb Evans, M.R.C.S. Eng., has been elected Surgeon to the Birkenhead Borough Hospital, *vice* Charles Olives Baylis, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., L.R.C.S. Edin., L.S.A. Lond., resigned.

Fairbairn.—Peter Fairbairn, M.D. Univ. Edin., L.R.C.S. Edin., and L.M., has been appointed Surgeon to the House of Refuge, Edinburgh, *vice* Peter Fairbairn, M.D. Univ. Edin., F.R.C.P. Edin., formerly Surgeon R.N., deceased.

Fitzgerald.—Alexis Fitzgerald, L.R.C.S. Irel., L.M. Anglesey Lying-in Hospital, Dublin, has been elected Medical Officer and Public Vaccinator for the Carrick-on-Suir Dispensary, District of the Carrick-on-Suir Union, Co. Tipperary, *vice* Joseph Edmundson, M.D. Univ. St. And., L.K.Q.C.P. Irel., M.R.C.S. Eng., L.M. Dub , resigned.

Glass.—Assistant-Surgeon Glass, Indian Service, has been posted to the 2nd Regiment of Scinde Horse.

Griffiths.—Thomas Griffiths, of Dryslwyn-fawr, Carmarthenshire, has obtained the Filliter Exhibition at University College, London, for proficiency in Pathological Anatomy.

Hartland.—William Bryan Hartland, L.S.A. Lond., has been re-elected Medical Officer and Public Vaccinator for the Parish of Tormoham, Newton Abbot Union, Devonshire.

Jackson.—Henry William Jackson, M.R.C.S. Eng., L.S.A. Lond., of the Lancaster County Lunatic Asylum, Rainhill, has been elected one of the Assistant Medical Officers of the Surrey County Lunatic Asylum, near Tooting.

Leishman.—William Leishman, M.D. Univ. Glasg., L.R.C.S. Edin., F.F.P.S. Glasg., has been appointed one of the Dispensary Physicians of the Royal Infirmary, Glasgow, *vice* John B. Cowan, M.D. Univ. Glasg , F.F.P.S. Glasg., resigned.

Moore.—John S. Moore, Assistant-Surgeon R.N., has been confirmed to the *Brisk*.

Palmer.—Francis Paul Palmer, M.R.C.S. Eng., L.S.A. Lond , has been appointed Surgeon to the Police Force for the Borough of Walsall, Staffordshire, *vice* Edward Joseph Marshall, M.R.C.S. Eng., L.S.A. Lond., deceased.

Prangley.—Thomas Prangley, M.R.C.S. Eng., L.S.A. Lond,, Associate of King's College, London, has been elected Medical Officer for the Aldborough District of the Erpingham Union, Norfolk, *vice* Samuel Hammond, L.R.C.P. Edin. (exam.), M.R.C.S. Eng., L.S.A. Lond., resigned.

Rodgers.—Julian Edward Disbrowe Rodgers, M.R.C.S. Eng., L.S.A. Lond., has been appointed Lecturer on Toxicology at the London Hospital Medical College, *vice* Henry Letheby, M.B. Univ. Lond., L.S.A. Lond., resigned.

Roe.—Thomas A. Roe, M.D., Assistant-Surgeon R.N., December 28, 1857, has been appointed to the *Trafalgar*.

Sanderson.—Assistant-Surgeon Sanderson, Indian Service, has been posted to the 1st Regiment Light Cavalry.

Smith.—Cleveland Smith, of Guy's Hospital, L.S.A. Lond., has been appointed Assistant House-Surgeon and Dispenser to the Kent and Canterbury Hospital, *vice* James Lodge Wilson, M.R.C.S. Eng., resigned.

Williams.—William Morgan Williams, M.R.C.S. Eng., has been appointed Certifying-Surgeon under the Factory Act for the Pwllheli District, Llanidloes.

DEATHS.

Benjamin.—July 27, at Tarree, New South Wales, R. D. Benjamin, aged 43.

Bruorton.—October 30, William Bruorton, of Wincanton, Somersetshire, M.R.C.S. Eng., L.S.A. Lond., M.S.A., aged 61.

Burkitt.—October 24, Thomas Wood Burkitt, of the Crescent, Selby, Yorkshire, L.S.A. Lond., one of the Coroners for the county of York, Surgeon to the 38th West York Rifle Volunteers, aged 38.

Gardner.—October 17, Mr. Garduer, of Haverhill, Suffolk.

Harrison.—October 28, Edward Harrison, of Sheffield, L.S.A. Lond., aged 46.

Lander.—Recently, James Lander, M.D. Univ. Glasg., M.R.C.S. Eng., L.S.A. Lond., Staff Assistant-Surgeon, Army.

Lawrence.—November 4, at No. 1, King Edward's-terrace, Lower-road, Islington, John Lawrence, late of Brighton, Surgeon, aged 46.

Mallalieu.—October 30, Francis Colston Mallalieu, of Fairfield, near Manchester, M.R.C.S. Eng., L.S.A. Lond , aged 53.

Waddell.—October 28, Thomas Waddell, of Scarborough, Yorkshire, F.R.C.S. Edin., aged 70. He was an Alderman of the Borough, and had been Mayor twice ; he was also a Justice of the Peace, etc.

Wattsford.—October 30, William James Wattsford, of Croom's-hill, Greenwich, M.R.C.S. Eng., aged 68.

LONDON GAZETTE.

October 31.

70th Lancashire Rifle Volunteer Corps.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon William Gould in the above corps.

November 4.

5th Battalion of Staffordshire Rifle Volunteers, 14th Company.—Harmer Somerville, Gent., to be Honorary Assistant-Surgeon; dated October 25, 1862.

Prince Albert's Own Leicestershire Regiment of Volunteer Cavalry.—Charles Morton Sidley, gent., to be Assistant-Surgeon, *vice* Derington ; dated October 27, 1862.

Edward R. Blackett, Esq., M.D., has recently been appointed Magistrate for the Borough of Southwold, in Suffolk, by commission under the Great Seal.

The Students of Guy's Hospital have subscribed £26 to the Mansion-house Fund for the Lancashire Operatives this day.

Dante, a Pharmacien.—There seems to be but little doubt that the illustrious poet figured among the *Pharmaciens* of his period, his name having been found in a list bearing date July, 1282.

Gresham College.—Dr. R. H. Southey commenced his course of Lectures on Physic, founded by Sir Thomas Gresham, on Thursday last. He delivered a lecture yesterday, and will do so to-day, in Latin at twelve o'clock, and in English at one o'clock. The public are admitted gratuitously to these lectures, which are delivered in the theatre of Gresham College, Basinghall-street.

Royal Institution of Great Britain.—General Monthly Meeting, Monday, November 3, 1862.—William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair. August F. Andresen, Esq., Thomas R. Williams, Esq., and Hon. William Warren Vernon, were elected members of the Royal Institution. The decease of Sir B. C. Brodie, Bart., Manager of the Royal Institution, was announced. The following lecture arrangements had been made for the ensuing season:—Christmas Lectures, 1862.—Professor Frankland, F.R.S., six lectures, "On Air and Water," (adapted to a juvenile auditory). Before Easter, 1863.—Professor J. Marshall, F.R.S., twelve lectures, "On Physiology;" Professor E. Frankland, F.R.S., ten lectures, "On Chemistry;" W. Savory, Esq., F.R.S., four lectures, "On Life and Death;" Professor Max Müller, twelve lectures. After Easter.—Professor Tyndall, F.R.S., seven lectures; D. T. Ansted, Esq., F.R.S., nine lectures, "On Geology;" Professor William Thomson, F.R.S., three lectures, "On Electric Telegraphy." The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

A Microscopic Vertebrate.—In the "Annals and Magazine of Natural History" for October, Dr. G. C. Wallich, F.L.S., contributes a note on the discovery of an extremely minute vertebrate lower jaw in mud, dredged at St. Helena, at the depth of 30 fathoms. He states that in it the jaws and teeth are fully developed and perfect, there being nothing in the aspect of either to indicate their having formed portions of a creature in a fœtal condition. The extreme length is $\frac{1}{100}$ inch; assuming the body to have been five times as long as the jaw, he concludes that we have here evidence of the existence of a vertebrate animal measuring only $\frac{1}{20}$ inch in length, a size considerably below that of many of the organisms usually regarded as microscopic. Dr. Wallich promises further particulars. His rough sketch shows evidence of an articular condyle, and a well-developed vertical coronoid process, as well as four teeth in the premandibular portion, either pair of which might, by their greater size, correspond to the canines. We have not, however, seen the original specimen; and must, in the meanwhile, venture to express very strong doubts as to its actual vertebrate nature. No doubt some of our best microscopical observers will deal with this curious, but obscure topic.

Meath Hospital and County of Dublin Infirmary.—The Session 1862-63 was opened on Tuesday, the 4th inst., in the theatre of the Hospital, with an able and interesting address by Dr. Stokes, F.R.S., Senior Physician to the Institution. This was the first occasion on which the inauguration of the session has been entrusted to one of the Physicians, the opening address having hitherto always been delivered by one of the Surgeons. It was also the first occasion, we

believe, on which a Medical lecture was honoured with the presence of the representative of majesty. The theatre was densely crowded with a distinguished audience, among whom were his Excellency the Lord Lieutenant, the Lord Mayor, the Lord Justice of Appeal, the Right Hon. Joseph Napier, Sir Edward Grogan, Bart., M.P., the Rev. the Provost of Trinity College; Sir George Hodson, Bart.; Sir Robert Shaw, Bart; the Hon. and Very Rev. the Dean of St. Patrick's; Sir Robert Kane, President of Queen's College, Cork; Dr. Corrigan, President of the King and Queen's College of Physicians; Dr. Colles, Vice-President of the Royal College of Surgeons; the Rev. Professors Jellett, Galbraith, and Haughton, etc. At the conclusion of the address, his Excellency rose and said:—"Gentlemen,—On these occasions there is only one person privileged to address you *vivâ voce*, but I am sure I am right in thinking that we all must have admired, though we probably in very different degrees appreciated, the suggestive, able, luminous, and eloquent address of Professor Stokes."—(Loud applause.) The proceedings then terminated.

Sir Benjamin Brodie.—The following resolution was unanimously adopted at the meeting of the Weekly Board of St. George's Hospital, on October 29, 1862:—"The Weekly Board of St. George's Hospital beg to express their most sincere condolence and sympathy with the family of Sir Benjamin Brodie on their recent irreparable loss. The brilliant career of Sir Benjamin Brodie has been graced by every honour which unrivalled skill and science could obtain for an English Surgeon; and the Governors of St. George's Hospital, with the strongest feelings of affection and gratitude for his eminent services during more than half a century, as Surgeon and teacher, and as trustee, are confident that the institution, which he always warmly loved, will even yet long continue to profit by an association with his character and name. It was chiefly in the wards of this Hospital that his unwearied industry and observation enabled him to accumulate that store of sound practical knowledge which was imparted with admirable simplicity and clearness to the students, and which has greatly advanced the art of Surgery itself. In the valuable museum, which he generously devoted to the use of St. George's Hospital Medical School, may still be seen the proofs and results of the doctrines which he taught in his lectures and writings. But, above all, the Governors look for the permanent influence of his instructions in the high principles of Professional conduct,—the uniform kindness and consideration for others,—the laborious search after knowledge, from feelings of usefulness and duty, as well as from love of science,—ever consistently shown in Sir Benjamin Brodie, and strongly inculcated on his pupils in the exercise of their skill and talents,—which have thus been propagated through them to all parts of the British Empire."

The Hunterian Museum.—The Council of the Royal College of Surgeons has just purchased some skeletons of rare and interesting animals beautifully prepared by Professor Hyrtl, of Vienna, and by him forwarded to the International Exhibition, where they were justly admired. They consist of *Chlamydophorus truncatus*, found at Mendoza, in Chili, and first described by Dr. Harlan, from a specimen now in the Philadelphia Museum. It is supposed that there are but three skeletons of this curious little animal in Europe, which is very much like the *Glyptodon clavipes*, so familiar to the visitors to the College museum, only that the one in question is so small that it could readily run about in the mouth of the former. The late Mr. Yarrell described and figured the animal in the *Zoological Journal*. This, with a second specimen obtained by Sir Woodbine Parish, is in the British Museum. The specimen now the property of the College has been the subject of an elaborate memoir by that distinguished Hungarian, Professor Hyrtl, in the *Denkschriften der Akademie der Wissenschaften*, illustrated with some clever drawings. Another case contains skeletons of rare fish, including examples of the three genera of existing ganoid fish, *Lepidosteus*, *Polypterus*, and *Amia*; also a case of *Batrachians* (frogs and toads), two cases of tailed *Amphibia* and snakes. This department of the museum has also been recently enriched by some fine skeletons of large British fish, admirably prepared by Mr. James Flower, the College articulator; one especially, which will well repay a visit, being a fine specimen of the sword-fish, 10 feet in length, taken in October last off the Suffolk coast, in the herring nets, and purchased by the College. The museum, which has been opened on extra days during the International Exhibition, has been crowded with visitors, including a great number of foreigners.

Manchester Medico-Ethical Association. — The following Memorial was presented to the Manchester City Council by Mr. Councillor Horsfall, on Wednesday, October 29, 1862:—"To the Mayor, Aldermen, and Citizens of Manchester, in Council assembled: Your memorialists, on behalf of the Manchester Medico-Ethical Association, beg to express their satisfaction that the Council is inquiring into the efficiency of the Coroner's Court, and its capability of fulfilling the ends for which it was instituted. The objections to the Coroner's Court, as at present constituted, are numerous and important—not merely local, but general and inherent. Your memorialists submit that the mode of appointment of the Coroner—his qualifications for the office—the extent of his powers—the routine and imperfect system of investigation, and the class of persons from which Coroners' Juries are usually selected, are some of the more prominent defects which demand the serious attention of the Council. Your memorialists, whilst expressing their concurrence, generally, with the substance of Professor Taylor's letter, and without committing themselves to the scheme there embodied in its totality, regard it as a basis for entirely remodelling the ancient institution, and adapting it to the requirements of a more advanced age, which, in their opinion, is urgently called for. Your memorialists, feeling the importance of the subject, propose to take an early opportunity of petitioning Parliament (where only reform can be obtained); and, in conclusion, they respectfully suggest to the Council the value of the co-operation of all public authorities.—Signed on behalf of the Manchester Medico-Ethical Association, J. L. Bardsley, Knt., *President;* Daniel Noble and Richard Allen, *Vice-Presidents;* Louis Borchardt, *Treasurer;* Joseph Stone and Jonathan Wilson, *Hon. Secs.*"

Leopards and Small-pox.—Leopards are strongly attracted by the peculiar odour which accompanies small-pox. The reluctance of the natives to submit themselves or their children to vaccination, exposes the island to frightful visitations of this disease; and in the villages in the interior it is usual on such occasions to erect huts in the jungle to serve as temporary hospitals. Towards these the leopards are certain to be allured; and the Medical officers are obliged to resort to increased precautions in consequence. This fact is connected with a curious native superstition. Amongst the avenging scourges sent direct from the gods, the Singhalese regard both the ravages of the leopard and the visitation of the small-pox. The latter they call *par excellence* "maha ledda," "the great sickness"; they look upon it as a special manifestation of devidosay, "the displeasure of the gods"; and the attraction of the cheetahs to the bed of the sufferer they attribute to the same indignant agency. A few years ago, the capua, or demon priest of a "dewale," at Oggalbodda, a village near Cattura, when suffering under small-pox, was devoured by a cheetah, and his fate was regarded by those of an opposite faith as a special judgment from heaven. Such is the awe inspired by this belief in connection with the small-pox, that a person afflicted with it is always approached as one in immediate communication with the deity; his attendants address him as "my lord," and "your lordship," and exhaust on him the whole series of honorific epithets in which their language abounds for approaching persons of the most exalted rank. At evening and morning, a lamp is lighted before him, and invoked with prayers to protect his family from the dire calamity which has befallen himself. And after his recovery, his former associates refrain from communication with him until a ceremony shall have been performed by the capua, called "awasara-pandema," or "the offering of lights for permission," the object of which is to entreat permission of the deity to regard him as freed from the divine displeasure, with liberty to his friends to renew their intercourse as before.—*Sir J. Emerson Tennent.*

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·682 in.
Mean temperature	46·8
Highest point of thermometer	58
Lowest point of thermometer	28·5
Mean dew-point temperature	45·1
General direction of wind	S.W. & S.E.
Whole amount of rain in the week	0·54 in.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Crosby Hall is mistaken in supposing that a Medical Journal could take any notice of that squabble at the Cirencester College.

A. B.—We would not prosecute any Apothecary for calling himself a Surgeon, but we would prosecute a Surgeon for calling himself an Apothecary.

An Old King's Man had better wake up. We were not speaking of the old empirical system of teaching osteology, but of the modern philosophical anatomy.

B.F. will see, by the advertisement, that the "Aërated Bread Company" is getting into active operation.

Torquay.—Flannel appears to absorb perspiration more quickly, and to give it off more freely: at any rate, popular experience, which is the safest guide, decides in favour of flannel as a dress next the skin in this climate. The usual point to be considered in choosing clothing is, lightness and porosity without weight. The Chinese are said to quilt their dresses with cotton in their severe winters. Eider down, or genuine quilted counterpanes, are warm and light. What is called a *quilt*, usually, is no quilt, but a mere heavy and impervious covering. Heavy clothes of great density exhaust the strength and confine perspiration. The best coverings for night and day are porous, and admit of free *diffusion* of air, *i.e*, diffusion in contradistinction to mechanical movement. The lightest woollen dresses are the *Shetland*; the fine elastic wool enables them to occupy large space with little weight, and, we believe, they do not irritate the skin. They are to be got at Baker's, in New Bond-street. Mr. Borlase Childs has written some sensible remarks on the dress of the police, in the form of a report to the Commissioners of Police for the City, to whom he is Chief Surgeon. The ventilating properties of clothes, *i.e.*, tho permitting all effluvia and moisture freely to pass off, is very important. Heavy boots should never be worn in the house. They keep cold feet cold.

Christian Medical Association.—The ninth annual meeting of this Society was held at the Freemasons'-hall, Great Queen-street, on Friday, October 24, at 8 p.m.; H. Hyde Salter, M.D., F.R.S., in the chair. The Report of the Committee stated that the weekly meetings of the Society for the study of the Bible had been continued throughout the past Winter and Summer Sessions at the Freemasons'-hall, on Saturday, at 8 p.m., and that they had already recommenced for the present Session. They close the report by saying, that "One other and a most important subject has been much pressed upon their attention during the last few months—it is that of Medical missions to the heathen Of the value and the need of such missions the Committee had no doubt, but they should not have considered themselves at liberty to undertake a missionary charge in addition to that work for which they were originally constituted, unless the subject had been much and repeatedly urged upon their attention. The Committee still hesitate to think that they could be so honoured as to be entrusted with the bounty of the Profession in such a cause, but they have already ventured to ask attention to the subject. In August last they held one public meeting at the St. James's-hall, to which the Members of the British Medical Association then in Loudon were invited, and at which the subject was briefly introduced. They are also, in pursuance of a resolution of that meeting, engaged in preparing a scheme for the support of Medical missions by the Profession, which, when matured, they hope to make public. Meanwhile, they take this as one fitting occasion to renew their appeal to Medical men for an earnest consideration of the whole subject." The meeting was afterwards addressed by the Rev. W. Cadman, Rev. W. Arthur, Prof. Balfour, Dr. Stewart, and Mr. Pye Smith. From the Auditor's abstract of accounts it appeared that, after expending the receipts of the year, amounting to £43, the Society remained indebted to the Treasurer, R. D. Grainger, Esq., F.R.S., in the sum of £7. [With the most earnest desire to see our Profession specifically, distinctly, and largely employed to promote the spread of Christianity, we strongly deprecate the setting up any new organisation, or the undertaking any such scheme by the Profession as a body. We believe that Medical men can do good only by acting in concert with existing missions.—Ed. M. T. and G.]

"The Coagulation of the Blood the Cause of Insanity."

To the Editor of the Medical Times and Gazette.

Sir,—A paper read at the Scientific Congress, at Cambridge, induces me to call your attention to the fact, that, although to Dr. Richardson is ascribed the discovery of the fluidity of the blood being due to ammonia, he was anticipated by Dr. Havar upwards of 200 years ago!

I am, &c.

October 31. James Bruce, late 33rd Regiment.

The Late Trial for Malpraxis.

To the Editor of the Medical Times and Gazette.

Sir,—May I beg to call your attention to a report in the last Number of your paper, headed "Trial for Malpraxis," in which your compositor misplaces my evidence, which makes one of my solicitors ask me a question, which is apparent was intended for the plaintiff;—indeed, it is so plain a mistake, that I was considering the propriety of not noticing it. However, I thought better of drawing attention to the matter, which you will please have the kindness to correct in your next issue.

I have not a number of the *Wexford People* to forward you, in which a fair report appeared, as perhaps the one you copied from you may not have by you.

I am, &c.

P. O'Rourke,

Enniscorthy, November 3. M. O. Enniscorthy Workhouse Infirmary.

The Diplomas of the University of Rostock.

To the Editor of the Medical Times and Gazette.

Sir,—I beg to enclose the translation of a letter which I have just received from the Dean of the Medical Faculty of the University of Rostock, and shall feel obliged if you will give it a place in an early number of your valuable Journal.

I am, &c.

Adolph Rasch, M.D., M.R.C.P. Lond.,

Physician to the Eastern Dispensary of the German Hospital.

7, South-street, Finsbury, E.C., October 30.

"Rostock, October 23, 1862.

"Honoured Sir,—I sincerely thank you for your kind communication, by which the Medical Faculty of this place got acquainted with an article in the *Lancet* of October 11 (page 395).

"That article speaks of an anonymous person who, as 'Correspondent of the University of Rostock,' clandestinely offers to procure diplomata of this University. In the interest of the Germans in England, who will feel offended by such an offer, as well as of such Medical men as might become victims of a fraud, it gives me pleasure to make the following communication, with the wish that you will kindly procure the necessary publicity for it:—

"Our Medical Faculty has, indeed, the privilege of making the *promotio in absentia*, yet, since longer than nine years, no Englishman has been in that way promoted by us, though several applications have reached us from England.

"A 'Correspondent' of the University (or of the Faculty) who could procure Medical diplomata from us exists neither in England nor anywhere else. The acquisition of the degree of 'Doctor' solely depends on the production of the qualifications fixed by law.

"Should Medical diplomata of our Faculty now be offered in England, or, as the article in the *Lancet* seems to imply, really have been sold, they must be forgeries.

"Respectfully yours,

"C. Bergmann. M.D.,

"Professor of Anatomy and Physiology, &c., and

Dean of the Medical Faculty of the University of Rostock.

"To Adolph Rasch, M.D., &c., London."

The Late Graduation at St. Andrews.

To the Editor of the Medical Times and Gazette.

Sir,—Your correspondent of last week, an "M.D. of St. Andrews," seems alarmed for the honour of his degree, on account of the number of men who have lately acquired the same title, and, most selfishly, would have the doors closed upon all comers, unless the very highly educated, who could come up to his ideal of excellence! Pray, let your correspondent remember, that of the 130 gentlemen who lately passed at St. Andrews, the great majority were already members of the Medical Profession,—indeed, I do not think *one* passed who did not already possess a qualification, and many were *doubly* qualified. What, I would like to know, have those men gained who held the Surgeon's diploma of London, or Edinburgh, by this M.D.? Does your correspondent, for a moment, presume to say, that such a diploma as that of Edinburgh, or Dublin, does not indicate a high examination already passed; and that M.D., from any Scottish University, points to a much higher standard of excellence? If such be his belief, I must tell him he is labouring under a delusion. No doubt there are Surgeons, dull and stupid enough, badly educated, ill-informed men; but the best men in my neighbourhood are simply Surgeons. I know M.D.'s (not St. Andrews men) who, I assure you, cannot write a decent note in English,—nay, I know them who cannot spell; and to suppose, because a man holds a degree in Medicine, that he must be superior, in educational acquirements, to his neighbour over the way, he being only a Surgeon, is simply ridiculous.

The truth is, a young man goes to "Guy's," or any other of the London Schools, and finds (unless he has been classically educated) he must content himself with the license of the College and the Hall; while another has went to Edinburgh, and, with less money, taken his degree; a third, meanwhile, may have passed to Aberdeen, or to Anderson's University, Glasgow (the cheapest and one of our best Schools), and, with less money still, finds he can prepare himself for the Hall, and take his diploma, either at Glasgow, Edinburgh, or London. But had any of these young men went to the University of Glasgow for a little more money than is charged at Anderson's Institution, they could have graduated in Medicine at this ancient seat of learning, and so went away armed with this wonderful M.D.! But, probably, they knew little of this until it was too late. In one word, Sir, all sober, thoughtful members of our Profession must admit that the University of St. Andrews has acted wisely, and done well, in granting its degree to Surgeons and Apothecaries already in practice, whose character and acquirements, upon examination, are found worthy; and few, I should think, of the Surgeons of London, Dublin, of Edinburgh, and Glasgow, are not worthy; for I have yet to learn that the examination for M.D. at any of our Scottish Universities is higher than those at Edinburgh, London, Dublin or Glasgow, for a Surgeon's diploma.

When your correspondent proves I am wrong on this point, I will then apologise to him for this letter.

I have educated four young men to the Profession, and know some little about our Medical Schools and Universities, and must, in fairness, say something ought to be done to put an end to this nonsense, if, by M.D., people are made to imply a higher Professional status than that of Surgeon.

I am, &c.

October 27. An Old Student.

To the Editor of the Medical Times and Gazette.

Sir,—Will you allow me space in your Journal for a few remarks on a letter, signed "M.D. St. Andrews," in your issue of the 25th ult.? I happen to be one among the number of successful candidates. The history of my being there arises out of the following circumstances:—At the end of my second year at College, I matriculated at the University of London, first division. The next year and a-half found me qualified as M.R.C.S. and L.S.A. I was induced immediately to enter into partnership with an old Practitioner, resident some ninety miles from London, where I have remained ever since, hard at work—nevertheless, reading whenever opportunity offered. Still, the fond resolve of my early days of being Doctor had not left me. I studied the University of London Calendar, corres-

ponded with the Registrar, and found that the regulations of that inflexible body admitted of no relaxation. It would have been to no purpose that I could urge Hospital Attendance and Lectures during a period of four years. No; only half this period was recognised by the University, because I had not matriculated at the commencement instead of the middle of my curriculum of study. Last year found me reading the notice by which I learned that with 1862 would close the opportunity of my going up for an M.D. examination, without residence, or continued absence from my practice; hence, I resolved to work night and day, if needs be, to accomplish my early resolve. Accordingly, on a fine day in September, I left home, and found myself, after twenty-two hours' journeying, at St. Andrews. What, said I, must an English Medical man undergo such a journey, to such a small town, for the purpose of graduation? Surely, if I had rule in such matters, I would have established in England a thorough good and sensible examination, to which Medical Practitioners and students, if need be, could submit, with creditable results to themselves and benefit to the public; not minding whether, after a good classical and general examination, the four years' professional study had been antecedent or postcedent to that event.

Days rolled on, and the written examinations over, I was ushered into the presence of the five examiners for a *tête à tête* on their special subjects. The questions given by these gentlemen were of a first-rate practical character, of use both to the candidate as well as the public who might need the services of him able to answer them. These questions were on different points to those in the written papers. The bearing of the examiners was decidedly gentlemanly, firm, and showed them *au fait* at their work. I have been nearly nine years in practice, and consider myself capable of forming an opinion of the value of the whole affair. For my part, I feel that I have had a very good examination, after a persevering reading for many months, and that I have as my reward a good diploma. I would most certainly advise men not to put themselves to the painful annoyance of being rejected, because they have foolishly and recklessly essayed on an errand for which they had not properly equipped themselves. Those who fancy that, because they have travelled a long distance to get to St. Andrews, are already in possession of one or more diplomas, and offer the tempting bait that glitters, therefore they will get the degree, will find themselves miserably mistaken. Why, it was matter of chit-chat that a certain Lecturer of a certain London School should say to an inquirer about the examination—"Go, by all means; they will pass any one this year;" but how did the game turn out? The reverse to men of that School, as far as I can ascertain. I shall never forget the countenances of some of the unfortunates; how they had evidently reckoned on the sandy data of false and erroneous opinions about how the degree was to be obtained.

No generally well-informed man will be rejected, I believe; but the man who betrays wanton ignorance on any Professional matter will have a very sharp sifting, and probably rejection. I profess to offer no opinion about very old candidates for the degree. I am, &c.

A. K. C.

P.S.—Several of the candidates possessed the certificate of the University of London Matriculation Examination.

Dr. Fowler's "Medical Vocabulary"—Imputed Plagiarism.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In replying to Dr. Mayne's letter in your Number of the 1st inst., I shall simply announce that I am prepared to prove—

Firstly, by the production of the weekly periodical itself, that "my 'Medical Vocabulary' was first advertised in the Medical press on Saturday, October 27, 1860."

Secondly, by the production of the Medical Journals themselves, I can prove that my work was advertised as "just published," or "now ready," during the month of November, 1860. Moreover, by the production of my publisher's trade subscription list, I can not only prove that the actual day of publication was November 21, 1860, but Mr. Renshaw's memorandum-book will show that he received "the first perfect copy of the work" from the printers a whole fortnight previously—viz., on November 7. Dr. Mayne, however, disbelieves that the terms "subscription to the trade," and "publication in the ordinary sense," are, for all practical purposes, synonymously used. Without attempting to convince Dr. Mayne of his error, I will proceed to inform him that I can otherwise establish the date of publication. I can produce for his inspection the receipts from the booksellers for the copies of my work delivered to them during the month of November, 1860. I can also show him the receipts for the same, dated the same month, from the authorities at the British Museum and Stationers' Hall.

Thirdly. Whether or not Dr. Mayne's "'Expository' Lexicon' was virtually completed in the ninth part on November 7, 1859," or in "the last on September 17, 1860," is perfectly immaterial to my purpose. It is immaterial, although I can prove that the complete work was subscribed to the trade on November 27, 1860, and delivered to the trade on the following day: in the one case just six days after my book was published, and in the other just three weeks after the printers delivered to Mr. Renshaw "the first perfect copy" of my "Medical Vocabulary." For without evasion, equivocation, or mental reservation of any kind, I most strongly reiterate, "on my honour as a man, that neither before nor during the whole period of the compilation of my 'Medical Vocabulary' did I ever see, or in any way refer to, or copy from any part or parts of, Dr. Mayne's 'Expository Lexicon.'" Neither, I repeat, have I ever seen a copy of the first edition of "his smaller work." I feel perfectly confident that amongst the thousands of our body (to a very large number of whom both my person and my character are, I am proud to say, very well known), no gentleman would require from a professional brother any stronger proof of denial than his own asseveration. But as certain detailed circumstances "preclude the possibility of" Dr. Mayne's "belief," I dare him to subpœna me in any court of justice he likes, and I will there, on my oath, repeat what I have now twice stated on my honour.

Fourthly. Never having at any period of my life seen any one of the ten parts of Dr. Mayne's "Expository Lexicon," I must confess my ignorance, until 1860, of the authorship of the little work "published anonymously in 1836." I have, however, yet to learn, both morally and legally, that a work so published vests any "rights of property" to its title in the author who condescends to father it some sixteen years after its birth. But, from the fact of my having adopted for my work, in 1860, the title of a book "published anonymously in 1836," and "which for about twenty years had not even been seen in the market," to thence assert that, therefore, "little doubt can exist as to the rest of the reprehensible proceeding," is an assumption which I defy Dr. Mayne to demonstrate and prove as regards one single word in my "Medical Vocabulary."

Fifthly. He will be, I feel certain, peculiarly gratified to hear that never in my whole life have I been in, or near to, Leeds; and that as yet I have not had the felicity, to my knowledge, of even a glimpse at the physiognomy of Dr. Mayne.

Sixthly, and in conclusion, I not only challenge Dr. Mayne to, but publicly demand, a Court Medical for the investigation of the charges he has so unscrupulously alleged against me. . . . .

I am, &c. Robert Fowler, M.D. Edin.,
Author of "*The* Medical Vocabulary."

145, Bishopsgate-street Without, November 3.

(Copy.)

"356, Strand, November 3, 1862.

"My dear Sir,—In answer to your application, I have to state that the proposal to write the 'Medical Vocabulary' came from me in 1858, and that I was not aware, until the latter part of 1860, that Dr. Mayne was the author of the work published in 1856. Also with reference to the accuracy of your statement, that the remainder of the little book had been sold off cheap, I distinctly recollect that so many copies of the work were, about the time mentioned by you, exposed for sale on a stall at the corner of Walbrook; that, suspecting they had not been honestly obtained, I wrote to the publishers, Messrs. Maclachlan and Stewart, and was informed by them that the sale had their sanction. Yours truly,

"Dr. Fowler." "Henry Renshaw.

[We can insert no more on this matter. It so commonly happens that writers adopt identical subjects and titles, that no charge of plagiarism can be founded thereon.—Ed.]

COMMUNICATIONS have been received from—

Dr. Kealey; Mr. Thomas Wall; Dr. Althaus; Dr. Rolleston; Dr. Childs; M. C. Bernadet; Inspector of Factories; Mr. James Bruce; Mr. Seymour Haden; Glasgow; Chirurgus; Glasgow; Southampton; Torquay; Dr. Whitelaw; M.R.C.S.; An Old King's Man; Crosby Hall; Dr. P. O'Rourke; Mr. C. De Morgan; Dr. Stewart; B. F.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 1, 1862.

BIRTHS.

Births of Boys, 920; Girls, 963; Total, 1883.
Average of 10 corresponding weeks, 1852-61, 1687·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	590	594	1184
Average of the ten years 1852-61	564·3	540·2	1104·5
Average corrected to increased population..	..	..	1215
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	11	13	4	7	8	4
North ..	618,210	2	12	20	4	9	14	8
Central ..	378,058	..	5	16	1	5	5	3
East	571,158	2	21	16	3	2	18	13
South ..	773,175	1	19	29	1	6	13	6
Total.. ..	2,803,989	5	68	94	13	29	58	34

APPOINTMENTS FOR THE WEEK.

November 8. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Medical Society of London, 8½ p.m. Mr. Henry Smith, "The Treatment of Certain Forms of Hæmorrhoidal Tumour and Prolapsus, with the Description of a New Clamp."

11. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Wiblin (Southampton), "Case of Elephantiasis Scroti." Mr. Wm. Smith (Chesterfield), "Case of Poisoning by Oil of Wormwood." Dr. Robert Lee, "Cases of Ovariotomy."

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

13. *Thursday.*

Operations at St. George's, 1 p.m; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

14. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

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ORIGINAL COMMUNICATIONS.

NOTES ON SURGICAL CASES IN EGYPTIAN HOSPITAL PRACTICE.

By J. F. OGILVIE, M.D.,
Surgeon-in-Chief and Director of the Native General Hospital, Alexandria.

Case of Elephantiasis Scroti.

Sheikh A., a Turk, a native of Adalia, in Asia Minor, aged apparently about 40 (for no good Mussulman knows his own age, or, at least, will confess to knowing it, exactly), and a currier by profession, was admitted, on August 4, for a largely developed elephantiasis of the scrotum.

It appears, from the patient's statement, that about thirteen years ago he had begun to suffer from occasional slight inflammatory swelling of the scrotum, accompanied with pain in the loins resembling lumbago, which he attributed to his habit of constantly standing up to his middle in water, when pursuing his occupation of dressing hides. This he was obliged to do, in all states of the weather, which in that district is characterised by extremes of heat and cold. The result appears to have been a gradual slight enlargement of the scrotum.

About four years ago, however, this process of enlargement became very much more rapid, but still not steady nor uniform, attacks of inflammation of increased intensity recurring in the part, each followed by a slight permanent increase in size. The intervals were irregular, but averaged about a fortnight in duration, the attacks generally lasting two or three days. He stated that he had had four children, of whom the youngest was then about three years old, a circumstance which, viewed in connection with the existing condition of the genital organs, illustrates well the progressive rate of increase in the development of the disease in its later stages.

The tumour was of a tolerably symmetrical ovoidal shape, being, however, somewhat smaller at its upper end, and reached about six inches below the knees, impeding locomotion so much by its bulk and position, that the patient was obliged to support the weight by a sort of sling, attached to bands passed over the shoulders. The annexed figure, from a photograph taken shortly after admission, gives a very correct idea of its appearance. So greatly was the poor man distressed and inconvenienced by the burden he had carried for so many years, that he had come from Adalia on purpose to have something done for it if possible, having some vague idea, that among the numerous Frank population of Alexandria, he might find some means of relief. Although distinctly informed at the first visit that the operation involved considerable danger to life, and that it might possibly be necessary to sacrifice the genital organs, he strongly urged me to perform it then and there, and was not a little disappointed when I told him that it was to be deferred for a week, to accustom him a little to the routine of hospital life, and to allow us to take note of his general health and constitutional peculiarities. He had heard of chloroform, and stipulated for its being given him. He proved to be of a well-developed and highly muscular frame, but somewhat flabby, as if he had formerly been much stouter than at present, thick-necked, and evidently prone to determination of blood to the head, and of a rather sulky and phlegmatic disposition. Apart from his present complaint, he had always enjoyed excellent health.

The only preliminary treatment thought requisite consisted in a purge of castor-oil, followed up by a few small doses of hydrargyrum cum creta, with a second small laxative dose of the oil, the afternoon before the operation, which was fixed for August 11, early in the forenoon. When the effects of the last dose were over, he was kept quiet in bed during the night, with the enlarged scrotum propped up with cushions above the level of the body, in order to diminish as much as possible the vascularity of the tissues. To accomplish this end more effectually, it was also kept packed up in blocks of ice from an early hour in the morning.

When the necessary preparations were made, he walked to the operating-room, a very large, airy apartment, and, having settled himself down comfortably, and with the greatest deliberation, on the table, was put under the influence of chloroform. The anæsthetic was not, however, pushed to the full extent usual in large operations, on account of the evidently apoplectic tendency of the patient, and also because its effects seem neither so uniform nor so much under control here as in colder climates: the temperature at the time was about 84° F. The method of administering it employed, was by dropping it slowly over a piece of thin muslin laid loosely over the nose and mouth, after protecting the mucous membrane of the lips and nares by smearing them first with cold cream. First of all, a longitudinal incision, about four inches long, was made on the external aspect of the right side of the scrotum, and cautiously deepened until the tunica vaginalis, which was very much thickened, and cartilaginous, was reached and divided. The testicle was then grasped, and detached from its connexions with the tunica, chiefly by the scissors; the spermatic cord freed by prolonging the external incision upwards towards the external ring, by means of a probe-pointed bistoury, guided by the point of the fore-finger, and both consigned to the care of an assistant. A similar procedure was then effected on the other side. On one side a few drachms of fluid were found in the tunica vaginalis; on the other, a scarcely perceptible quantity, which is an exception to the general rule, the great majority of such cases being complicated with hydrocele; so much so, that not unfrequently the great bulk of the mass is found to consist of fluid. The testicles, as usually happens, were quite sound. The next step of the operation consisted in a circular incision through the skin surrounding the orifice, near the upper end of the tumour, through which the urine escaped, and which was, in fact, the loose skin, covering, in the normal state of the parts, the root of the penis. In the progress of the growth of the tumour, which seemed to consist of hypertrophied cellular tissue of low vitality, this was gradually dragged forwards, first rendering the visible portion of the member shorter and shorter, then coming on a level with its extremity, and concealing it entirely; and, lastly, advancing far beyond it, still drawing the skin after it, like the inverted finger of a glove, so that the glans penis could just be reached at the deep end of the opening by the tip of the fore-finger. A curved incision, having its convexity downwards, and of such a size that its middle point should correspond nearly with the root of the penis, was then made through the sound skin, over the anterior aspect of the attachment of the tumour, and terminating on each side at the upper ends of the incisions already made to liberate the testicles. The flap thus formed having been rapidly dissected up to a distance of three inches, another incision was made, skin deep, along the mesial line, uniting the last and the small circular one already made round the opening in the tumour, after which a strong grooved director was passed between the inverted sheath of the penis, and the penis itself *below*, and the thin layer of diseased cellular tissue *above*, and the latter divided upon it from below upwards. Through the deep fissure thus formed, the penis and its sheath were then drawn upwards, their loose cellular attachments being divided by the scissors; and the latter being re-inverted over the former, a full-sized sound was introduced, and the whole confided to the care of one of the assistants.

The genital organs being thus secured from danger, the lateral flaps were next formed by a curved incision on each side, commencing above at the point where the two former incisions met, and terminating below by meeting the corresponding one of the other side, at the central point of the perineum. This done, the diseased mass was detached from around the root of the penis, and from the upper part of the perineum, mostly by the fingers, with here and there a stroke of the bistoury, this proving, under the circumstances, the most rapid mode of operating, as well as the least dangerous, albeit not, perhaps, the most scientific. To effect the final detachment of the tumour, the point of the left forefinger was placed over the membranous portion of the urethra, now

readily felt by the sound under the finger, a blunt-backed and sharp-pointed amputating knife was guided over the nail, so as to transfix what remained of the attachments, emerging at the central point of the perineum, and an incision carried outwards to the base of the flap on each side. The only further cutting required was in hastily removing some small portions of diseased tissue which had been left adhering to the surface of the perineum, and in forming a sort of pocket, in which to stow away the left testicle, by dissecting further back a portion of the flap on that side, which, it turned out, had by mistake been cut too small to cover it without too much stretching.

Not much blood was lost during the operation; probably, on a rough estimate, about twelve ounces. To restrain hæmorrhage, digital compression was mainly trusted to. Each flap, as it was formed, was coiled up and kept under the fingers of an assistant, protected by compresses soaked in a saturated solution of alum. Bleeding from the smaller arterial branches was arrested by small dossils of lint soaked in the tincture of the perchloride of iron, from the larger by ligatures, of which three were employed during the operation and one immediately after. On the last incision being made, pressure was made over the perineum by compresses soaked in the solution of alum and covered with ice; after which the three flaps were made to meet at the root of the penis, and united to the skin covering it, and to each other, by iron wire sutures. The mass removed weighed forty-three pounds. The time occupied in the operation was thirty-five minutes, and other ten may be allowed for the application of ice and the insertion of the sutures. He felt, as he informed us afterwards, but very little pain, although he was conscious all the time of what was being done to him, and several times uttered groans.

The shock following the operation was very marked, and was counteracted by the administration of wine to the extent of nearly twelve ounces within two hours, which, to one who probably had rarely or never tasted it before, must have proved a pretty efficient stimulus. By an early hour in the afternoon reaction had set in, but the fever which succeeded was mild, and within a week I was enabled to put him on full diet. The sutures were removed one by one during the fifth, sixth, and seventh days.

There was, fortunately, no hernia, a complication of not unfrequent occurrence, and one which adds not a little to the risk of the operation.

The disease did not extend in this case, as it does in many others, to the skin above the level of the os pubis, and only very slightly to the subjacent cellular tissue there; hence it was, probably, that the upper flap healed almost entirely by the first intention. In the other two, this was very partially the case. During the first few days, small portions of cellular tissue, but no skin, sloughed away; abundance of granulations then sprouted up, and small irregular sinuses formed in the perineum. These, however, were quite superficial, and were, most of them, laid open; after which, they, as well as the granulations, exchanged their first flabby and fungous aspect for a florid hue, vigorous action, and a discharge of healthy pus. The wound was very carefully syringed with tepid water twice a day, and dressed, according to its state at the time, with solution of nitrate of silver, zinc, and myrrh lotion, diluted nitric acid, or turpentine, with a slight admixture of kreosote.

The only serious drawback to an otherwise good recovery, was, that the whole skin of the penis sloughed away, which retarded matters a little, but was attended by no ultimate bad effects, further than a rather absurd looking contrast between the brilliant white colour of the new skin of the organ, and the swarthy tint of the general surface. This, as well as a similar appearance in the line of newly formed skin in the perineum, is well brought out in the photograph taken just before the patient's discharge. There remained, on his leaving, a very small angle of the lower part of the wound unhealed; but this was considered so trivial, and the worthy Sheikh was so impatient to get home, and made himself so disagreeable in Hospital, that I thought it better to concede a little, and dismiss him. In less than a week, probably, it closed up entirely. That the sexual organs remained perfect, was evident from the occurrence, more than once during convalescence, of unmistakable indications of virility, which he duly recorded to the Hospital attendants in terms more expressive than refined.

In three weeks he was able, without inconvenience, to walk quietly about the wards; and on October 7, that is, fifty-seven days from the date of the operation, he was discharged. After assuring me, with much unction, that he would remember me daily in his prayers, his last words—thoroughly characteristic of an Oriental—were, "But where is my bucksheesh"!!!

PLURAL BIRTHS IN CONNEXION WITH IDIOCY.

By ARTHUR MITCHELL, A.M., M.D.,

Deputy Commissioner in Lunacy for Scotland,
Corresponding Fellow of the Edinburgh Obstetrical Society, etc.

During the last four years I have had officially to examine and report on a large proportion of all the idiots in Scotland. In the course of my inquiries into the history of each case, from time to time it was stated, that the patient was one of twins. This, indeed, occurred so frequently, that I was at length led to suspect that there might be some connection between plural births and congenital defects of mind. I therefore resolved to investigate the subject with greater care, and to determine with precision how frequently, in a known number of idiots, a twin would appear. Accordingly, regarding each of 494 idiots and imbeciles, coming consecutively under examination during this year,(a) I made the proper inquiries. The result is as follows:—Information so deficient as to be practically *nil*, in 51 cases; information defective on many points, but good on others, in 79 cases. For the purposes of this research, I shall merely deduct the 51, of whom it may be said that nothing is known. This will leave 443, and of these in 11 instances the idiot was twin-born, or, in other words, every fortieth idiot was found to be one of twins. The actual frequency may have been greater than this, and probably is so. It cannot have been less.

Before pronouncing this proportion abnormal or excessive, we must be able to say that the same would not occur in any 443 persons, between the ages of 3 and 50, and selected at hazard. But for the precise determination of this, there are no data in existence, so far as I know. It is true that we possess a large amount of accurate information as to the proportion of twin to single births, and one would

(a) In the counties of Aberdeen, Kincardine, Perth, Fife, Kinross, and Clackmannan, 1861.

imagine that from this we could easily calculate the proportion of the actual population springing from plural to that springing from single conceptions. Such, however, is not the case. The mortality of twin-born children differs so much from that of single-born, that the proportion at birth becomes vastly altered, even within the first ten days. Thus, from the statistics of the Dublin Lying-in Hospital (b), it appears that of twin children 1 in 4·2 did not leave the Hospital in life, while of the single-born this was the case with 1 in 11,—the deaths among the former being nearly three times as frequent as among the latter (c). And there can be no reason for supposing that this greater mortality ends when the stay in Hospital ends. There is, on the contrary, all but a certainty that it is otherwise. It would be sufficient to rest such a belief simply on the fact, that in every class of births in which we find an excess of the still-born, or an excess of mortality immediately after birth, in that class we also find the death-rate maintaining its exceptionally high character, at least through the first two or three years of life. In some cases, as in the illegitimate, this has actually been traced to the seventh year. Even when the class-distinction merely arises out of sex, we find this to be true, for not only are boys more frequently still-born than girls, but they continue to die at a higher proportional rate for some years.

Dr. Collins gives the proportion of twin to single births, as 1 to 62 for Ireland; 1 to 92 for England; 1 to 95 for Scotland; 1 to 95 for France; 1 to 80 for Germany.

His estimate for Ireland has been corroborated by successive investigators, and that for Germany is fully supported by the recent elaborate researches of Ploss (d). For Scotland, however, later statistics show 1 in 83 (e), instead of 1 in 95, and I shall adopt the former (1 in 83), so that the risk of exaggeration may be avoided. This gives us 2 children—twins—out of every 84 children born, or 1 in 42; and, if there were amongst twin children the same proportion of still births, and the same proportional infant mortality as amongst other children, every 42 of the population would give an individual who was one of twins. At first sight, this appears to lead to the conclusion, that there can be no connexion between dual births and idiocy—1 to 40 differing so slightly from 1 to 42. But if we take the different rates of mortality known to us (not extending beyond the first ten or twelve days of life), even by that time, twin children are to others not as 1 to 42, but as 1 to 55; and, if we had the statistics of the further history of these children, there is more than a probability that it would be shown that not more than 1 per cent. of the population was twin-born, if so much. The facts afterwards brought forward in this paper will support this opinion, and lead to the conclusion that, in finding every fortieth idiot one of twins, we have a much higher proportion than holds respecting the general population.

Bnt not only are many idiots themselves twin-born; there appears also to occur among the relatives of such idiots a marked frequency of twin births. Thus, the mother of one of the eleven bore twins twice, his maternal grandmother once, one maternal aunt twice, another once, and a sister once. In the case of a second, the mother of the idiot was herself one of twins, and she bore twins once. Of a third the aunt had borne twins, &c., &c.

Still further, my inquiries lead me to conclude that, even among the relatives of those idiots who are themselves single-born, there occurs an unusually large number of plural births. My notes of the 443 cases, which constitute the field of this inquiry, furnish 29 instances, and this cannot represent the real frequency, for, in the beginning, I did not in every case seek information on this point, nor at the outset was I always careful in noting it, when obtained. The nature of these 29 cases is explained below:—

Occurrence of Twins among the Relatives of those Idiots who were themselves Single-Born.

In case 1, the mother of the idiot was herself a twin, and bore twins twice, and his sister once. 2. The father of the idiot was one of twins. 3. The father of the idiot was one of triplets. 4, 5, 6, 7, 8, 9, 10, and 11. The mother of the idiot bore twins once. 12, 13. The mother of the idiot bore twins twice. 14. The mother of the idiot bore twins twice, and once triplets; she had 21 children in all. 15. The mother and maternal grandmother of the idiot bore each twins once. 16. The mother and maternal grandmother of the idiot bore each twins once, and a maternal aunt twice. 17. The mother and paternal grandmother of the idiot bore each twins once. 18. The mother of the idiot bore twins twice, and the paternal grandmother once. 19. The mother of the idiot and three maternal aunts each bore twins once. 20. The mother of the idiot bore twins once, and a maternal aunt bore twins four times running. 21. The mother and two sisters of the idiot bore each twins once. 22. Two aunts (f) of the idiot had each once twins. 23 and 24. The sister of the idiot had once twins. 25. The sister of the idiot bore once twins, and a brother's wife once. 26. The wife of the idiot's brother bore once twins. 27 and 28. The grandparents of the idiot had once twin children. 29. The grandparents of the idiot had twice twins, and the great grandparents once.

In short, from tolerably full information regarding 443 *idiots, we find that—*

11 *times the idiot was one of twins.*

4 *times one or other parents of the idiot was twin or triplet-born.*

32 *of the* 443 *mothers had borne twins, once, twice, or more frequently.*

43 *of the* 443 *families presented twins, more or less frequently, borne by mother, grandmother, aunt, or sister of the idiot.*

I hardly think that any one will peruse these facts without feeling that some connexion between plural births and idiocy, if not proved, has, at least, been rendered highly probable. I would again point out that these figures necessarily represent an under statement, and that from this they derive additional weight.

When compared with single births, the whole history of plural births is exceptional; they are more fatal to the mother; they represent a larger proportion of dead-born children; the mortality of the offspring in infant life is greater; premature deliveries are more numerous; abnormal presentations and the necessity for instrumental assistance occur more frequently; the children are smaller, and are apt to be unequally developed. All these points of difference are far from indicating vigour; on the contrary, they lead us to anticipate, in twin children, feebleness of constitution and imperfect development. To some of them I beg to direct more particular attention.

I. Parturition is more fatal to the mother in plural than in single births.

Dr. Burns states, that the chance of recovery, in women giving birth to twins, is supposed to be *four* times less than in those who have single children; and Dr. Collins says, (g) that it has been computed that the ordinary proportion of deaths in women giving birth to twins is 1 in 20; whereas, with single children, a death does not occur in nearly five times that number. (h) All statistics, without fail, support this, though they do not always exhibit so wide a difference.

The facts furnished by the Dublin Lying-in Hospital are as follows:—

	Twin births. Deaths.	Single births. Deaths.	Total number of women delivered.
Collins . . .	1 mother in 34·3..	1 in 101·7	16170
McLintock and Hardy	1 ,, 47·5..	1 ,, 103·6	6634
Johnston and Sinclair	1 ,, 39·0..	1 ,, 86·1	13748

The division of the statistics into three groups is important, because, when the same thing is found true in each group, we may safely accept it as pointing to a rule.

II. Plural births are more frequently premature than others:—

Dr. Denman states that "with more than two children women seldom go to the full period of gestation, and even with two there is a great likelihood of a premature birth." All statistics prove the accuracy of this opinion. Thus, again referring to the Dublin Lying-in Hospital reports, we find that, under Dr. Collins, 1 in 9·3 of the plural births were premature, while the same was true of only 1 in 23·8 of the single; and under Dr. Johnston the difference is still more marked, being 1 in 8·9 for the plural, and 1 in 67·6 for the single births.

(b) Pract. Med., Sinclair and Johnston. 1858. Taken from 13,748 deliveries.

(c) This includes the still-born and those who, though born alive, died in Hospital.

(d) Monat. für Geburts, June, 1861.

(e) Simpson's Obstetrical Works, Vol. i., page 852. Edinburgh Maternity Statistics.

(f) In several instances I have omitted to note whether the relatives were paternally or maternally related to the patient.

(g) Collins' Practical Treatise on Midwifery, p. 313.

(h) *Ibid.*, p. 312.

III. Abnormal presentations, and the necessity for instrumental assistance, occur more frequently in twin than single births.

Thus, under Dr. Collins, 16,170 single births gave one preternatural presentation in 40; while among the plural births nearly one-third of all the children (1 in 3·2) presented preternaturally. During the mastership of Dr. Johnston the same thing is observed—of twin children 1 in 16 was a breech presentation, and of single 1 in 52·2; and the arm presented once in 26 of the former, and only once in 321 of the latter. The same statistics (i) show 1 child delivered by forceps out of 16 born in plural cases, and 1 in 67·5 in single; while recourse was had to turning in 1 out of 24 of the first, and in 1 out of 287 of the last. Throughout this paper the comparison is made between such twin and such single deliveries as were all under the care of the same Medical man. This was absolutely necessary, because different men have different views as to the frequency of the necessity for instrumental or other interference, and it would, therefore, have been unjust to have compared twin deliveres under one, with single deliveries under another.

The frequency of instrumental assistance in twin cases does not arise from a large number of the mothers of twins being primaparæ; though such explanation, even if correct, would scarcely influence the importance of the fact as used in the present inquiry. Primaparæ among the mothers of twins cannot be said to be more numerous than they are among uniparous mothers, as the following figures will show:—

DUBLIN LYING-IN HOSPITAL.

Proportion of Primaparæ in Twin and Single Births.

	Twin births.	Single births.
Collins . . .	1 in 3·3	1 in 3·3
Johnston and Sinclair .	1 in 3·2	1 in 3·0
McLintock and Hardy	1 in 3·0	1 in 3·1

IV. Of twin children a larger proportion is dead-born than of single.

This important statement rests upon the most satisfactory evidence. The difference in this respect between the two classes is exhibited in the following table:—

DUBLIN LYING-IN HOSPITAL.

Proportion of Dead-Born to the Whole Number of Children Born.

	In Single births.	In Plural births.
Collins . . .	1 in 16·1	1 in 8·2
Johnston and Sinclair	1 in 14·7	1 in 8·8
McLintock and Hardy	1 in 14·5	1 in 10·0

It appears from this table that the number of still-born children in twin births is sometimes proportionally twice as great as that of the dead-born in single births, and that it is always much higher. It is not within my present object to account for this difference, but to exhibit it as a fact. I have already, however, had occasion to allude to some things which must operate as causes of this excessive mortality, such as the larger number of premature births, and the greater frequency of preternatural and anomalous labours. An examination of the statistics and general literature of this subject leads me to think that Dr. Collins (k) is right when he says that "it may clearly be inferred that the cause of such children being still-born is, in the great majority of instances, owing to circumstances over which the Medical attendant (*i.e.* the Obstetrician) could have no control."

To one peculiarity, however, I must draw attention, because it is of a character which I did not anticipate. I find that the larger proportion of the still-born among twins is made up chiefly of those whose death was either the result of actual labour, or took place immediately before its setting in. The following tables will illustrate this:—

DUBLIN LYING-IN HOSPITAL.

1. *Proportion of Dead-born—not Putrid—to whole Number of Children Born.*

	In single births.	In plural births.
Collins . . .	1 in 29·7	1 in 10·4
Sinclair and Johnston	1 in 30·0	1 in 13·4
McLintock and Hardy	1 in 29·9	1 in 14·6

(i) Under Dr. Johnston's mastership.

(k) Collins' Op. Cit., p. 321.

DUBLIN LYING-IN HOSPITAL.

2. *Proportion of Dead-born—Putrid—to whole Number of Children Born.*

	In single births.	In plural births.
Collins . . .	1 in 31·4	1 in 40·0
Sinclair and Johnston	1 in 28·7	1 in 26·0
McLintock and Hardy	1 in 47·9	1 in 31·6

The first of these tables shows an invariable and great proportional excess of the non-putrid still-born among twin children, but there is no such constancy exhibited in the second table, where we find the still-born, in a state of putridity, sometimes proportionally less among twin children and sometimes proportionally greater. As appears to be always the case, of the still-born who are in a state of putridity there are more female than male children (in the proportion of 5 to 4, which is somewhat above the average); but of the whole number of still-born, the males greatly exceed the females (8 to 5½). This has reference to plural births, which, like single ones, produce generally a larger number of male than female children. In this, however, there is a marked want of constancy, the data furnished by some observers showing an excess of males, while the data supplied by others exhibit a deficit. When all are put together, however, the males exceed the females by a smaller proportion than holds good with regard to single births, or births of all kinds. Thus, 1116 women bearing twins produced 1118 boys and 1114 girls. Sex, therefore, does not probably influence the number of dead-born twin children in any important manner; nor, so far as I have the means of determining, does priority of birth. Of 106 dead-born twin children, as many were first as second-born. Thus:—

DUBLIN LYING-IN HOSPITAL.

	Male.	Female.	Total.
Collins, Johnston, and McLintock, } First-born .	31	22	53
Collins, Johnston, and McLintock, } Second-born	34	19	53

While the ordinary risks from actual labour are probably greater to the first than to the second-born, it would appear that the interval between the deliveries is a source of danger to the second, and one special to it; and, besides, I think it is generally believed that the smaller, and more undeveloped, and less viable child usually presents last.

V. But not only is the death-rate among twins abnormally high before the children are finally separated from their mothers, it also happens that the same excessive mortality is observed during the first week or ten days of extra-uterine life, and there is every reason for believing that it continues for several years.

The following table represents the comparative mortality of those of the two classes of children, who were living-born, up to the date of their removal from the Hospital:—

DUBLIN LYING-IN HOSPITAL.

	Single births.	Twin births.
Collins . . .	1 in 49·0	1 in 7·0
Johnston and Sinclair .	1 ,, 60·0	1 ,, 13·2

It appears from this that the mortality of living-born twin children, before the age of 14 days, is in the first case seven times as high as that of the single-born for the same period, and in the second case nearly five times.

If we add the number of the still-born to that of those who were born alive, but died in the Hospital, then of all the single-born there died in the institution 1 in 11·0 (Collins), or 1 in 12·4 (Johnston); while of the twin-born there died 1 in 4·2 (Collins), or 1 in 5·3 (Johnston), showing a total mortality two to three times greater in the twin than in the single-born.

As bearing on the cause of this high mortality among twin children, and as serving to illustrate their condition at birth, it is worthy of note, that of the 56 living-born, whose death in Hospital Dr. Johnston records, 47 have no other cause of death assigned than that they were puny at birth. This leads me to my next proposition.

VI. Twin children, as a rule, are abnormally small at birth.

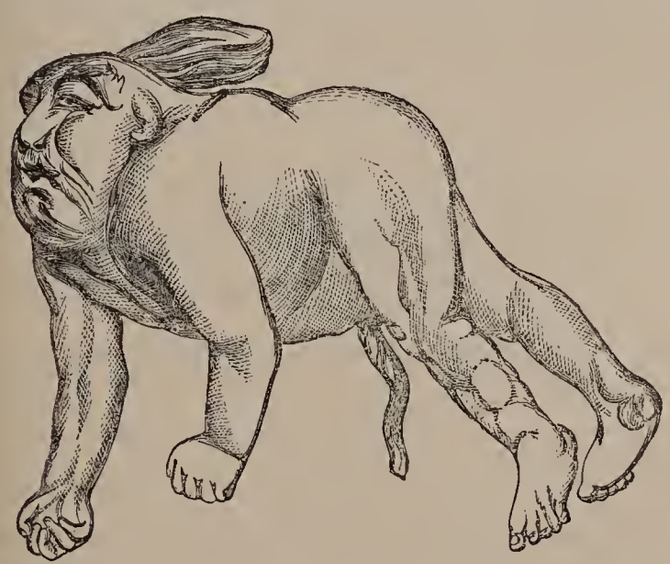
In the Edinburgh Maternity Hospital the average weight of single-born children of both sexes was found to be 6 lb. 13 oz. 7 drachms, while the average weight of twin children was only 6 lb. 1 oz., or, as nearly as possible, ⅛th less. The experience of every Accoucheur will furnish remarkable exceptions to this; but it is with the rule, and not with the exception, that we have to do.

VII. In the case of the cow, the female co-twin with a male is very generally barren.

Professor Simpson has shown that this does not hold good in the human family, though it was long believed to do so. Nevertheless, in the fact, that it is true of any uniparous animal, we see the indication of a tendency to incomplete development in cases of twinning.

VIII. When both children live and have to be nursed by one woman, there is a risk of injury from underfeeding. I do not think that this proposition demands any comment.

The foregoing facts in their aggregate prove, I think, that, when woman ceases to be uniparous, it is to the disadvantage of herself and of her offspring, and especially to the disadvantage of the latter. It is the departure from a design of nature, not seemingly under control, and having a cause which we do not know; but, being a departure, misfortune is the result. Everything in the history of twin children indicates low viability, feeble organisation, and imperfect development; and this, apart from the risk of injury to which they appear to be peculiarly exposed in the act of birth, would lead us to expect among them the frequent occurrence of nervous disorders. In whatever class the condition, during intra-uterine existence or at birth, is unfavourable to life—in that class we are certain to find a prevalence of cerebral disease, accompanied often by physical defects or frailty. That twin children are in this unfavourable condition I think has been established. Woman was clearly intended to bear only one child at a time, and the wider the departure from this intention the more marked is the consequent calamity. If we turn from twins to triplets and quadruplets, we find the proof of this statement. Among them premature births are still more frequent, and the number of dead-born children still greater, and of those who are born alive only a few reach maturity. I know personally only one triplet case, in which all three reached adult life. They are three men born half a century ago, and, curiously, they are all at present living under one roof. One is lame, one has double rupture, and all three are eccentric. In one this eccentricity of late years has been intensified, and is now spoken of as *insanity*. He alone is married, and one of his children is a complete idiot. I know another case in which two of triplets reached maturity. They are both women, and are both married. One is barren, and the other bore two children with spina bifida, and a third anencephalous. The arm presented, and version was performed. In the drawing which follows, it will be seen that spina bifida



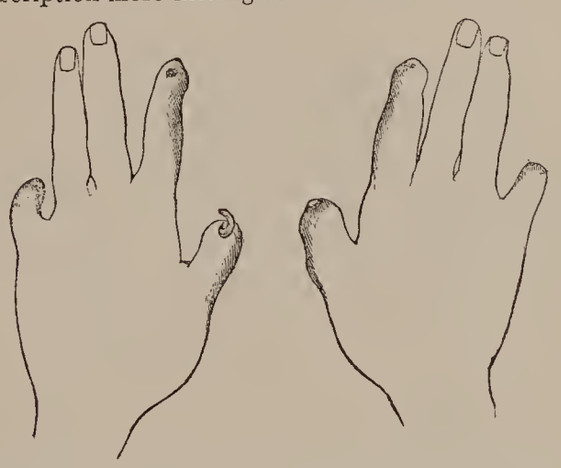
was present in this case also. The mother was a tall, handsome, and intelligent woman, and bore several other children, well-formed, and apparently quite sound both in mind and body.

Plural births have been thought to indicate an excess of reproductive force, and in one sense, perhaps, they may be so regarded. But this is certain, that in families where they occur with frequency, they are often associated with illustrations of a manifest deficiency in the reproductive powers. In many instances I have observed this close alliance between what is held to indicate excess, and what is held to indicate deficiency of reproductive energy. Twinning in the human species, I think, must, at least, be looked on as a misdirection or error in reproduction, and it is doubtful whether in any case it is correctly spoken of as indicating high reproducing qualities. If a woman bears twins or triplets, and if among her single-born children, hare-lip, club-foot, dwarfage, microcephalism, and abortions occur, I scarcely think we can say of that woman, because she bore twins, that the faculty of reproduction in her is strong. It is both strong and weak, apparently excessive at one time, and defective at another; or rather, perhaps, according to the view which I am inclined to take, weak at all times, since an error in any process is practically weakness, whether it lead to overdoing or underdoing in the results; and still more positively is that process weak, which is influenced by a peculiarity tending to overdo now, and to underdo then. The proof of strength and perfection in any process is a good result, steadily produced. The proof of weakness is a bad result, and uncertainty in the character of the badness augments the weakness. True, it may be said, the process in the one case is called weak from attempting too much, and in the other from not attempting enough—in neither case accomplishing the work well: the one, however, being a weakness from excess, and the other from defect, with an essential difference, therefore, in their nature.

The following case will illustrate these remarks:—

J. R., male, aged 24, parents not related, single-born, premature; delivery instrumental; small and puny at birth; did not suck well for some weeks; long of walking; now a complete idiot; dwarfish, but *gracile*; microcephalic; ear and external meatus large; thumbs of both hands bulbous, with last phalanx shortened and nails imperfect; both forefingers shortened, with last phalanx nearly absent, and with rudimentary nails; both little fingers wanting the last and part of the second phalanx, and without nails; these defects observed at birth.

A drawing of both hands is given below, in order to make the description more intelligible.



His mother bore twins, as did also three maternal aunts, and several other more distant relatives. Premature single births have occurred frequently in the history of his mother and her sisters. His mother, his maternal aunts, his brothers and sisters, have all lost the front teeth of the second set at a very early age. They are all spoken of as nervous and excitable. His maternal cousin, single-born, *has six fingers on each hand*. His sister, single-born and dwarfish, is imbecile; and two or three maternal relatives have been under care as lunatics.

We have, thus, in the same family, a frequency of twin births and of abortive single births; we have in the single-born too many and too few fingers; we have dwarfage and microcephalism; we have idiocy and imbecility, as well as insanity supervening in adult life.

If the bearing of twins shows a high reproductive power, the mother of this man and her sisters certainly possess it; and that which, from being high, shows a readiness to attempt two, when confined to one, should scarcely fail to produce a vigorous being. Far otherwise, however, is the fact. The tendency to produce two at a birth appears to increase the risk of unsoundness and defect in the single-born.

Everything, in short, points to a remarkable connexion between twin births and defective organisation. If this be recognised as true, then twin children ought to be treated with peculiar care after birth, and for the first few years of life. The defect may, in many cases, merely consist in a negation of power—a lessened viability—rendering them unable to resist pernicious influences, which would scarcely

affect children more favourably conditioned at birth. Care in the nursing and general management of such cases is clearly desirable, in order to secure, as far as possible, the completion of that development, which may be regarded as probably imperfect at birth. All other aspects of the condition of twin children indicate the same necessity for unusual care.

The fact that persons of very great intellectual and physical vigour are every now and then found to be twin-born, in no way interferes with the soundness of the *general conclusion* to which this research points, and the basis of which may be briefly stated as follows :—

1. Among imbeciles and idiots a much larger proportion is actually found to be twin-born than among the general community.
2. Among the relatives of imbeciles and idiots twinning is also found to be very frequent.
3. In families where twinning is frequent, bodily deformities (of defect and of excess) likewise occur with frequency.
4. The whole history of twin births is exceptional, indicates imperfect development and feeble organisation in the product, and leads us to regard twinning in the human species as a departure from the physiological rule, and, therefore, injurious to all concerned.
5. When we pass from twins to triplets and quadruplets, everything we know regarding these latter gives support to the general conclusion in question.

PROFESSOR PETTENKOFER'S RESEARCHES ON RESPIRATION AND THE CHEMISTRY OF LIFE.

(Continued from page 489.)

We now proceed to describe the course of an experiment as it is made with the respiration apparatus. As soon as the tension of steam in the boiler connected with the apparatus indicates on the manometer three-fourths of, or a whole atmosphere, there is sufficient motive power present. The steam is then allowed to pass from the boiler to the machine, and after the weight of the clockwork has been raised half-way, the engine, the regulation apparatus, and the sucking-cylinders may be left to themselves during the twenty-four hours. It is only necessary to add fresh fuel to the engine from time to time, and to oil it, which may be done by any workman. As soon as the sucking-cylinders have commenced moving, the air in the adjoining room enters through the door of the apparatus, and leaves by the valves described above. The apparatus is left to work for about half-an-hour before the experiment is begun, so that the air in the chamber is thoroughly changed. This time is used for interpolating the globe-apparatus, for filling baryta-water in the tubes, etc. All other parts of the system are examined with regard to air-tightness. The experiment begins as soon as the animal or person to be experimented upon, enters the chamber. That same moment the state of the large gasmeter and of the clock is noted down. At the same time, the bar, by which the sucking-cylinders and the two pumps may be connected, is put into its place, so as to effect a communication between them; and from that instant a fraction of both the air which enters at the door of the chamber, and of that which leaves the chamber through the tube described above, passes through the examination-apparatus, in order to give off all it contains of water, to the globes containing sulphuric acid, and all it contains of carbonic acid, to the tubes containing baryta-water; and this always in the same ratio during the whole time of the experiment.

After the experiment has commenced, the strength of the baryta-water employed is determined. Two specimens of 30 cubic centimetres are taken, and which must not show a difference amounting to one-tenth of a cubic centimetre of the solution of oxalic acid. From that time to the end of the experiment, nothing need be done; since the stoker, the engine, and the several apparatuses do the whole work by themselves. If we wish, however, to know the variations in the quantity of carbonic acid in the air at different times, these may be ascertained by means of a sucking and pressing-pump, by which a specimen of air may be taken out of the tube in which the air passes as it leaves the chamber. In the apparatus containing the moistened pumice-stone, a fresh supply of water must from time to time be added. The degree of moisture in the air may be observed by means of a psychrometer, which is fixed air-tight near the pumice-stone apparatus. The state of the thermometers, both at the large gasmeter and the two small gasmeters, must be read off and noted down every two hours. In the commencement of these investigations, Professor Pettenkofer had this done every ten minutes; but it appeared that the averages are just as correct if only read off every two hours. If the sun is shining in the apartment, the gasmeters must be protected from its rays by thick curtains. The state of the thermometers may be determined by any reliable person, after he has had some practice in it, and has been controlled for some time. If the experiment is to be discontinued, the steam is cut off half-a-minute before. Experience has shown that the movements of the sucking-apparatus continue for half-a-minute after this has been done. At the moment when the current of air in the apparatus is brought to a standstill, the movement of the pumps ceases simultaneously with that of the sucking-cylinders. As soon as this has been done, the time is noted down at which the experiment was finished, and the person or animal who had served for the experiment is allowed to leave the apparatus. The baryta-water is then carefully examined, but this must be done in bright daylight, as the difference between yellow and reddish-brown of the curcuma-paper requires, towards the end of the research, a strong light n order to be minutely ascertained.

It then becomes incumbent to calculate the results of the experiments. The quantities of air which have been measured in the large gas-meter and in the two small gas-meters, must be reduced to an equal temperature and moisture, if we wish to compare them in a correct manner. The thermometric observations made every two hours serve this purpose, and the air may, under these circumstances, be considered saturated with moisture. The two small gas-meters have almost always the same temperature, while the large gas-meter is often much colder, especially in winter, when the difference may amount to from 5° to 6°C., because the moisture apparatus, and the large quantity of water in this meter, are much more slowly brought to the same degree of temperature than the smaller ones. The temperature and the moisture of the large meter require, therefore, to be proportioned to those of the small meters. In order to calculate the influence of the pressure of the vapour upon the volume, it is sufficient to take the mean barometric pressure of the place where the experiments are made, as a standard. Professor Pettenkofer has assumed 715 millimetres for Munich, and calculated how many times $\frac{1}{715}$th of the volume was to be added or substracted. A trifling inaccuracy in the comparative measurement of the specimens of air and of the whole current of air is caused by the circumstance, that the examined air is free from carbonic acid, while the whole quantity of air is measured together with its carbonic acid. This inaccuracy might be corrected by calculation; but calculation, as well as the accuracy of the experiments of control, show that such correction is rendered superfluous by the very trifling nature of the fault.

At first we calculate how many grammes of carbonic acid have been contained in a thousand litres of the air which enters, and a thousand litres of the air which leaves the chamber. The limit of the calculation is $\frac{1}{10}$th of a milligramme, inclusive. If we substract the quantity of carbonic acid of the air which enters, from that found in the air which leaves the chamber, we get a number showing the difference in the quantity of carbonic acid found in every thousand litres of air. It is then ascertained how many litres have passed through the large gasmeter, from which it is easy to calculate how much carbonic acid is contained in it. A special calculation must be made with regard to the contents of the respiration chamber, that is, the air which has entered the apparatus, but has not yet passed the tube on the opposite side of the chamber and the gasmeter. The contents of the chamber is known, and amounts, after substracting the floor and the furniture, to twelve cubic metres, or 12,000 litres. Supposing a certain equality in the evolution of carbonic acid, the quantity of the carbonic acid which has at last been evolved and remained in the chamber, will be proportionate to the carbonic acid in the air which has passed through the large gasmeter, if we calculate a volume smaller by 12,000 litres; for the 12,000 litres which were at first in the chamber tend to diminish the difference in the quantity of carbonic

acid. If, for instance, 500,000 litres have passed through the large gasmeter, and if we have found the difference in the quantity of carbonic acid contained in the inner and outer air, to amount to 500 grammes, we have to find out how much may still be contained in the 12,000 litres of the chamber, if in 500,000, minus 12,000 litres, 500 grammes have been found.

From the differences found between the air that enters and that which leaves the chamber, and the known quantity of the air which remains in it, the amount of *water* generated may just as well be calculated as that of carbonic acid. The amount of hydrogen and pit-gas results from the difference of the quantity of carbonic acid and water in burned and unburned air.

Experiments of Control.—1. *Carbonic Acid.*—All the theoretical considerations and investigations referred to, would not have sufficed to satisfy Professor Pettenkofer as to the accuracy of his method; and he, therefore, from the beginning, endeavoured to find out the errors which might be inherent to it, by experiments of control in a purely practical manner. The best means for this purpose, and which seemed most closely to approach respiration, appeared to be to burn a substance containing a known quantity of carbon during the experiment in the same current of air, and to find out, in how far the amount of carbonic acid which was theoretically calculated would approach that which had been practically determined. A good stearine candle is the most suitable substance for such experiments, as it burns without smoke and soot, if the air is quiet. The stearine candles used for these experiments were, on analysis, found to contain 76·6 per cent. of carbon; the wick does not amount to one per cent. of the weight of the candle; and the fault caused by its containing one-third less of carbon than the same weight of stearine, may be overlooked on account of its insignificance.

In these experiments of control, the lighting of the candle in the chamber was equivalent to the entrance of a living subject in an experiment on respiration. At the moment when the experiment was discontinued, the candle was extinguished. As the candles were weighed before and after the experiment, it was known how much stearine had been consumed; and, from the elementary analysis of the stearine, it was known to how much carbon and carbonic acid the burnt stearine was equivalent. If the experiment was protracted beyond the time of the burning of a single candle, two or more weighed candles were placed in the chamber, which were lighted and extinguished one after the other. This could be effected by means of an aperture in the door, without opening the door of the chamber itself.

(To be continued.)

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.

Physician-Accoucheur to the London Hospital, etc.

(Continued from page 404.)

The following eight transverse cases occurred to me during the year 1840, and the two first months of 1841 :—

Left Shoulder Presentation.

Case 152.—On May 13, 1840, at 1.30 a.m., I was sent for by one of the midwives of the Royal Maternity Charity, to Mrs. P., Bishopsgate, in labour of her fifth child. The membranes broke on the evening of the 11th, after four or five hours' regular labour pains, and the midwife was then sent for. As she could not detect the presentation, and the pains had ceased, she left her, and took no more heed of the case till she was called again at one o'clock on the morning of the 13th; but then, finding a hand external, she immediately sent for me. I found the left hand external, the palm directed backwards, the shoulder completely filling up the brim, and the head lying on the right ilium; the face was, of course, looking towards the spine. There were scarcely any labour-pains; indeed, the uterus had been acting very slightly ever since the membranes broke. I passed my left hand into the uterus (which I always use in preference to the right, in all obstetrical operations within the uterus), grasped the left foot, brought it down, and turned the child without difficulty. The shoulders and head passed readily. The child was alive. The placenta was soon expelled, notwithstanding the previous uterine inaction; and she did well.

Right Shoulder Presentation at Eight Months.

Case 153.—On July 27, 1840, at noon, I was called, by the Apothecary of the Eastern Dispensary, to Mrs. C., a patient of one of the pupils, Sparrow-corner, Minories, in labour of her sixth child, at eight months. The membranes broke on the 23rd, and, like the case just related, the pains ceased as soon as the liquor amnii was evacuated. The uterus did not resume its action till the morning of the 27th, when the hand was forced externally. The Apothecary was first called, and he, not being able to deliver, sent for me. I found the right hand external, the palm towards the pubes, the right shoulder tightly wedged in the pelvic brim, the head lying on the right ilium, with the face anteriorly. Both feet were at the upper part of the vagina; one of them was almost severed from the leg by the efforts that had been made to cause the child to revolve. My predecessor at the case had passed his hand into the uterine cavity, and had brought down the feet as low as I discovered them, and he had made forcible traction at one, until the ankle became dislocated; nevertheless, he could not get the shoulder to recede; indeed, the greater the extractive effort he made, the more strongly did it become wedged in the upper strait of the pelvis. I immediately passed a piece of broad tape round both ankles together; and by pulling at the purchase so obtained with one hand, and at the same time raising the shoulder by pressing strongly against it by the extremities of the fingers of the other hand, I turned the child with the greatest ease possible. The placenta passed immediately, and the woman did well. The child was, of course, dead.

N.B.—Whenever the uterus has been contracting regularly and naturally during the first stage of labour, and ceases to act for some hours after the membranes have broken, provided the child lies so high that the presentation cannot be touched at all, or only with great difficulty, these two circumstances together are highly suspicious of the case being one of transverse presentation. I have, on many occasions, predicted that such would be the case before I have seen the patient, merely from the history furnished to me.

Right Shoulder Presentation.

Case 154.—On August 12, 1840, at 6 a.m., I was sent for by a Professional friend to Mrs. B., Rye-lane, Peckham, in labour of her seventh child. She had been delivered of her first by craniotomy, of another by the forceps, and once before had been the subject of a transverse presentation. The membranes broke at 10 o'clock the evening before, and the pains, which had been strong and frequent previously, ceased from that time entirely. Observing the uterus so inactive, my friend left the room for a little rest; he was called at four, when he found the hand external, and immediately sent for me. I found the right hand protruded considerably out of the vagina, with the palm looking towards the anus, and the head on the left ilium; consequently, the feet were at the posterior part of the uterus. The pains were very trifling. I at once introduced my hand, and turned the child without difficulty, extracting the breech and arms easily; but, as the pelvis did not possess more space in the conjugate diameter at the brim than three inches, the head gave me much trouble. The child was born with animation suspended, but was restored. The placenta passed soon, and the woman did well.

N.B.—This woman, it will be seen, out of seven children, had two transverse presentations. Considering the comparative rarity of these cases (only 1 in every 311 births, as taken from my tables of the Royal Maternity Charity, embracing 68,435 deliveries), this might be looked upon as extraordinary. But, in truth, some women seem to be much more liable to these irregularities than others; and it is worth remark, that in such women the pelvis is generally somewhat distorted at the brim. Thus one, now dead, who always became a patient of the Royal Maternity Charity in her labours, and possessed a small pelvis, out of twelve children, suffered seven transverse presentations. I delivered her under them five times, and my father twice. Another woman, a private patient of my own, whom I attended in all her labours, has had only five children, and four of them presented transversely. This woman's pelvis is also contracted at the brim. Barlow and Denman have both said that transverse cases are more frequent where there is a contracted brim.

Left Elbow and Shoulder Presentation.

Case 155.—November 23, 1840, at 9·30 p.m., a Medical friend called me to Mrs. N., Commercial-road East, in labour

of her tenth child. He arrived at 1 o'clock p.m. Then the uterus was acting strongly, and continued to do so until three, when the membranes broke. The pains then ceased, and my friend could not make out the presentation till the evening, when he felt an elbow in the pelvis. He then sent for his partner, and they both made ineffectual efforts to turn the child. I found the left arm doubled in the vagina, the shoulder at the pelvic brim, the head upon the left ilium, and the face necessarily turned towards the back part of the uterus. The funis was prolapsed, flaccid, and cold. The uterus was acting strongly and expulsively, and this had been the case during the last hour. I introduced my left hand into the uterine cavity, between the contractions, without much difficulty, turned, and extracted the child easily. The placenta was almost immediately expelled. The patient had a rigor about half-an-hour after delivery, but no bad symptoms followed, and she recovered well.

Right Shoulder Presentation, at Seven Months.

Case 156.—On November 29, 1840, at 2·30 p.m., on returning from a case of retained placentæ of twins, I found a message from one of the midwives to the Royal Maternity Charity, requesting me to see Mrs. R., Houndsditch, the mother of a large family. According to the woman's account the membranes broke ten days ago. She had flooded a good deal for six days before that occurrence, but on the evacuation of the liquor amnii the hæmorrhage had ceased. I found the right shoulder at the pelvic brim, the uterus strongly contracted round the child's body, though she had scarcely complained of labour pains, the head lying on the left ilium, the face looking backwards, and the funis prolapsed, not pulsating and cold. The undeveloped state of the cervix uteri, which would not dilate to manipulation, rendered it impossible for me to pass the whole hand into the cavity, so as to seize a foot, without injuring the organ; nevertheless, I hooked a finger in the right ham, brought down the leg, and turned with comparative ease. The breech passed readily, and I got down the arms with little difficulty, but the head gave me considerable trouble, and I could not extract it without introducing a blunt hook into the mouth, and greatly depressing the chin. Directly the child was born a copious gush of blood took place, and I endeavoured to introduce my hand for the purpose of removing the placenta. The still undeveloped cervix resisted my efforts, but I got it away, broken considerably, after much effort; it was firmly adherent throughout a large portion of its extent. This woman had always placed herself under the care of the Royal Maternity Charity in her pregnancies, and it is curious that the placenta had invariably been adherent, at least, in her last few labours. In the last two the hæmorrhage had been so profuse that I thought she would have died each time. She now recovered again without a bad symptom.

N.B.—One chief difficulty in performing the operation of version, when the fœtus is under seven and a-half months, I have found to be owing to the undeveloped condition of the cervix uteri at that period of pregnancy. It will not give way and dilate to the introduction of the hand, as the os uteri at full time generally does, when the cervix is completely expanded, and has, as it were, disappeared.

Right Elbow and Shoulder Presentation.

Case 157.—On January 6, 1841, at 8.30 p.m., I was sent for by one of the Surgeons to the Royal Maternity Charity, to Mrs. F., Long-alley, in labour of her sixth child. Three of her former children had been born dead, and one was a transverse presentation. The membranes broke at 2 p.m. The uterus had acted but feebly since that time. I found the right elbow in the vagina, the shoulder at the brim, the head on the left ilium, with the face looking backwards. The funis was prolapsed, and pulsation could be discovered with difficulty. I at once passed my left hand into the uterus, got down the right foot, turned the child, and delivered easily. It was living; the placenta soon passed; and she did well.

Right Elbow and Shoulder Presentation.

Case 158.—On February 20, 1841, at 6 a.m., I was called by a Medical friend to Mrs. C., Camberwell, in labour of her first child. She fell into labour on the 16th; the uterus acted regularly and well until the same night when the membranes broke; since that time the pains had quite ceased, and no part of the child could be felt till the night of the 19th. I found the right elbow doubled in the vagina, the shoulder at the brim of the pelvis, the head on the left ilium, and the face looking backwards. I detected that the pelvis was contracted at the brim, not possessing more than three inches from pubes to sacrum, if so much. I passed my hand into the uterus, secured both feet, and turned the child without difficulty; the breech passed readily, and I brought down the arms; but I could not deliver the head without perforating it behind the ear, and evacuating a portion of the brain. This I did not hesitate to do, as the child was dead. The placenta passed speedily, and she did well.

Right Shoulder Presentation.

Case 159.—On February 21, 1841, at 5 p.m., I was sent for by two Medical friends to Mrs. D., in Shoreditch, in labour of her sixth child. There was a slightly contracted pelvis. Not one of her children had presented with the head. Four had been breech, and one a transverse, case. The membranes broke twenty-four hours before. The pains had been very trifling after the membranes broke, until 2.20 on the 21st, when the uterus began to act vigorously. I found the head lying on the right ilium, the face looking backwards, and the chest thrust forcibly into the pelvic cavity. My two friends had each tried to turn the child ineffectually; they had, after that, taken off the arm (it was the right), and had perforated the chest; but, as they could not extract any of the viscera, they sent to me. Thinking I could deliver by version, I passed my left hand into the pelvis for that purpose, and felt distinctly an obliquely transverse laceration at the posterior part of the neck and body of the uterus; as I feared to increase this, I did not make any effort to reach either of the feet which lay at the fundus uteri, but hooked my finger in a ham, and passed a blunt hook carefully around it. By means of this instrument I made the fœtus revolve, and delivery was easily accomplished. It was impossible to say when the laceration happened, as there was not a single symptom present leading any of us to infer that such a serious accident had occurred. The placenta did not descend. I again introduced my hand for its removal, and again I felt the laceration most distinctly. She died on the 24th, and, on inspection, we found the rent as I have described it.

N.B.—I think it bad practice to take off the arm in cases where version is found to be difficult or impracticable; because it is not the arm lying in the vagina that prevents the introduction of the hand into the uterus, but the shoulder blocking up the pelvic cavity in a greater or less degree; and because, if exvisceration be determined on, or decapitation, the means of delivering the body by traction, which the arm would have afforded, is lost.

8, Portman-square.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

THE LONDON HOSPITAL.

CASE OF APHONIA—LARYNGOSCOPIC EXAMINATION—SWELLING OF THE VOCAL CORDS—RECOVERY UNDER THE LOCAL APPLICATION OF NITRATE OF SILVER.

The two following cases, treated by Dr. Morell Mackenzie, illustrate the value of local applications to the larynx, when, by means of the laryngoscope, agents can be brought into actual contact with the diseased parts:—

Ellen F., aged 8, when admitted (July 23), was suffering from total loss of voice, which had existed for more than a year. Fifteen months previously the patient had had a severe attack of croup, and the aphonia dated from that period. There was occasional cough, but no pain, irritation, or tenderness. The lungs were sound, and the general health good, the patient being a tolerably robust child, sent up from Essex. Blisters and other treatment had been used without avail in the country. The mucous membrane of the fauces was pale, and the tonsils were not enlarged.

By means of the laryngoscope, the vocal cords were seen to be greatly tumified, and bulging out towards their centres; their edges were rounded, and their colour darkish grey. In this case, a strong solution (℥j. ad ℥j.) of nitrate of silver was applied every other day to the affected parts, and no constitutional treatment was adopted. At the end of ten days, the vocal sounds became louder, and, after a month's perseverance on the same plan, the voice, though harsh, was quite restored. On September 10, the patient was discharged cured.

The principal interest in this case hangs on the extremely rapid restoration of a function that had been entirely in abeyance for more than a year. The tender age of the patient shows that the laryngoscope can be used in very young subjects; and, in this instance, it may be remarked that a thorough inspection of the larynx was accomplished at the first sitting.

LARYNGISMUS STRIDULUS IN AN ADULT—EXAMINATION BY THE LARYNGOSCOPE—INJECTION OF THE UNDER SURFACE OF THE EPIGLOTTIS—LOCAL TREATMENT BY OIL OF TURPENTINE—RECOVERY.

The second case was that of Sarah G., aged 44, admitted June 24, suffering from a kind of laryngismus stridulus, which had been gradually coming on for a month. The general health was good, though the patient was not very strong. She was subject to paroxysms of crowing inspiration, the inspirations being slow and prolonged. There was considerable disphonia, the voice being reduced to the state of a loud articulate whisper. Agitation brought on the attacks, which were also more violent under emotion; nevertheless, the patient did not appear excitable, but, on the contrary, rather phlegmatic. The crowing inspiration was accompanied by a certain amount of dyspnœa, and usually followed by an abundant secretion of frothy mucus. There was no enlargement of the thyroid or cervical glands, nor was there any evidence of aneurism. The case was considered to be one of hysteria, and treatment, based on that view, was adopted. It having been, however, afterwards ascertained that the crowing noise occurred during profound sleep, the original diagnosis was negatived, and a more minute investigation undertaken. The laryngoscope showed that the vocal cords were perfectly healthy, but the under surface of the epiglottis was intensely injected, and the superior ligaments of the larynx were likewise of a bright red colour. The upper surface of the epiglottis and the pharynx were in a normal state, and the follicles generally did not appear diseased.

July 2.—A strong solution of nitrate of silver was applied to the larynx, and repeated every other day for three weeks, without the slightest benefit; the patient's condition, indeed, seemed getting worse, and the attacks were more frequent. Under these circumstances, it was determined to try the effect of the local application of the oil of turpentine. This remedy was first used on July 24, and repeated every other day. The disease showed great obstinacy at first, but gradually the paroxysms became fewer, less violent, and of shorter duration. The colour of the mucous membrane also slowly became paler, and the secretion less abundant. The voice was completely regained. It was not, however, till the middle of September, that the patient was discharged "cured." This case is interesting as showing the essentially reflex character of laryngismus stridulus; for even here, where the larynx itself was in a morbid state, the part which caused the striking feature—the spasmodic action of the vocal cords, which produced the stridulous sound—was itself free from disease. This is, we believe, the first case where turpentine has been applied to the larynx (though the vapour has been inhaled); and it is worth remarking, that whilst it gradually overcame the morbid condition, no irritation or inconvenience attended its use.

WEST LONDON HOSPITAL.

CLINICAL REMARKS ON TWO CASES OF ARREST OF DEVELOPMENT AND DEFORMITY OF THE VOCAL ORGANS IN ADULT DEAF MUTES, EXAMINED WITH THE LARYNGOSCOPE.

(Under the care of Dr. GIBB.)

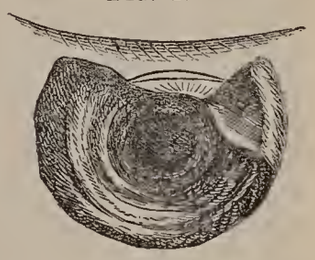
Richard C., aged 54, and Eliza his wife, aged 47, were admitted into the Hospital, under Dr. Gibb's care, for coughs. They were born deaf and dumb, and married three years, without any children; they were intelligent, could read and write, and carried on conversation by means of a slate. They were examined with the laryngoscope by Dr. Gibb in October; and bore the application of the laryngeal mirror tolerably well, particularly the husband, of whom a careful inspection was made.

The epiglottis was seen low down in him, about half its usual length; it lay within the larynx, and was concealed or exposed, according to the action of the right aryteno-epiglottidean fold of mucous membrane, which projected across the glottis, encroaching upon the left side; the left aryteno-epiglottidean fold, and no doubt the arytenoid cartilage of the same side, were wanting; but the mucous membrane dipped into the larynx, where it met the right fold, and thus formed the glottis.

The vocal cords were wholly absent, and the movements of the larynx were chiefly—indeed, for the most part, entirely confined to the right fold of membrane described, which appeared alone to perform opening and closure, as shown in the woodcut. The epiglottis was useless for all practical purposes, and constantly maintained the erect position in the situation which it occupied, being uninfluenced by the act of deglutition with or without food. The right aryteno-epiglottidean fold, in some views of it, formed an apparent cushion, as seen in Fig. 2.

Fig. 1.

Fig. 2.



The parts are reversed in the drawings, as seen with the mirror. In Fig. 1, the epiglottis is shown at the back of the tongue, with the right aryteno-epiglottidean fold extending across to the left side, with the malformed glottis open, through which are noticed the rings of the trachea. In Fig. 2, the action of the fold is shown in closing the glottis, but the apex of the epiglottis is left to indicate its position when the glottis is completely closed. The prominent cushion formed by the middle of the fold is noticed in this figure.

The rings of the trachea could be seen on deep inspiration, and they presented nothing unusual. The tongue was large and thick. The throat looked like a confused jumble of the parts, as if the result of disease about the larynx, but it was clear that the deformity was congenital. Externally, the prominence of the pomum Adami was visible rather sharp, but the thyroid cartilage was considerably flattened and spread out laterally; its base, *i.e.*, the junction with the cricoid, was as large as its upper part. The interval in front, between the hyoid bone and the thyroid cartilage, was much greater than is natural.

The wife at first resisted the examination, and retched a few times, but the parts, nevertheless, were well seen. The epiglottis in her was natural in appearance, shape, and position at the back of the tongue. The formation of the throat generally was good, and the aryteno-epiglottidean folds were natural, and moved well on both sides, readily approximating to close the glottis. The vocal cords were absent, but the folds already mentioned performed the duty of opening and shutting the larynx. The mucous membrane of the fauces was sensitive and somewhat irritable; in both it was congested. The peculiarity in the wife, as differing from the husband, was the possession of a large and wide air-tube commencing at the upper aperture of the larynx, which permitted of a wide and expansive view of the trachea. No doubt on a second or third occasion the bifurcation might be seen very readily. In the husband, on the other hand, expansion of the glottis occurred to the extent of permitting a view only of three or four of the rings of the trachea.

In the peculiar sounds uttered by this couple, those from the husband were more distinct in their imitation of words, doubtless due to the interruption to the exit of air during expiration, caused by the contracted, though deformed glottis.

Clinical Remarks by Dr. Gibb.—The impression seems to be pretty general among physiologists and others, that in deaf-dumbness, the organs of speech are not only present, but complete and perfect in their integrity, and that the dumbness is the result of the congenital deafness, because

the hearing of speech is lost, and, therefore, "nothing further is necessary than to teach them (the deaf and dumb) how to speak to be understood, to read, to write, &c." If these views are correct, then the larynx ought to be healthy and natural in conformation in those born deaf! It is computed that the number of deaf and dumb persons in Europe is about 250,000. Can it be possible that their ears alone are at fault, and their vocal apparatus not so? It seemed to me impossible, and that the laryngoscope might clear up the obscurity which has heretofore prevailed upon this point; and the opportunity was seized of examining the first cases that presented themselves to my notice, with the results already detailed. Mr. Harvey puts the case of the deaf and dumb in its true light, in his work on the "Ear in Health and Disease," when he states that "Dumbness may exist without deafness, as it may be the consequence of some lesion or defect in the organ of speech; but absolute deafness, if it be congenital, or established in early childhood, cannot exist without rendering the sufferer dumb; mutism, in this case, being simply the consequence of an utter ignorance of language; at the same time, a want of the power of speech may coexist with deafness." There can be no doubt that dumbness was present in the great majority of cases of arrest of development and deviation of formation of the larynx which have been placed on record, and probably coincident with deafness in some, although I have been unable at present to lay my hands upon any examples. Children or other persons becoming mute, after having once possessed the power of speech, possess the vocal apparatus in a normal condition, if the dumbness has not resulted from laryngeal disease, but from deafness occurring coincidently. It would not be prudent to come to any conclusion from the examination of a couple of cases; but the inference is strong, that in a great many examples of congenital deaf-dumbness, the true vocal apparatus may be found wanting, or so altered that speech would have been impossible, had even hearing been perfect. I imagine, however, that cases of congenital dumbness, unassociated with deafness, must be extremely rare.

KING'S COLLEGE HOSPITAL.

CASES ILLUSTRATING THE USE OF THE LARYNGOSCOPE.

[Communicated by Dr. Tonge.]

Case 1.—A man, following the occupation of a tailor, applied at King's College Hospital on October 15, as an out-patient, for loss of voice and cough. Twelve months ago he became hoarse, and has now completely lost his voice. Dulness on percussion, and crepitation under left clavicle. No family history of pthisis. Never had syphilis. *Laryngoscopic Examination.*—Epiglottis healthy. True vocal cords completely destroyed, so that the anterior processes of the arytenoid cartilages projected considerably, appearing as if dissected out. On phonation only the posterior part of the glottis was closed, an oblong chink remaining in the situation of the true vocal cords. Unevenness of the edge of the left false vocal cord; right false vocal cord red and somewhat swollen. On the inner surface of the fold of mucuous membrane between the arytenoid cartilages were some whitish yellow projections.

Case 2.—A middle-aged man applied as an out-patient at King's College Hospital on account of hoarseness which had existed for some time. *Laryngoscopic Examination.*—The epiglottis about twice its natural thickness. It is flattened transversely, so that the upper part of its posterior surface is slightly convex from side to side, the convexity being directed backwards. This peculiar condition of the epiglottis rendered it impossible to see more than the posterior fourth of the vocal cords. On the right side of the mucous membrane joining the arytenoid cartilages is a whitish patch, somewhat projecting from the surface, and on the inner side of the right cartilage of Santorini is a white nodule (probably a small tubercle).

Case 3.—W. D., aged 40, has had hoarseness and occasional aphonia for eighteen months. Has had a short cough for the last five weeks, and during the last fortnight has inspired with a whistling noise. No physical signs or family history of pthisis. Had a bubo twenty-three years ago, but no sore. *Laryngoscopic Examination.*—Epiglottis healthy, with the exception of slight œdema. Great redness and swelling of the mucous membrane over the cartilages of Santorini. False vocal cords red, and so much swelled as nearly to meet in the middle line. They scarcely open on inspiration, and completely conceal the true vocal cords. On the upper and inner surface of the left false vocal cord is a small raised ulcer, pear-shaped, with the small end forwards. Ordered steam inhalation, sinapism to throat, and a diaphoretic mixture containing antimony. In a few days the respiration and voice were much improved, and the swelling greatly diminished, so that the right true vocal cord could be seen completely and the left in part. After this he did not come under observation again.

ST. BARTHOLOMEW'S HOSPITAL.

REMOVAL OF A GREAT PART OF THE SCAPULA FOR TUMOUR—CLINICAL REMARKS.

(Under the care of Mr. PAGET.)

On Saturday last, Mr. Paget performed an operation of some rarity—removal of a great part of the scapula.

The patient, a boy, noticed twelve months ago a small tumour, about the size of an egg, in the infra-spinous fossa. He found it by chance, having suffered no inconvenience. It increased, until it attained its present large size. It had never been painful, but had interfered with the movements of the part. The tumour occupied the whole infra-spinous fossa, except the angle. It did not appear to implicate the spine, nor did it extend to the acromion process, nor to the neck. It did not extend to the anterior surface of the bone, as the angle was not lifted up from the chest. It felt fixed, and was, therefore, probably, placed close upon, or implicated, the bone. But it was difficult to tell, being deep-seated and covered by muscles. Mr. Paget said that he should proceed in the operation, first, on the chance that the tumour did not implicate the bone; and, as it was somewhat elastic, he would, although with next to no hope, puncture it with a trocar. If, however, as he expected, he found it implicate the bone, he should remove the whole of the part affected.

Operation.—He made an incision along the posterior border of the scapula, and then carried, in a curve, forwards a little above the tip of the inferior angle. He then turned up the flap, and punctured the tumour with the trocar. No fluid escaped; but some semi-solid matter oozed up through the canula. Finding that the disease was malignant, and that the bone was implicated, he cut away the part forming the floor of the infra-spinous fossa—in fact, leaving only, of the bone below the spine, the inferior angle. Part of the spine, also, he removed.

Mr. Paget remarked on the diagnosis of the nature of the disease before removal, as to what was possible, as well as what was probable. It might have been fibrous, or cartilaginous of the softer form, or hydatid, but, on the whole, he came to the conclusion that it was medullary cancer. The tumour had the ordinary characters of medullary cancer. The skin over it was smooth, it was elastic, globular, and grew from bone. The youth of the patient, also, was in favour of this opinion. Then, again, it has been of only twelve months' growth. It was, therefore, three to one that it was medullary cancer. Still, as it was possible that it might be a simpler form of disease, it was for this possibility considered right to give the boy the chance of the operation. It might seem (Mr. Paget said), that there was little profit to the boy in undergoing so dangerous an operation for the removal of malignant disease. The operation was done in the hope, however slight, that it might not be cancer. He believed that it was cancer, but it was not certain, and this uncertainty was the reason why the operation was performed. The tumour was soft, and had a granular break, and there was the characteristic cancerous juice. . . He hoped that the boy would at least be free from the disease for some time; but there was no reasonable hope that he would live very long.

We shall watch the case with great interest, and give a full report of the boy's further progress.

The Hunterian Museum.—Dr. Wiblin, of Southampton, has just presented to the Council of the Royal College of Surgeons, a wax cast of the case of elephantiasis scroti, operated upon by him, as also the tumour itself, both of which may now be seen in the above Museum.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 15.

THE TWO MURDERS.

On the 20th of September—after a trial of four days—in the course of which a large mass of irrelevant matter was introduced, Jessie McLachlan, a married woman, 28 years of age, was convicted in Glasgow, before Lord Deas, of the murder of Jessie McPherson. The jury were unanimous in their verdict, appended to it no recommendation to mercy, and the judge expressed his full concurrence in the result of the trial. We need do no more here than very briefly recapitulate the chief points established by the evidence brought forward. The murdered woman was servant in the family of a Mr. John Fleming, residing at 17, Sandiford-place, Glasgow. On Friday evening, the 4th of July, the only persons left in the house were the servant and Mr. James Fleming, the father of Mr. John Fleming, who, with his son, usually spent the Saturday and Sunday at Dunoon. James Fleming was an old man, aged 87, and, although naturally the first person suspected, was soon discharged, and was admitted as a witness at the trial. According to the account he gave, he left the servant, Jessie McPherson, in the kitchen when he went to bed, about half-past nine on the Friday night. About four o'clock in the morning, he said, he was awoke by a loud squeal, followed by two other squeals less loud; but, as all was quiet in a minute afterwards, he took no further notice of the disturbance. In the morning, the servant did not make her appearance as usual; and when he went down stairs to her room, on the same flat with the kitchen, he found her door locked, but a window communicating with the area standing open. According to other evidence, the street-door was fastened and the chain up. Notwithstanding all this, he said he had no suspicion that anything amiss had happened, but thought that Jessie had been enticed out by her friends, and constantly looked for her return. He continued to be still unsuspicious, although Saturday and Sunday, and a part of Monday, passed without her returning, and although he noticed spots of blood on some shirts of his which Jessie had washed, and which were hanging upon a horse. Neither does he appear to have been struck at all during all this time by bloody marks about the floor of the kitchen, and other marks indicating a scuffle having taken place there, such as were described by other witnesses. On the Monday afternoon, Mr. John Fleming and his son returned to the house, and, on getting Jessie McPherson's bedroom door opened, she was found lying dead, with marks of repeated violence upon the head and other parts of the body. This was his account of the matter. He appears to have gone out to church on the Sunday, and as usual at other times, and nothing was found at any time, blood-stained, or recently-washed garments, etc., to implicate him in the deed. The most that could be said was, that it was very strange that his suspicions were not aroused. In the course of the trial, indeed, there was a discrepancy discovered in his account of the hour at which, finding the servant did not appear for the purpose, he answered the door to the milkman, with that of the milkman himself; but a similar error was made in his answer to the judge respecting his own age, which he first said was 78, and then, on a second question, 87, giving the date of his birth. Probably he himself gave the true explanation of all these difficulties when he said, "You must remember that a man who is 78 years of age has not so fresh a memory as a younger man." Nor are the observing and inferential faculties so bright. Mental energy declines, activity is replaced by passivity, and the processes of comprehending, judging, and concluding, are, as the infirmity of age advances, more and more tardy, even in the concerns of common sense, and in relation to the events of daily life. If the old man had been guilty of the murder, then we should have a difficulty in comprehending the completeness with which he had succeeded in removing all those traces which must have attached themselves to him personally, leaving others which applied to McLachlan. There was nothing to confirm the tale told by the prisoner after the trial, in which she endeavoured to implicate him in the murder, even if a motive could have been assigned. The grounds on which Jessie McLachlan was convicted of the murder appear to have been chiefly these:—She was formerly a domestic in the Fleming family, along with the murdered woman, and was thus well acquainted with the ways of the house. On the Friday morning she was proved to have been in want of money. She was away all night from her home, having gone out about half-past nine in the evening, and having told a friend that she was about to visit Jessie, assigning, as a reason for going so late, that "the old man went to bed about that time." On the Saturday, she was in possession of money sufficient to pay, in the course of the morning, £6 or £7, which she owed for rent, and at the pawn-shop. This money she had obtained by pawning some plate, which had disappeared from the house of the Flemings. She also had clothes of the murdered woman in her possession, and clothes belonging to herself were discovered stained with blood. On the premises of the Flemings was also found a bottle that had contained rum, similar in all respects to one which had been seen in the prisoner's possession containing rum on the Friday, and which was missing on the Monday.

The Medical evidence established the following points:—1. That there had been inflicted repeated blows, chiefly about the head, but there were cuts of less importance about the arms and hands and other parts of the body. Altogether, there were found about forty wounds, the inference being, that some person of no great strength had committed the murder, and had striven to make sure of the result by that sort of repetition of injury which would not have been needed if a well-directed blow from a strong man's arm had been administered. The most important of these injuries were a wound behind the right ear, dividing the great vessels and injuring the skull, and others dividing the jawbone. It was held that they were inflicted by a blunt-edged instrument; and a cleaver, with marks of blood upon it, was found in the kitchen drawer. 2. Another important coincidence was the discovery of three bloody, naked footprints of a person with a high instep, and these corresponded with the left foot of McLachlan. Dr. McLeod also pointed out other footprints like those of twists of a heel upon the floor, and, in some cases, marks of the ball of the foot. There were no footprints corresponding with that of old Fleming. The same gentleman who thus assisted so materially in the identification of the murderess, also described a trail, which seemed to have been rubbed over from the kitchen where the last-mentioned marks were found, to the bed-room where the body was discovered, as if the bleeding body had been dragged along the lobby by which these rooms communicated. Great credit is

due to this gentleman for the care and acuteness of observation which he manifested. We do not see what reasonable doubt there can remain of the justice of the verdict. We pass over the glaring improbabilities of the tale told by the prisoner after the trial, in which she attempted to reconcile the facts brought out on the trial with the guilt of the elder Fleming.

The case of the woman, Elizabeth Gardner, for the murder of whom her husband, Samuel Gardner, now lies under sentence of death in Newgate, is, to our mind, involved in more obscurity. The persons occupying the house, No. 12, Northumberland-alley, were the deceased and her husband, who was a sweep, and a woman named Elizabeth Humbler, who, though married, lived in Gardner's house as a servant and concubine of the prisoner Gardner. At about eight o'clock on Monday morning, September 15, Mr. Sequeira, a Surgeon, practising in Jewry-street, was fetched into the house by Humbler, who came in an agitated state, and said that Mrs. Gardner had cut her throat. The evidence which he gave at the trial was mainly to the following effect:—The body was lying on the floor, the head close against the door-post, and the feet were lying perfectly straight and parallel with the bed. There was nothing on but a flannel vest and a chemise. "I placed," he said, "my hand on one of the thighs, and found that it was quite cold. The shoulders and upper part of the body were also quite cold; but the lower part of the abdomen was warm, and, in my opinion, she had been dead about four hours. The left hand was placed across the chest, leaning towards the throat, and the right hand was also across the chest, and contained a knife. I noticed, at this time, that there was a sooty impression on the left elbow and the left wrist, and the latter was such as would be made by a finger-mark. I saw, also, that the throat was cut, and there was a pool of blood on both sides of the throat, but there was no blood below the collar-bone. The wound was about two inches and a-quarter in length, and an inch and a-half in depth, and it was deepest near the shoulder on the left side. The wound could not have been inflicted by the deceased with her right hand. The prisoner (Gardner) came into the room while I was there, and the first thing he said was, 'What is this?' and he immediately stooped down, and took the knife from the deceased's hand. It was the same knife now produced. I am sure the prisoner did not touch the body in any way before he took the knife out of the hand of the deceased. The knife came out of the hand quite easily. If the deceased had died with the knife in her hand, the instrument would have been grasped or clenched tightly. The back of the knife was towards the body of the deceased while she was holding it. . . . . I observed that there were a wedding-ring, a brooch, a likeness, some valentines, and some other letters unopened, and every thing in the room was quite orderly. I saw no marks of blood on the person of the woman Humbler; but I noticed that her hands were very dirty, and did not appear to have been washed for some time. A portion of the sheet of the bed appeared to have been dragged down, and was lying under the body. . . . I found several cuts across the fingers of the left hand. There were two on the middle finger, one of which had gone completely through the bone. These wounds appear to me to be such as would have been caused by grasping a knife. There were several cuts upon the right hand, but they were of slight character. There were five cuts on the right hand, and six on the left, and the backs of both hands were both very bloody. On the inside of the right thigh of the deceased there was the impress of the palm of a bloody hand, and pointing downwards. It was the mark of a full-sized hand, larger than my own. The deceased was a thin, spare woman. I am certain that my own hand did not make this mark." On cross-examination he said, "I will give a positive opinion that the body had been dead more than three hours. . . . There is no particular scientific theory with regard to the period at which a body becomes cold after death. . . The death arose from suffocation. The carotid artery was not divided. . . It was possible that the deceased could have screamed after she had received the injury." Two questions had to be decided—first, whether the death was the result of suicide, as suggested by the woman Humbler, or of murder, as suggested by Gardner, the husband? Secondly, who committed it? Gardner accused Humbler. Both were put upon their trial; but, at the direction of the Chief Baron Pollock, a verdict of "Not Guilty" was taken in the instance of Humbler, and, abandoned woman as she assuredly was, she was put into the box as a witness against Gardner. Not that Gardner, even supposing him guiltless of the murder, was very much better, for he is shown to have striven to fix the guilt upon Humbler by manufacturing stains which she alone could be supposed to have made upon the curtains and shutters of the sitting-room. We will take these two questions, then, separately, and see how the evidence told upon the reply. 1. Was it a case of suicide? This was a point mainly to be determined by the Medical evidence. Mr. Sequiera asserted that the wound was not such as could have been inflicted by the woman with her right hand, where the knife was found; and his opinion was confirmed by that of Mr. Cumley. The description of the wound, as given by these gentlemen, and reported in the *Times* newspaper, is so imperfect, that we must be content with this statement as an opinion, the value of which we have no means of determining. Mr. Sequiera said that the carotid artery was not divided, but that the woman died of suffocation. We presume, then, that he meant that the trachea was divided, and that the suffocation arose from the flow of blood into the air-passages. But we are told nothing of the precise situation of the wound, the character of the angles of the incision, nor yet of its direction, all which are most important as connected with this distinction. It was given in evidence that the woman was not left-handed. We think, then, that thus far the Medical evidence failed. Other points which Mr. Sequiera insisted upon as against the idea of suicide, was the loose hold of the knife, which lay with its back towards the body of the deceased, the presence of cuts upon the hands as if produced by grasping the weapon for protection, the impress of a bloody hand upon the right thigh, and the absence of any blood below the collar-bone, such as would have been present if the woman had cut her own throat, as she would probably have done, in the erect posture. These latter points appear to us to be those on which alone any opinion could fairly have been rested that the woman was murdered. Other points were confirmatory of the same conclusion, such as the position of the body, and of the sheet which lay beneath her. 2. Assuming the wounds to have been homicidal and the cause of death—to have been inflicted, as they must have been, while the woman lay upon the floor, by whom was the deed committed? The jury decided that the murder was committed by Gardner, the husband. If that were so, it must have been prior to four o'clock, at which hour he swept the chimneys at Baker's Chop-house; and he was proved, by numerous witnesses, not to have been at home between that hour and the time of the discovery of the murder, about eight o'clock. The length of time that the body had been dead was thus an important item in the proof. Mr. Sequeira positively asserted that death must have occurred at least three hours before he saw the deceased—grounding his opinion upon the coldness of the body. Nothing was said about the rigidity, nor yet about the appearance presented by the blood upon the surface of the floor. This part of the evidence is, again, open to criticism. Mr. Sequeira is reported to have said, in respect to the coldness, that there was no particular scientific theory with regard to the period at which a body becomes cold after death. If this were the case—and for him it was the case—then his opinion was nothing more or less than a guess, in

which it is scarcely possible to conceive that he was not biassed to some extent by the other facts brought out in evidence. But, in making this statement, Mr. Sequeira was certainly in error. There are scientific principles on which he might have grounded a judgment. A dead body cools precisely in accordance with the laws which govern the cooling of other inanimate matter. The circumstances which regulate the rate of cooling are these, mainly:—the original temperature of the body at the time when the heat begins to be lost, the temperature and cooling power of the surrounding atmosphere, the bulk that has to cool, its own conducting power, the free exposure of the body to the cooling influence of the air, or the fact of its being invested by non-conducting substances. Persons who die slowly, and in a lingering manner, undergo, in the very act of death, an algide process, which will render the cooling after death more rapid compared with those who die suddenly, with their full amount of animal heat. Lean persons cool more rapidly than fat ones, in which, from the badly-conducting character of the fat, the interior of the body may retain its warmth so long as thirty hours after death, even when the surface is quite cold. And to apply these principles to the instance before us, it is to be remarked that the deceased was a thin, spare woman, and that the parts found cold by Mr. Sequeira were exposed to the air, both of which circumstances would have tended to accelerate the cooling. An examination of the temperature of the mouth, throat, vagina, and rectum with the thermometer, would also have assisted in placing Mr. Sequeira's opinion upon a firmer and more scientific basis.—"I placed my hand on one of the thighs, and found it was quite cold." Nothing is more deceptive than the sensation of cold and warmth, within ranges near to that of the animal heat. So much depends upon the temperature of the hand itself. The second point which appeared to implicate Gardner was the discovery of sooty marks upon the left elbow and wrist. Surely these are quite explicable by the fact of Gardner passing the night in company with his wife. Had they been made at the time of the murder, similar marks might have been expected to have been found upon other parts of the body, especially about the head and neck, and upon the chemise of the deceased. The third point insisted upon was the mark of a bloody hand upon the right thigh. Doubtless, this was made either by the murderer, or accidentally by Mr. Sequeira himself; the possibility of the latter, notwithstanding his belief to the contrary, should have been admitted in favour of the prisoner. But we have more to say about this. Mr. Sequeira says the mark was that of a full-sized hand; but the sliding of a smaller hand, it must be recollected, might have simulated this, and the description of the mark was not such as to negative this explanation. Besides, there was again an omission in the examination of the mark, which invalidates this point of the evidence. Had the sweep's hand made it,—the hand of the same person who is presumed to have made the sooty marks elsewhere, sooty or carbonaceous matter would have been mixed with the blood-stain; and it was the duty of the Medical examiner to have examined the stain with a lens, or even to have submitted it to a closer investigation under the microscope. In the absence of this proof, we hold that there was nothing in the stain itself to implicate the sweep. We have read over the whole evidence, as given in the *Times* newspaper, most carefully, and we unhesitatingly say, that if, as appears to be the case, the conviction was based mainly upon the Medical evidence, never was a conviction more unjust, each of the points we have referred to being open to damaging criticism. Whoever placed the ring and letters upon the chair beside the bed was most probably the murderer. They were placed there clearly to induce the belief of suicide. Is it likely, again, that Gardner would have taken so much pains to promote the adoption of such an explanation of the death, and then have repudiated it in favour of the idea that a murder had been committed? Humbler was the person who maintained the idea of suicide. There is certainly this against the sweep, that he was convicted of having pointed out to the police officers marks about the furniture and rooms, which were probably made by himself or some other person—possibly the woman that cleaned the body—which were not there when the murder was first discovered, and which he strove to fix upon Humbler. But when we consider the jeopardy in which he himself stood, and his own character, as shown by his relation to Humbler, there can be little wonder that he should have indicated these as additional proofs in favour of his original surmise, that Humbler committed the murder. Such an act should not have told too much in his disparagement. It is the only point in the evidence which was fairly brought home to him. We do not say that this is not compatible with his guilt, but it is equally compatible with his innocence of the crime, and that is what the jury had to try. With respect to Humbler, in our view of the evidence, there were far more damaging circumstances; but as she was acquitted by direction of the judge, in order that justice to the public might not miscarry—that public vengeance might not be defrauded of its victim, we are bound to say no more. We use the reported words of the Chief Baron—"It occurred to him that the two prisoners could not be properly tried together, and that, if such a course were adopted, it was one likely to produce discredit and mischief to the administration of justice." At the close of his summing-up to the jury, adversely to Gardner, he added—"They were, of course, aware that they owed a duty to the accused, but they should not at the same time forget their duty to the public." What would have been the effect had these two propositions been made to change places?

One word in conclusion, and we have done. A woman convicted in Glasgow, upon the best of evidence, and condemned to death, has had her sentence commuted to penal servitude for life, in the face of the opinion of the judge and the absence of any recommendation from the jury. If she were guilty, no one better deserved hanging. Not a single redeeming feature is discoverable in the facts adduced. If she were not guilty, she should have received an unconditional pardon. On the other hand, a man, convicted upon the loosest Medical testimony, now lies in Newgate in the agonies of anticipation of a shameful execution. Is there any principle on which such interferences with the course of justice are grounded? If there be, the public should know something of it. A public trial should, in a free land, alone have its result set aside by a tribunal whose proceedings are equally open to public criticism. We ask again, how is it that McLachlan's sentence is commuted, and a possibly innocent man is still left for death, and this when the jury who tried him commended him to the mercy of the Crown? Is it that Justice has let slip her scale, whilst securing the bandage round her eyes?

THE WEEK.

THE FAMILY OF MR. BRENT.

Dr. Wakley has represented to the magistrate at Bow-street, that some swindlers are going about soliciting subscriptions for the family of the late Deputy-Coroner, Mr. Brent.

ADULTERATION OF MILK.

In the course of the trial, at the Middlesex Sessions, of a man accused of stealing milk, the following dialogue occurred between the prosecutor and the prisoner's counsel:—

"Mr. Ribton: Now, tell me, Mr. Jones, does not the milk undergo some mysterious process by which its quantity is materially increased?

"Witness: By nothing injurious, and only a few quarts of water. Not more than two quarts of water to eighty quarts of milk.

*

"Mr. Ribton: Then do you mean to say that you put nothing into it but water?

"Mr. Jones: Well, besides the water, I put into it a small portion of cheese colouring. Many persons do not like cheese in its natural colour, which is white, and others do not like milk of a natural colour, and so we put into it cheese-colouring."

The prosecutor has evidently added a cipher to the eight, when speaking of the milk, or else he said two instead of ten when speaking of the water. From an eighth to a sixth of water is, we believe, usually added, and a little annatto.

THE WATER IN ST. JAMES'S-PARK.

The Registrar-General has given, in his "Weekly Returns of Births and Deaths in London" for last week, an analysis of the water in St. James's-park, which is stated to contain 70·40 grains of total impurity per gallon, and 10·32 of organic impurity. The Report adds, that the "water has assumed a chocolate colour for some time,—no doubt depending on the large amount of organic matter which it contained." So ends that absurd scheme, which some officious persons foisted on Lord Llanover, of coating the bottom of the pond with cement, so as to make it resemble a shallow saucer. So ends, we hope for ever, the fantastic notion of squandering large sums of money in performing the same job on the Serpentine. No sooner had the water in St. James's-park been let into the present compo basin, than it began to swarm with animal and vegetable life, and large deposits of darkish mud began to be deposited. How could it be otherwise? The water of the Grand Junction Company, carefully filtered and purified, if exposed in a slate cistern, on the top of a high house, to the summer sun and air, soon becomes filled with living organisms; and these, when they perish, form the precipitate which goes by the vulgar name of *mud*. Much more must the water pumped from the soil of a swamp in a bend of the Thames, and exposed without purification in a large shallow basin, where the falling leaves, the dung of water-fowl, and the drainage of adjacent gardens, become impregnated with living germs, and, with their consequences, muddy water. Thanks to the Registrar-General's Report, few persons will now have the audacity of proposing that the compo plan shall be tried on a larger scale upon the Serpentine.

GARIBALDI'S WOUND.

Did ever gun-shot wound excite so much interest, or so much controversy, as Garibaldi's? We do not wonder that the public can make nothing of it. They are completely bewildered with "reports" from English, French, Russian, and Italian Professors, Surgical telegrams, and contradictory letters from special correspondents. First in order comes the report of Professor Partridge, who doubts whether the ball is in the wound; then M. Nélaton's, who believes he can feel it an inch from the surface; next, M. Porta thrusts his little finger "deeply and forcibly" into the orifice, turns it about in every direction, and finds nothing of the kind; at the same time, seventeen Doctors hold a consultation, and, it is unnecessary to add, arrive at the conclusion that nothing is to be done. Then M. Pirogoff finds the distance between the two malleoli is greater on the wounded, by three-quarters of an inch, than on the uninjured side, and thence concludes that the ball is lodged deeply in the inferior tibio-fibular articulation; and, lastly, Mr. Partridge (who was fortunately detained by stress of weather from the consultation of the seventeen Doctors), in a second report, refers the swelling to œdema of the parts about the joint, produced partly by the heroic exploration of M. Porta, and sees no reason for altering his first opinion. Military Surgeons think that civilians have allowed too little for the probable presence of the ball; and, here and there, men of no small experience speculate on the chances of a fatal result, from long uncured compound fracture of the ankle-joint, as contrasted with those after amputation. We believe, however, that most who have seen the patient declare against active interference of any kind. In support of his previously expressed opinion, Mr. Partridge writes:—

"It must be borne in mind that the shot was a large obtusely-conical rifle-bullet, weighing more than an ounce, fired obliquely from below and in front, at a distance of only 150 or 200 paces, which penetrated trousers, boot, and stocking, and broke off, by an obliquely transverse linear fracture, the internal ankle-bone, but without smashing or comminuting it, though the fracture laid open, of necessity, the ankle-joint."

The question is, no doubt, a very difficult one, and does not admit of positive answer; although the want of progress, and the amount of transverse enlargement, may be urged as pretty strong evidence in favour of the presence of the ball. In our next Number we shall return to the subject.

THE FIRST MEETING OF THE ROYAL MEDICO-CHIRURGICAL SOCIETY.

If a thoroughly-filled room were the best test of success, then the first meeting for the season of the Royal Medical and Chirurgical Society, on Tuesday evening, was pre-eminently successful. Yet there were some points which were calculated to give pain to the best friends of the Society. The first paper was by Dr. Wiblin, of Southampton, who gave a straightforward account of his well-known operation in a case of elephantiasis scroti, together with a complete bibliography of the subject. The discussion which followed was rather disappointing. The function of such a society is surely the open discussion of truth, and the bringing into daylight, and testing the validity of all doubts and uncertainties as to treatment. It is well known that rumours have been floating about, to the effect, that the *clamp* which was put upon the tumour to restrain hæmorrhage had been the cause of mischief, by compressing the portion of intestine constituting the irreducible hernia which was concealed within. Now was the time to have brought this matter fairly forward. But, after Professor Fergusson had delivered a few practical remarks on the nature and treatment of such cases, and Mr. Walton had narrated the particulars of one in which he had operated, no one volunteered a question; and it was left for the writer of the paper himself to challenge scrutiny, and to show that the patient's death was due to gangrene of the wound, and not to any alleged pressure. Mr. Wells, who followed, showed that similar gangrene had been a frequent cause of death in other cases, where no clamp had been used. Then followed a paper on "Ovariotomy," by Dr. Robert Lee, which consisted of some very positive denunciations of the operation, which were read, and of a certain quantity of letters, collected from various sources, which the Council has deemed it prudent to suppress. It is a pity that the Council did not carry their suppression a little further. Dr. Lee's allegations were, that the operation of ovariotomy was almost certainly fatal, but that the fatal cases are almost criminally suppressed by the actors, whilst the successful ones are hung out like false lights, to allure other victims to destruction. Dr. Tyler Smith opened the debate by showing that Dr. Lee left out of his account altogether the fact, that women with ovarian diseases at a certain stage are already in danger of life, and that, if some die after operation, all perish most miserably without it. Dr. Tyler Smith stated the proportion of recoveries after his operation as 10 to 14; Mr. Wells gave 28 to 46 as the proportion of his recoveries to operations. Dr. Savage followed with some remarks in favour of the operation, but somehow failed to seize the tone which was agreeable to the Society. Dr. Lee concluded the discussion by a reply, the *substance* of which was, that unsuccessful operations are hushed up, and that operators are tempted by high fees. But what shall we say of the *manner?*—of the shouts and screams of laughter with which every fervid word and gesti-

culation were saluted? If the members laughed heartily at the time, sad enough were they as they went homeward, and said that they hoped never to see so painful an exhibition again at a meeting of the once honoured Royal Medico-Chirurgical Society.

FEES FOR MEDICAL WITNESSES IN POLICE COURTS.

The injustice to which Medical men are subjected in their unpaid attendance as witnesses before magistrates, is an old ground of complaint. A Practitioner may be summoned to give evidence in a case, which, perhaps, he has attended out of pure charity; he may be kept for one or two days away from his practice; and when he applies to the magistrate for remuneration, he is politely told, that there is no fund at the magistrate's disposal for the payment of witnesses. Such cases are of constant occurrence, but it is not every man who would assert his right to payment with the same public spirit that Dr. Williamson showed at the Clerkenwell police-court, on Wednesday, last week. A young woman was brought before the magistrate, Mr. Barker, charged with attempting to commit suicide by taking a large quantity of laudanum. It was proved in evidence, that her life had been saved by the care of Dr. Williamson, of Balls' Pond-road. After the case had been dismissed—

"Dr. Williamson applied to Mr. Barker for his expenses. He stated that, in addition to attending upon the young woman at her residence, he had been twice at this court.

"Mr. Barker said he had no fund at his disposal for the payment of Medical or other witnesses. It sometimes happened that, in very distressing cases, he paid a witness out of the funds that were placed at his disposal to give to the poor.

"Dr. Williamson remarked that it was very hard on Medical men that they should give their time and trouble without any remuneration. If, when they were called to such cases as the present, they refused to attend, they were denounced as brutes.

"Mr. Barker said that Dr. Williamson could write to the Secretary of State, and represent that he (Mr. Barker) had refused the application for expenses on the ground that he had no funds at his disposal for that purpose.

"Dr. Williamson said that he should do so, for the sake of the Profession."

We hope that Dr. Williamson has been successful in his application, and that the publicity given to this case will have the effect of removing an injustice which would not be tolerated by any other class or profession. If medicine were represented in parliament as law is, short work would be made with such exactions.

SEND FOR THE DOCTOR!

We gave an anecdote some time ago of a person who was taken suddenly ill, and whose friends sent out messengers to scour the neighbourhood, and fetch every "doctor" within reach. When two had arrived, a loud rap was heard at the door. "Don't let in no more of them doctors," shouted out a considerate bystander; "we've got enough." Medical Practitioners in "low" districts are so worried by messages at all times of the day and night from persons who have not the slightest intention of paying, that in self-defence they are obliged to demand pre-payment or security. In proportion to their receipts, there is no doubt that more money is lost by the Medical Profession in bad debts than by any other profession or calling. If any censure be implied in the "regret" of the Coroner's jury in the following case, we think it manifestly unjust. The latter part of the verdict contains a good suggestion, which, however, it can hardly be expected parishes will adopt, whilst they employ special Medical officers of their own:—

"On Wednesday, the 5th inst., an inquiry took place before Mr. Walthew, Deputy-coroner, touching the death of Richard Clarke, aged 2 years. Mrs. M. Clarke, 94, Paul-street, Finsbury, said that on Thursday last her son became ill. He had received a fall some time before. On Friday morning, at half-past three o'clock, she noticed the child getting stiff, and her husband ran for Dr. Buss. The Doctor did not come for some time. The delay was occasioned by his getting her husband to sign a paper binding himself to pay 5s. The child was dead when he did come. The witness's husband was a mechanic. Mr. Henry Buss, M.R.C.S., said that at the time in question Mr. Clarke called him up, and told him he was wanted to see the child; but did not say it was dying. Witness said, 'Are you prepared to pay? Have you got 5s.?' The father said he had not, and witness asked him for some security. The witness wrote out the following:—'I promise to pay Dr Buss 5s. for visiting my child.' When the father affixed his mark to the promise, witness went to see the child, whom he found dead. Witness was paid the 5s. on Saturday night. He was obliged to act thus to guard against imposition. He had to live by his profession. Those who could not pay ought to apply to the parish doctor. If a person asked him to go purely as an act of charity he would attend. The deceased died from effusion on the brain. The Coroner, having summed up, remarked that the course pursued by Dr. Buss was not peculiar to that gentleman. The jury returned the following special verdict:—'That the deceased died from effusion of serum on the brain; and the jury desire to express their regret that Medical men should refuse to attend the poor without guaranteed payment. The jury consider that, as such refusals are frequent, the parish authorities should take it upon themselves to pay the fees for first visits of Medical men to poor persons in urgent cases; and the jury are of opinion that such a provision would be the means of saving life.'"

FATAL MISTAKES IN DISPENSING.

The result of the analysis in the Shields case of accidental poisoning, which we lately reported, has left no doubt as to the presence of strychnine in the remainder of the medicine, and in the contents of the alimentary canal. It will be remembered that the body was disinterred by the Coroner's order, and the analysis was entrusted to Mr. Pattinsen, of Newcastle-on-Tyne:—

"The body of Mrs. Gillespie was exhumed in the presence of Dr. Newton, of Newcastle, and several other Medical men, who made a second post-mortem examination. Portions of the viscera were placed in jars and sealed, and delivered to Mr. Pattinsen. Some of the medicine was subsequently administered to two rabbits, half an ounce to one, and about forty drops to the other. The first died of tetanic convulsions in two minutes, and the other, in a similar manner, in five minutes; and a drop of an acidulated solution of the residue from the stomach and duodenum, brought in contact with the skin of a young frog, produced violent convulsions. Three or four additional drops were applied, with intermissions, and it died at the expiration of half an hour. As the result of the analysis, experiments with portions of the stomach and duodenum of the deceased showed the strychnine colours distinctly. At the adjourned inquest, Dr. Newton made an elaborate report to the Coroner's court. He said that the post-mortem appearances were not inconsistent with poisoning by strychnia, and that there was strychnia in the body, and strychnia in the mixture. Dr William Murray, Demonstrator of Anatomy at Neville Hall, Newcastle, expressed the same opinion. Dr. Fenwick made a lengthened statement on oath, to show that the appearance of the lungs was such as to warrant him in giving the certificate that the deceased had died from the effects of congestion of the lungs. If the death of Mrs. Gillespie had arisen from strychnine from a bottle, sent by mistake from his surgery, he said he could only account for it by the fact, that one of his dispensers must have mistaken a bottle containing that poison in solution for a bottle containing a solution of antimony. Both bottles were marked 'Poison.' The prescription Dr. Fenwick sent to the surgery to be made up for Mrs. Gillespie on October 10 was as follows:—2 grains of tartar emetic, 1 oz. of Epsom salts, sufficient spirit colour to colour the mixture, and 8 oz. of water."

There can be no doubt that the post-mortem appearances justified Dr. Fenwick in giving the certificate of pulmonary congestion and bronchitis as the cause of death at a time when no question of poisoning had been raised. The following is the description given by Dr. Newton of the condition

of the right lung, which had been removed by Dr. Fenwick, at the first examination:—

"It was immersed in methylated spirits of wine. It had attached to it a portion of the trachea, and the left as well as the right bronchi. It appeared to have been examined. I found several of the secondary and tertiary divisions of the bronchial tubes or air passages filled with partially coagulated matter resembling blood. In some of the tubes this kind of coagulum was traced into the smaller ramifications of the air passages, and appeared to be connected with the gorged lung tissue. In the substance of the middle and left lobes or divisions of the lung, there were spots of fluid blood, and these lobes, particularly the lowest, were highly congested."

Before seeing the verdict of the jury, we must abstain from founding any remarks upon a merely probable conclusion; but we are bound to observe, that nothing can justify the keeping such a drug as solution of strychnia in a bottle or in a situation where it could possibly be confounded, by the most ignorant or careless dispensing assistant, with antimonial wine. The progress of pharmaceutical chemistry has introduced the employment of substances of far greater power and activity than those formerly employed: it is not only, therefore, incumbent on principals, whether they be Medical men or chemists, that the qualifications of dispensers should be more carefully ascertained, but that their practice should be more strictly supervised. Examinations in proficiency may protect the public from ignorance, but no examination will afford a safeguard against culpable negligence. Since the occurrence at Shields, a woman at Cardiff has been poisoned by extract of aconite, dispensed instead of extract of wormwood. It will be seen that the Coroner and jury took the most lenient view of the case which the circumstances admitted. Surely, public safety requires that in all surgeries and chemists' shops such dangerous substances as the vegetable alkaloids, and the more active metallic and vegetable poisons, should be kept apart from the ordinary drugs under lock and key. The punishment in these cases is not equally meted:—a druggist's assistant gets off with a reprimand from a Coroner's jury—a Medical officer in the army has been broken and ruined for a similar mistake. The following are the particulars of the Cardiff case:

"On Wednesday, the 5th inst, an inquest was held at Cardiff on the wife of Henrich Kegebein, of the firm of Kegebein and Beym, ship-chandlers, who had died the previous day from the effects of poison accidentally administered in medicine supplied from the shop of Mr. Franz Carle Reinecke. It appeared that deceased ordered a bottle of sarsaparilla and a box of strong purgative pills from Mr. Albert Reinecke, the chemist's brother and assistant, who prepared the pills, as he thought at the time, with one grain of calomel, one grain of scammony, one grain of extract of wormwood, and one grain of powdered root of marshmallows. Deceased took the pills about 11 o'clock on Tuesday morning, complained of illness early in the afternoon, and expired about 4 o'clock, with every appearance of having died from the effects of poison. The post-mortem examination proved that death resulted from poison; and at the inquest Albert Reinecke confessed that he used extract of aconite instead of absinthe in preparing the medicine. The Coroner, in summing up the evidence, said there was no doubt at all as to the cause of deceased's death, and the jury had to decide what amount of blame, in their opinion, was attached to Albert Reinecke, for there was nothing at all against the chemist himself. There was no pretence for saying that the poison was used otherwise than in error; and the only question was, whether the carelessness amounted to a crime, or was merely censurable. If it were reckless carelessness it might amount to manslaughter, but this did not appear to the Coroner to be such a case as that. From the evidence, and from the manner in which Messrs. Reinecke had given their evidence, it rather seemed to be one of those deplorable accidents which might sometimes happen in the case of a well-qualified man. The jury consulted for nearly a couple of hours, and at midnight returned a verdict of 'Accidental death,' accompanied with a censure upon the brothers Reinecke, and a caution as to their future carefulness in preparing medicines."

CLUB PRACTICE IN MELBOURNE.

We learn, from the *Australian Medical Journal*, that the Profession in Melbourne are in arms against the abuses of the club system of Medical attendance, imported with the social institution of the benefit club from the old country. No doubt this system is abused at home, but, if our witness is to be credited, to nothing like the extent that it is in the colony of Victoria. The subject was recently discussed at a meeting of the Medical Society in Melbourne; and at that meeting Mr. Lloyd asserted, that not only had persons of wealthy means availed themselves of this connexion with clubs to escape payment of Medical fees, but that "he knew at least two members of the Legislative Council who had done this." No wonder, then, that the Profession held an indignation assembly. The first thing which it appeared desirable to get rid of was the practice of tendering for Medical services. Two resolutions were adopted:—"1. That the meeting is of opinion that the practice of tendering for Medical services is contrary to the dignity of the Profession. That by making these services marketable, a spirit of competition is thereby evoked unfavourable to the maintenance of those relations which should exist between Medical men. That it lowers the value attached to Medical skill; and that it admits to a participation in the services so obtained persons whose conditions in life would enable them to pay the ordinary Medical fees without inconvenience. This meeting, therefore, without pretending to dictate to benefit societies, or to the public, the particular mode in which they should obtain Medical attendance, desires simply to record its objections, as herein set forth, to the continuance of the present system. 2. That as it has become necessary to counteract the bad effects of sundry customs now in vogue lowering the healing art in our estimation, it be resolved to memorialise the Senate of the University of Melbourne and the Directory of the Melbourne Hospital, to pass bye-laws interdicting the Medical graduate of the one, and the Medical staff of the other, from proferring their Professional services in any way unbecoming the character of members of a liberal Profession."

NEW PAMPHLETS. (a)

We believe that few persons in England will care much about the dispute as to priority between Drs. Türck and Czermak. The latter has never claimed to be the inventor of the laryngoscope: he only asserts that he is the author of certain modifications and improvements, that he has applied the instrument extensively to the investigation of diseases, and has made its use generally known. All this is unquestionably true, and is not in any way irreconcilable with Dr. Türck's statement. Dr. Türck's pamphlet, entitled "Clinical Researches on Different Diseases of the Larynx, Trachea, and Pharynx, examined by the Laryngoscope," if we except the introduction, which is a dreary recapitulation of the progress and grounds of quarrel between himself and Professor Czermak, is useful. It contains a number of well observed cases, and some good practical directions for the employment of the instrument. Mr. Arthur E. T. Longhurst's little work on the "Diet of the European Soldier in India, with the Effects of Tobacco Smoking upon the Animal Economy,"

(a) "Clinical Researches on Different Diseases of the Larynx, Trachea, and Pharynx, Examined by the Laryngoscope." By Dr. Lewis Türck, Physician to the General Hospital at Vienna. London: Williams and Norgate.

"The Dict of the European Soldier in India, with the Effects of Tobacco Smoking upon the Animal Economy." By Arthur E. T. Longhurst, M.R.C.S., etc., Assistant-Surgeon H.M. 13th Light Infantry, Calcutta. R. C. Lepage and Co. 1862.

"An Introductory Address on the Future of St. Thomas's Hospital." By John Syer Bristowe, M.D Lond. London. 1862.

"On the Place of Medicine among the Sciences: an Introductory Lecture." By W. Roberts, B.A., M.D. Lond., etc. Manchester: Kelly. 1862.

"On the Pathological Elements of General Paresis, or Paresifying Mental Disease (Paralysie Générale)." By Ernst Saloman, M.D. Translated from the original Swedish by W. D. Moore, M.D., T.C.D., etc. Reprinted from the "Journal of Mental Science," October, 1862. London. 1862.

gives some good dietetic hints, and is, generally speaking, inoffensive. As usual, however, the chapter against tobacco-smoking consists of mere assertion. One case only is given,—that of a soldier who smoked frequently during the day, and got an attack of dyspepsia. To say that the moderate use of tobacco necessarily enervates either mind or body, is to make an assertion which all history proves to be false. Were Cromwell and his Ironsides enervated? A full abstract of Dr. Bristowe's Introductory Address on the "Future of St. Thomas's Hospital" having appeared in our pages, it will be unnecessary for us to say more than that he has stated the arguments for an urban Hospital well, although probably not a few of his hearers were unconvinced by them. It may be *expedient* to build St. Thomas's again in the City, and expediency may decide the question, but to tell us that, *cæteris paribus*, the Borough is as healthy as the hills of Surrey or Kent, and that the wounded and sick will do as well in one locality as the other, is simply, in our opinion, to contradict universal experience. Dr. W. Roberts' Introductory Address at the opening of the Manchester Medical School, is exceptional amongst "Introductories," for it does not contain any of the "common-places" and truisms which form the staple ingredient in these productions. It evidences a clear and philosophical appreciation of the place and relationship of Medicine to the other sciences, but especially affords a just estimate of the value and present position of the therapeutical part of the science. Dr. Roberts shows the thorough rationality of the "adjuvant" treatment of disease, whether it be interference on the part of the Practitioner by physical or by chemical means in those vital processes, of which, nevertheless, he knows little more than the ultimate results. Nearly all Surgical practice, and much of Medical treatment, consist of the application of mechanics in therapeutics. Adjuvant treatment, based on chemical considerations, can only follow an improved understanding of the processes of organic chemistry. Whilst on the subject of adjuvant chemical treatment, the author introduces an account of his observations on the possibility of dissolving uric acid calculi within the body:

"In this connection I may be permitted to refer to a problem which has occupied much of my own thoughts and labours. It is an example of a genuinely adjuvant treatment, although at first sight it might appear something more, deduced from chemical considerations—I mean the possibility of dissolving uric acid calculi within the body in a certain select class of cases. The chemical and clinical facts on which I think myself justified in emitting the opinion that this is a feasible project are: 1. Experimental proof, under my own hand, that if a solution of carbonate of potash, containing about forty grains to the pint, be passed over a uric acid calculus, at the rate of six pints per day, at blood heat, a dissolution will take place, in a stone weighing a couple of drachms, of from eight to fifteen grains daily. 2. Clinical proof, from my own observations, that by the administration of acetate or citrate of potash at short intervals, and sufficiently diluted, the urine may be made alkaline to the requisite degree, and flow in the requisite volume: proof, also, that this treatment may be persisted in without the smallest ill effects for several weeks, and even for three months, continuously. The problem is, however, by no means settled on these comparatively easy terms. It is found practically that an even flow of urine, and an even degree of alkalescence, are impossible to be obtained even with a most rigid exactitude in the administration of the solvent. It is also found, that if the urine be ammoniacal, beyond a very slight degree—and this is very frequently the case in vesical calculus—the treatment is wholly inoperative, from the precipitation of the triple phosphate on the surface of the stone. On the other hand, my experience has demonstrated, that a urine alkaline from fixed alkali alone, determines no phosphatic deposit on the surface of the stone, and that the opinion of Civiale on that point is erroneous. My experience has also proved, in a positive manner, that dissolution does take place in the bladder under the terms of the problem; and although I have not myself yet succeeded in dissolving away a vesical calculus in this manner, there are proofs in the literature of the subject, which are conclusive, to my mind at least, that this has been accomplished. This treatment has fallen into disuse, and even into contempt, first, because its advocates have claimed infinitely too much for it; and secondly, because the conditions of its application and an approximate estimate of its speed had never, until now, been, even roughly, ascertained."

The translation of Dr. Ernst Salomon's "Pathological Elements of Paresifying Mental Disease," by Dr. W. D. Moore, of Dublin, is a valuable contribution to the literature of general paralysis. The anatomical pathology of the disease as given by Dr. Salomon coincides, generally, with that taught by the Vienna school. He divides the disease into four stages: 1. The stage of mental alteration which is the result of chronic lepto-meningitis. 2. A stage of mental alienation produced by chronic diffused periencephalitis. 3. The stage of dementia, coincident with marasmus of the cortical substance. 4. The stage of amentia dependent on true atrophy of the cortical substance of the brain. He traces an analogy between diffuse periencephalitis (general paresis), and diffuse nephritis (*morbus Brightii*): "The former is anatomically characterised by a degeneration in the tissue of the cortical substance of the brain, destroying the nerve-tubes and nerve-cells. Clinically, it is characterised by a profound alteration in the function of the cortical substance of the brain. The latter is anatomically characterised by a degeneration of the tissue of the kidney, and by alteration in the urinary canals and malpighian bodies. Clinically, it is characterised by a profound change in the function of the kidneys. In both diseases we observe stages of hyperæmia, increase of volume, degeneration (softening), and atrophy." The chapters on the symptomatic pathology and differential diagnosis of the disease afford ample evidence of minute and extended clinical study.

A LIVE GORILLA IN ENGLAND.

The African mail steamer *Armenian*, which has arrived at Liverpool, has brought to that port a fine young male gorilla, about three and a-half feet in height. He is, to a certain extent, domesticated, and is said to be quite docile. He is said to relish a mixed animal diet.

SIR BENJAMIN BRODIE.

Having in our last number completed a review of Brodie's literary and scientific labours, we this week fulfil the promise made to our readers by furnishing them with a sketch of his personal history. The following memoir, written by one who knew Sir Benjamin Brodie intimately, will be read with lively interest by those who venerate—and who amongst us do not?—the memory of the great Surgeon and philosopher:—

The life of a successful Professional man seldom presents incidents exciting enough to interest the world at large: the very success which he has attained compels him to observe a certain routine, in which there is little variation from day to day. It is, however, a matter of great interest, especially to young men, to trace the means by which this success was won, the qualities and talents requisite for it, and the advantages which were derived from outward circumstances.

In following the course of Brodie's life, it would be an error to ignore that his great talents and sterling qualities were strengthened by the society and friendship of good and wise men with whom he had the good fortune to associate.

Born and educated at Winterslow, a small village six miles from Salisbury, Brodie never left his father's roof until he was sent to London in 1801. His grandfather, who was of the family of Brodie of Brodie, and a staunch Jacobite, had left his native place in Banffshire to take refuge from political troubles in London. The father was a man of much ability and learning, and was educated first at the Charter House, and afterwards at Worcester College, Oxford. As a boy he had found favour with the first Lord Holland, and

much of his time was spent in Holland House. He was a very good scholar, an energetie and active man, and of liberal opinions. It happened that the second Lord Holland bought an estate at Winterslow, and to this place Brodie's father removed, renting a house not far from Lord Holland's grounds. They were thus very much together, and great intimacy seems to have existed between them. Mr. Brodie had already taken holy orders; and, through the kindness of his patron, he was, in course of time, presented to the living of Winterslow. Here his fourth child, Benjamin, was born, in 1783.

It must have been with some regret that the father found that he was eompelled to edueate his children himself. This home-edueation, however, proved to have advantages which might not have been found in a publie school. Not having many companions, Brodie must have been thrown on his own resources in the hours when he was not oeeupied with his books. He was thus early led to form a habit of refleetion, which was much eneouraged by his solitary walks in Lord Holland's park, and his rambles over the Wiltshire Downs. The order of the day was to rise at six, to work for two hours until breakfast; after breakfast he studied till one o'cloek, and again from four to six. His father made him pay great attention to English literature, and made him learn by heart a great deal of poetry; from which fund of entertainment, in later days, he used to while away the tedious hours, when travelling at night from London to his patients in the eountry.

That there were disadvantages from his always living at home there ean be no doubt; but these were much diminished by the soeiety of talented men, who used to come and stay at the house. His eousins often eame on a visit of some length; and among them were Lord Denman, Sir George Staunton, and Dr. Baillie. Among his earliest friends were Mr., afterwards Dr. Maton, who was an eminent Practitioner in London; Mr., afterwards Sir John Stoddart; and Mr. Wray, of the Chaneery Bar. It is worth while mentioning, that when a panic arose about a Freneh invasion, his two elder brothers and himself (he was then only 14 years of age) showed mueh energy in raising a company of volunteers; and they received eommissions as eaptain, lieutenant, and ensign, drawing pay for each day of exereise.

It is very usual, in giving an account of the boyhood of an eminent man, to foist stories on the public, showing some natural bias towards that profession which he adopted; but with respeet to his early days, Brodie himself used to say that his experiments were confined to an attempt to fix feathers on a frame of alder wood. Before he went to London, however, he had studied some ehemieal works, and knew Lavoisier's Chemistry by heart. He had fitted up a laboratory with sueh materials as he eould afford, and an interleaved copy of Lavoisier's work still exists with his manuseript notes.

When he was eighteen years of age, Brodie followed his eldest brother to London. His father had left the choiee of profession to him, but had no doubt forwarded his natural inelination in sueh a way as to lead him to choose that profession for whieh he proved himself to be so well qualified. It is easy to sympathise with the feelings of a young man coming away from his father's house for the first time. He was very shy, had but little knowledge of the world, and had he not had very good friends in London, he must have suffered, as many have suffered, from want of genial soeiety during his leisure hours.

The students with whom he was obliged to assoeiate had not, probably, received so good an edueation as he had. Happily for the Medical Profession, students of the present day stand mueh higher in that respect than those whom Brodie met in the dissecting-room of Windmill-street. The first lectures he attended were some given by Mr. Abernethy on Surgery. Admirable though these lectures were, Brodie seems to have reaped little benefit from them, owing to his defieient knowledge of anatomy. But by the veneration which the leeturer inspired in his pupils, Brodie was led to adopt Abernethy's department of the Profession as his own. In these first days of study in London he made but two friends, Crawford, nephew of the Crawford who wrote on Animal Heat, and Lawrence, the eminent Surgeon.

But though he made few aequaintances in his own Profession, he made many elsewhere. His eldest brother had entered at the Temple, and the two lodged together in Carey-street. Brodie used often to aeknowledge with much pleasure the advantages he had derived from the society of the lawyers with whom he then became acquainted.

There existed, at that time, in London, a sort of debating elub, where literary and other subjects were discussed. To this society (whieh went by the name of the Academical Society) young Brodie was admitted, and here he had the opportunity of becoming acquainted with Lord Glenelg, Bowdler, Sir Henry Ellis, and Lord Campbell. Among his other friends may be mentioned Denman, Merivale, Stoddart, Gifford, Maton, and Bateman, now well known for his work on Cutaneous Diseases.

It was in the winter of 1802, that Brodie attended Mr. Wilson's leetures, in Windmill-street; and in the spring of the following year he entered as a pupil at St. George's Hospital, under Mr., afterwards Sir Everard Home.

Hitherto, he had found the study of his Profession uninteresting and even repugnant to his feelings. Anatomy was to him then a subject which seemed dry in eomparison with those pursuits in which he had been engaged at Winterslow. It was only a strong sense of the duty to make himself independent of others' support that had enabled him to persevere. But when he entered the wards of the Hospital, and began to study disease, Brodie beeame intensely interested. He soon learnt the value of taking notes, and from that time he entered daily the heads of those eases he saw in the Hospital, enlarging his notes in the evening. He has left behind him seven thick volumes of cases, some of which were taken in the earliest days of his studentship. They were bound up as they aceumulated, and a eopious index is added to each volume. His memory of these cases was something marvellous. He could reeall, in late years, not only the name of the patient, but the date at whieh the case had come under his notice; and he never advanced an opinion without the authority of some ease which had fallen under his own observation.

His time was now divided between the dissecting-room and the Hospital. In the evenings he used to read some Latin classie, or a novel borrowed from a small eirculating library, or he took a walk in the fields where Regent's Park now stands, or sauntered in Kensington Gardens, and listened to the nightingales beyond Holland-house.

His perseverance and constant attendance in the dissecting-room obtained him the eonfidence of Mr. Wilson, and he used to undertake the demonstration when Mr. Wilson's assistant was absent. It was not long before he entirely superintended the disseetions, giving lectures, a little later, with Mr. Wilson, on Anatomy.

Meanwhile, Mr. Home engaged him as his assistant in private operations, and thus early Brodie had an opportunity of adding to his income by fees obtained in this manner.

From the above-mentioned faets, it will be seen that Brodie's eircumstances were good. He had the good fortune to belong to that happy elass of society which is free from anxiety on the score of poverty, but still prevents a man from lapsing into that indolence which greater riches and a higher station are apt to foster.

Brodie was associated with Mr. Home in his researehes on Comparative Anatomy, and he must have gained much information from the dissections he made. He thus beeame aequainted with Clift, the Conservator of the Museum of the College of Surgeons, a man of humble origin, but of great ability and natural talent. Through Mr. Home he was introduced to Sir Joseph Banks, who, from his high position in the scientifie world, was able to show him much kindness. As a boy, at Eton, Sir Joseph Banks was noted for the study of Botany; and he had obtained permission, as a young man, to aeeompany Captain Cook in one of his voyages of discovery. As he had an ample fortune and no family, he was in a position to encourage and be of much service to young men who, like Brodie, were eager to join the ranks of science.

On Sunday evenings it was the custom of Sir Joseph Banks to hold meetings at his house, in Soho-square, whieh were more pleasant than those scientifie *soirées* which noblemen and would-be philosophers were used to give. These meetings were far less formal, and admitted more freedom of eonversation, than the regular meetings of the Royal Society. Tea was handed round during the evening; and there was no attempt made at display. At these meetings young Brodie must have formed acquaintances of much value.

It would be diffieult to mention a time when there were a greater number of equally distinguished ornaments to literature and seienee. Among those who met at the library, in Soho-square, may be mentioned—the elder Herschel, Wollaston, Davy, Young, Hatchett, Wilkins (the Sanscrit scholar),

Marsden, Major Rennell, Henry Cavendish, Abernethy, Carlisle, and Brown.

In the spring, these meetings were removed to a villa which Sir Joseph Banks had, near Hounslow. Here he used to dine at four o'clock, in order to enable his friends to return to town the same evening. Brodie enjoyed a rare privilege in listening to the conversations of such men; and a pleasant thing it must have been to him, after working all day in the dissecting-room, to have passed the afternoon in such excellent company, under the cedars of Spring-grove.

It was not until 1809 that Brodie took a house, and put his name on the door. But, meanwhile, he had been daily in the wards of the Hospital, profiting by the absence of Mr. Gunning (who was with Lord Wellington's forces), whose patients were transferred to Brodie's care.

His attention to his patients was unremitting. Surgeons had previously been satisfied with attending Hospital patients twice in the week; but Brodie thought it his duty to see his cases, at least, once every day; often he would visit them, besides, early in the morning, and even late in the evening.

He was probably the first to introduce Clinical Lectures in London; and, though at first he was somewhat awkward and untrained in his delivery, his lectures were always extremely popular with students. These were the result always of his own observation, and he was not accustomed to refer much to books.

It is needless again to recount the contributions he made to science. His papers on the "Influence of the Brain on the Action of the Heart, and the Generation of Animal Heat," and on the "Effects of Certain Vegetable Poisons," with others that he had communicated to the Royal Society, obtained him the honour of being presented with the Copley medal; he was then only 28 years of age. This was, doubtless, a very happy period of his life. With little anxiety about his future maintenance, he was encouraged by his hitherto successful labours, and his prospects of future honour were most satisactory..

He long after remembered with gratitude the conduct of Dr. Wollaston towards him on the occasion of an objection being raised to so young a man receiving the Copley medal. Wollaston very properly reminded the Council, that if Brodie deserved the medal, his youth was an additional reason why it should be given him.

Among other Societies to which Brodie belonged about this time, were the Animal Chemistry Club, which was composed of Home, Hatchett, Davy, Babington, Brande, Clift, Children, Warren, and himself, and a Society for the Promotion of Medical and Chirurgical Knowledge, founded in 1793, by John Hunter and Fordyce. This Society at the time Brodie was admitted as a member, was composed of Baillie, Home, Dr., afterwards Sir Gilbert Blane, John Clarke, Robertson, Barclay, Mr., afterwards Sir Patrick Macgregor, Wilson, David Pitcairn, Lister, and Wells. The *Transactions* of this Society contain many valuable papers; and Brodie himself contributed many able papers.

His time was now fully occupied. He had to rise early to fulfil his duties. He delivered lectures on three evenings in the week, and scarcely had time for a hasty dinner when he was obliged to rush off to his pupils; after this he generally had some patients to visit, and letters to answer, and hours that should have been spent in sleep had to be given to the composition of new lectures.

He was never absent from London for more than two or three weeks at a time. Though naturally strong, his health began to give way under these repeated exertions, and for some time he suffered a great deal. It was even thought probable that he would make the next vacancy in the staff of the Hospital. His health, however, was much improved by a visit to the seaside, which he made in company with Brande.

After his marriage he removed his wife and children to a house on Hampstead Heath, and here he used to pass the night, returning to London early in the morning. It was about this time that a case of spontaneous dislocation of the hip, consequent on disease of that joint, led him to turn his attention to the investigation of that class of diseases. Little was known on the subject; and the examination of books led to no elucidation. From the empirical practice which Surgeons were thus led to adopt, many a limb was sacrificed, and many a patient's leg lost, which a more complete knowledge, and such a method of treatment as resulted from Brodie's researches, would have preserved. His progress in clearing ground was slow, as it must always be to pioneers of science. At the end of the first year he seemed to be little wiser than he was at the beginning; and a less persevering, and less able man, would have thrown up the subject in despair. Brodie, however, continued his investigations, notwithstanding prolonged want of success. In the second year he appeared to himself to have made but little way, but gradually light dawned upon him; and it was not long before he was able to draw up a clear and admirable account of the diseases of the joints in a paper which was read before the Medico-Chirurgical Society, in 1813. If Brodie had done no more than this, his claims on the gratitude of posterity, for the revolution he effected in this department of Surgery, would be sufficient to cherish his memory.

It happened that, on the Thursday after the anniversary on which the Copley medal was given, Lord Holland was admitted into the Royal Society, and he, therefore, heard the Address of Sir Joseph Banks, the President, on that occasion. From this time Lord Holland became Brodie's friend, and frequently invited him to Holland-house. Here Brodie made the acquaintance of Allen, Sydney Smith, Samuel Rogers, and others of note in the literary world. Among the distinguished foreigners whom he met may be mentioned Roux, the Surgeon of the Hotel Dieu, Orfila, Magendie, Wagner, Blainville, and Bezelius. Humboldt and Dupuytren he only saw once.

From this time Brodie continued to advance gradually, but steadily, in the favour of the public. From this time there is little of general interest to relate, the details of his public life being already well known. His success year by year continued to increase, and his reputation never dimmed throughout his whole career. If he did not in one year make so large a sum as has been made by one or two men in this metropolis, his whole income must have far exceeded that of any of his predecessors.

His accuracy and sagacity were very extraordinary; his diagnosis was quick, but certain; it was not the result of guess work, but was founded on that ample experience which his industry and energy had gained for him. His love for the Hospital in which he had acquired his knowledge, was such as few men would understand. It was the work in those wards that had made his Profession so interesting to him. His resignation must have pained him deeply; and he never passed the Hospital afterwards without the sorrowful remembrance, that his work there was over, tempered, perhaps, with the consciousness that his labours had not been in vain.

The last two years of his life were much embittered by the failure of his sight. With regret he resigned the office of President of the Royal Society, and all those active duties which made life pleasant to him; and, after having spent his life as a leader and teacher to others, he had now to submit to be dependant; but he was too real a philosopher to murmur. His consideration of those about him, and his gratitude for kindness, and such little services as it was a pleasure to give, were most touching. Disease, as if to wreak its vengeance for having been so often foiled by him, laid its hand most heavily upon him. Yet to the last his conversation was as entertaining and instructive as ever—his memory as retentive. He viewed his own case calmly and impartially, and waited for the release of death, which he knew to be at hand, with that peace of mind which the sting of Death has no power to disturb.

It will be long—very long—before we see his like again.

REVIEWS.

Air and Water: their Impurities and Purification. By Henry Bollmann Condy. London: Davies. 1862. Pp. 80.

The nature and object of this volume may be readily surmised. Deleterious emanations in the atmosphere, and the most deleterious ingredients in ordinary drinking water, are, with few exceptions, oxidisable substances. Hence, they are destructible by the operation of ozone. The permanganates are a ready source of this element. Hence, the only practical difficulty lies in the special adaptation of this means of purification to special circumstances. This is Mr. Condy's programme, which he has enlarged upon in a manner which will render his book acceptable both to the Profession and the public at large. He appends special directions, among other things, for the testing of water for organic impurities, the purification of water, the detection and purification of the air of rooms, the ozonising of air, etc., by means of his solution.

An Appeal to Physiologists and the Press. By H. Freke, A.B., M.B., M.D., T.C.D., M.R.I.A., Physician to Dr. Steevens' Hospital, Dublin, etc., etc. Dublin: Fannin and Co. 1862. Pp. 34.

We feel a difficulty in respect of this pamphlet. Dr. Freke is suffering under renewed smartings in an old wound, received fourteen years ago, from a reviewer in the *British and Foreign Quarterly*. The object of his "Appeal" is to establish his claim to priority in respect of certain fundamental doctrines in physiological science, in connexion with which he complains that he has been almost studiously ignored by all physiological writers from that time to the present. He, consequently, comes before physiologists and the press as "a deeply-injured man," "appeals to their sense of justice" for a hearing, and more than hints that his books have been neglected, unread, and commercial failures, because his habits are retiring; because he is unacquainted with a single physiologist; because he is "an Irishman, unknown to an individual editor," so that he "could not ask a British journal to befriend him;" and because he resides in a country where physiological science is comparatively little cultivated. He, particularly at the present time, complains of the neglect of his books by Dr. Beale and Mr. Savory, whom he accuses of putting forth as novel views which he himself announced in 1848. We have to reply to only one of these supposed causes of Dr. Freke's misfortune. We never before knew that personal acquaintance with the Editor of a Medical Journal was essential to the obtaining from him, or from any of his staff, an impartial judgment upon the merits of any question brought under consideration. If it were, sad indeed would be the fate of the large majority of young and ardent workers. But there is a qualification for success in every battle in life: a man must not be thin-skinned. If he be, whether Englishman, Irishman, or Scotchman, go to the wall he must and will. Dr. Freke complains that his work "is *everywhere* unnoticed;" and adds, "there must be *some* cause." Of course there must. Although not personally acquainted with Dr. Freke, we would wish to respect his irritated feelings, and not say one word calculated to chafe the sore place. We, therefore, add no more than a commendation of his "Appeal" to the perusal of those to whom it is addressed.

Militär-chirurgische Studien in den Italienischen Lazarethen von 1859. Von Dr. Hermann Demme, in Bern. Vol. I. pp. 190. Vol. II. pp. 285. Würzburg. 1862.

Studies in Military Surgery in the Italian Hospitals of 1859. By Dr. Hermann Demme, of Berne.

Amongst the many valuable contributions to Military Surgery which our warlike age has produced, the above will take a high rank on account of the numerous and trustworthy original observations recorded in it. The author was Surgeon to the S. Francesco Hospital, of Milan, during the last Italian war, and had access to many other of the Italian Hospitals, where large numbers of wounded were massed together, especially during the months of June, July, and August, when the number of entries in the Hospitals of Brescia rose to 32,916, and in those of Milan to 33,900. Almost all these suffered from gunshot-wounds; for, although bayonet charges were of by no means unfrequent occurrence, and many companies of Zouaves returned from the battlefield with the whole of their ammunition untouched, yet there were few men injured by cold steel to be found in the Hospitals, since the wounds caused by the sword-bayonets of the Zouaves were generally almost immediately fatal, and the Turcos refused pardon even to their dying enemies.

In the first volume the author discusses the weapons used in the French, Italian, and Austrian armies, and describes the effects of the several projectiles upon the skin, cellular tissue, tendons and aponeuroses, muscles, vessels, and parenchymatous organs, the central nervous system, the cartilages, periosteum, and the bones. He then enters into the course, and the local and general treatment of gunshot wounds. Special chapters are devoted to Hospital gangrene, tetanus, and pyæmia. In the second volume the wounds of the different parts of the body are described, from the head and neck down to the toes. We chiefly invite attention to the description given of the wounds of the brain, where much new and interesting matter will be found. It is a curious fact that, amongst 530 injuries of the head and brain observed by the author, trephining was only performed five times! Dr. Demme is of opinion that many of the men thus injured might have been saved by trephining. Of the five cases just mentioned, three recovered and two died, but in these latter, the men were so exhausted before the operation, that recovery was not to be expected. According to the author, energetic antiphlogistic measures should always be resorted to before trephining is done; and he is, therefore, quite averse to so-called primary trephining. Where, however, the cerebral symptoms are no longer due to concussion, and where they are not relieved by antiphlogistic remedies, the opening of the skull for the removal of accessible projectiles and fragments of bones, is incumbent upon the Surgeon. With regard to accumulation of pus, we should only resort to trephining in case a simultaneous circumscribed ulceration or necrosis of bones should lead to the conclusion, that the seat of the abscess is peripheral. In the large majority of cases it is impossible to determine where the abscess may be seated; and as it is generally in the depth of the cerebral substance, trephining would be unjustifiable. The same may be said of trephining for the removal of certain residues of injuries of the head, such as local palsies, circumscribed headaches, eclampsy, and epileptiform seizures, etc. If possible, the operation should always be performed by means of Heine's osteotome.

Nosophthorie: Die Lehre vom Vernichten der Krankheiten. Von Dr. Aug. Theod. Stamm. Vol. I., pp. 321. Leipzig. 1862.

Nosophthory: The Doctrine of the Annihilation of Disease. By Dr. Aug. Theod. Stamm.

The author, who is well known in Germany as a great traveller, an enthusiastic philanthropist, and a founder of a new religious sect, has, in this book, endeavoured to found a new science of considerable pretension, viz., that of annihilating disease altogether. He discusses in this, the first part of his work, the mode of annihilating the plague, yellow fever, cholera, typhoid fever, and typhus, and endeavours to prove that epidemic diseases are due to animal effluvia, overcrowding, and deficiency of ventilation; and that if such and similar noxious influences were removed, the human species would no longer be afflicted by any of those terrible scourges. This is a sensible view of the subject, and one which most of us have long entertained. The difficulty of annihilating epidemic diseases seems to be more one of expense than anything else. It may be that Dr. Stamm would be able to annihilate yellow fever if a few thousand millions sterling were at his disposal for the purpose of cleaning, whitewashing, draining, of destroying focuses of infection, and educating negroes and white men in habits of cleanliness. But, unless such funds should be forthcoming to aid him in his work, we fear that the new science of nosophthory will hardly be of much practical importance. At the same time we may say, that the author's efforts to unravel the ultimate causes of epidemic disease are deserving more praise and encouragement than they have hitherto received.

FOREIGN CORRESPONDENCE.

FRANCE.

Paris, November 6.

THE INTERNATIONAL CONGRESS OF OPHTHALMOLOGISTS.

I to-day conclude my report on the "Proceedings of the Congress of Oculists." In the meeting of October 2, Dr. Schweigger, of Berlin, read a paper on the "Different Forms of Inflammation of the Choroidea." Purulent choroiditis shows the most characteristic symptoms of all of them. The formation of pus-corpuscles in this affection takes place exclusively in the anterior layers, that is, in the parenchyma of the membrane. By the name of ectatic choroiditis, another group of morbid symptoms is comprehended, which are chiefly due to an augmentation of the corpus vitreum; it is, in fact, an atrophy of the choroidea, which extends to the epithelial layer; at last there remains nothing of the membrane but the most delicate fibres of the external layers which form the elastic tissue. In most cases, the choroidea, which has thus become atrophied, adheres to the sclerotic, and to the retina, which latter is also atrophied at a point where there is a partial staphyloma of this membrane. Chronic

inflammation of the internal surface of the choroidea causes just as well adhesions between the choroidea and retina as a serous infiltration of the latter membrane. Such infiltration produces atrophy and complete destruction of all the elements of which the retina consists ; so that, at last, there remains nothing of that membrane but an areolar or connective tissue. At the same time, the epithelium of the choroidea is augmented by the formation of new cells, which are, as it were, implanted into the retina, where they occupy the place of the tissues destroyed in consequence of atrophy.

The next communication of importance was one by Dr. Von Hasner, of Prague, who spoke on the "Operation of Corelysis, with Eruption of Posterior Synechiæ," which he had performed in seven cases. An animated discussion followed, in which Mr. Critchett, Von Graefe, Arlt, Sichel, Desmarres, and Wecker, took part, all the speakers differing more or less from each other. Von Graefe and Desmarres were decidedly against the operation. Von Graefe then spoke on "Muscular Astenopia," an affection which is much more rare than is generally believed, and which it is the more incumbent upon us to study closely, as it yields to a suitable treatment. The symptoms are those of ordinary astenopia, but attentive observation shows that it is due to insufficiency of the recti interni muscles. It would seem that the cause of the disease is a relative preponderance of the recti externi and a disturbance of equilibrium between the recti interni and the refraction of the organ of vision. The diagnosis is confirmed by the difficulty which the recti experience to render single the double images caused by prisms. As to the treatment, the author rejects all gymnastic means, and has only confidence in the tenotomy of the recti externi. M. Giraud-Teulon then showed a scale of prints suitable for measuring the degree of acuity and the extent of the field of distinct vision. Professor Donders showed similar prints, and also communicated statistic results, brought out, by one of his pupils, by the measurement of the acuity of vision in different ages. Dr. Liebreich read a paper on the "Morbid Alterations of the Inner Membranes of the Eye, as revealed by the Ophthalmoscope," and showed admirable coloured plates representing these changes. M. Golezowski finally gave an account of the results obtained in M. Desmarres' clinique during the year 1861.

The last meeting of the Congress was held on October 3. M. Anagnostakis, of Athens, first read a paper, in which were embodied his "Historical Researches on the Treatment of Granulations by the Ancients." After which, M. Marquez, of Lisbon, spoke on "Military Ophthalmia;" and Mr. Williams, of Cincinnati, on the "Destruction of the Sac in Lachrymal Tumour, the Inoculation of Pus in Pannus, and the Extirpation of the Eye as a Prophylactic Remedy in Sympathetic Ophthalmia." M. Herschell related a case of atrophy of the optic pupil, connected with *ataxic locomotrice*, which had been treated successfully by nitrate of silver administered according to the plan of MM. Charcot and Vulpian.

Professor Donders next called the attention of the meeting to the subject of Strabismus. He pointed out that anomalies of refraction furnish the most frequent causes of strabismus; that is, that in the great majority of cases of strabismus, the eye is either myopic or hypermetropic. Indeed, hypermetropia is by far the most frequent cause of convergent squint. He also pointed out the interesting fact, that the squint may be only apparent, although the deviation of the optic axis may be well-marked. This is due to the position of the visual line with respect to the optic axis. In hypermetropic persons, the former may lie considerably to the inner side of the optic axis ; in looking at distant objects, there will consequently appear to be a divergent squint. In myopia the visual line may correspond with, or even lie to the outer side of, the optic axis, and there will hence appear to be convergent squint.

Professor Ruete then asked M. Donders to give a short abstract of his recent discoveries on astigmatismus; to which demand the learned Dutchman at once acceded, referring to his work on the subject, which has been published by Germer Baillière (Paris, 1862). M. Fano next read a paper on the "Treatment of Lachrymal Catarrh by Iodine Injections." M. Pagenstecher, of Wiesbaden, was called away by telegram, and could, therefore, not read his essay on a "New Operation for Entropion." M. Rivaud-Landrau gave an account of M. Sperino's method of "Paracenthesis of the Cornea," whichwas not to be recommended. M. Abbate, of Alexandria, spoke on "Artificial Keratoplastics."

The meeting then proceeded to choose the place for the next Congress. The choice fell on Vienna, which had been proposed by Dr. Wecker. After a few other communications of less importance, M. Von Graefe spoke on the "Antagonism in the Effects of Opium and Belladonna, with regard to the Apparatus of Accommodation as well as with regard to the Iris." The tensor choroideæ muscle would seem to consist, just as the iris, of a wreath of radiated fibres, implanting themselves with their inner end on a circle formed of circular fibres, analogous to the sphincters. The radiated fibres, which are under the influence of the sympathetic nerve, would contract in both organs under the action of belladonna, or the reflex action of the sympathetic ; while they would be paralysed by opium and the section of the superior filament of the cervical ganglion.

The proceedings then terminated; but the assembly met once more in the evening at a splendid banquet in the *salons* of Véfour, in the Palais Royal. The principal toast of the evening was given by Professor Donders, who drank to the health of specialities; for it was only by cultivating specialities that the science of Medicine could be really advanced.

GENERAL CORRESPONDENCE.

SALARIES TO HOSPITAL PHYSICIANS AND SURGEONS.

Letter from Dr. W. O. Markham.

[To the Editor of the Medical Times and Gazette.]

Sir,—A correspondent of yours has lately favoured the Profession with some very interesting historical details concerning certain of our Royal Hospitals. He is evidently well up on his subject; and, perhaps, therefore, you will allow me to ask him to supply us with any more exact information he may possess relative to the remuneration made to the Medical officers of those Hospitals; and also to tell us whether any of the great Physicians and Surgeons, who held office in former days at those Hospitals, ever gave their services gratuitously. Perhaps, also, he could tell us when and how the folly of giving these services gratis was first inaugurated in this country. I am, &c. W. O. Markham.

ON PARTURITION IN CONNEXION WITH IDIOCY.

Letter from Dr. James Paterson.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you afford me space to make a few remarks on the paper of Dr. Arthur Mitchell, entitled "Difficult or Anomalous Parturition in Connection with Idiocy," and which appeared in the *Medical Times and Gazette* of July 12? I quite expected that some one more able than myself would have made some comments upon it, but, with the exception of Dr. Ramsbotham's letter calling attention to a single point of the paper, no one has yet done so.

It has been said that figures may be made to prove anything, and, in point of fact, there are many errors propagated under the cloak of numerical accuracy. And yet the full value of statistical data is only beginning to be sufficiently appreciated. But the circumstance renders it the more necessary that numerical data should rest on a sound basis.

On reading Dr. Mitchell's paper, it will be seen that, generally, he takes the number, 494, of idiots, as an absolute number, and reasons that, because this aggregate was found to furnish a proportion that appears to him large, of tedious labours, of forceps deliveries, etc., therefore these circumstances influence the production of, if they do not actually cause, idiocy. But, incidentally, he regards the number, 494, as a portion of an unknown number of births, and yet he says not a word of the average age of these 494 idiots, whereby one may calculate the gross number of births, of which these are the residue. Protracted labour is stated by Dr. Mitchell to be a distinct cause of idiocy; male children are (correctly) spoken of as producing the greatest proportion of tedious labours; and, notwithstanding, no mention is made of the sex of the 494.

Passing over these anomalies, which should not occur in a statistical paper, and examining the main line of argument, viz. : that of a given number of idiots, a proportion larger than occurs in ordinary maternity returns, have a history of

tedious labour and of forceps delivery, one cannot fail to be struck with the fact, that many data, the subject of inquiry under "favourable circumstances," their correctness being tested by "cross-questioning and leisurely talk," are compared with *nothing*. To make an enquiry of this kind of any value, it would be necessary to ascertain the results to which one would be led, by pursuing it simultaneously in the case of an equal number of individuals intellectually sound. The question would thus resolve itself simply into the following:—Given—a certain number of idiots, and the same number of those intellectually sound, the average age being the same, compare the results in connection with tedious labour and instrumental delivery in the two classes. No one can tell to what result such an inquiry will lead. Dr. Mitchell's paper must be regarded simply as suggesting this inquiry, but it leaves its solution entirely open, while professing to give a complete answer. As a suggestion the paper is valuable, but viewed as a solution of the question proposed, it is worthless. Tedious labour is, no doubt, a cause of physical injury, and might be expected, through this, to occasion intellectual damage, but of this Dr. Mitchell's paper gives no proof.

I am, &c.

James Paterson, M.D., M.R.C.S.E.

Partick, Glasgow.

AUTUMNAL CHOLERA?

Letter from Mr. Robert H. A. Hunter.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you kindly permit me to ask, through your excellent journal, why (*Medical Times* of this date) Dr. Willshire calls his case "Autumnal Cholera?" I have not read, it is true, Sydenham's work these thirty years; but, if I mistake not, he says the Autumnal cholera in London in his day never extended beyond the first week of September; and if truly a sporadic case of the Ganges cholera, why not say so? I ask the question more particularly, having lost a very old friend in the country of the same on October 16 last, after eighteen hours' illness; and have noticed two in Liverpool, the same week, I think, one after only fifteen hours. Was Sydenham wrong, or has the disease changed? And what of that Physician's grand remedy? A fowl boiled in a gallon of water (I speak from memory, not having now the work), the broth to be drank *ad libitum*. Dr. Willshire seems rather to have followed the India practice, at all events in my day (1827 to 1845). But a few years ago, a relative of mine died of the same in the month of March, after some days lying in the typhoid collapse, deemed peculiar to the Asiatic variety. You will agree with me, I think, that it is a very important question.

I am, &c.,

Robert H. A. Hunter, 1st Class Staff Surgeon (half-pay), formerly Assistant-Surgeon 2nd or Queen's Royal Regt.

Moffat, Dumfrieshire, Nov. 8.

N.B.—I saw several of the true Autumnal in this country before going to the East—to wit, in August, 1826.

REPORTS OF SOCIETIES.

JUNIOR MEDICAL SOCIETY OF LONDON.

Tuesday, October 21.

William Travers, Vice-President, in the Chair.

The first meeting of the present session was held at Charing-cross Hospital, on Tuesday evening, October 21, and was numerously attended by the students of the various metropolitan Hospitals.

William Travers, Esq., V.P., on taking the chair, remarked that the first meeting of the Society had been held a year since in that room. The fact of their assembling there again and in such numbers, afforded ample proof of the entire success of the Junior Medical Society.

The following pathological specimen was exhibited by Mr. Travers:—

A CASE OF FRACTURED SKULL.

A paper, by Mr. Frank W. Cooper, was read

ON SOME POINTS IN THE TREATMENT OF DELIRIUM TREMENS.

The object of the Author being to show from cases treated in the Hospital and elsewhere:—1. That delirium tremens is not produced by the diminution or abstraction of accustomed stimuli. He held the views of some recent writers, that the disease may be regarded as a paroxysm of poisoning by alcoholic stimulants, and that, therefore, the continued administration of the specific poison is not the plan of treatment to be adopted. 2. That the advent of the "critical sleep" is not the cause of the favourable termination of the attack, but the effect. 3. That opium, in any form, is not necessary to bring about the hypnotic state, but may be prejudicial to that event. And 4. That mechanical coercion should on no account be resorted to. In concluding, Mr. Cooper passed briefly in review the various remedies which had from time to time been proposed, but most of which had enjoyed but an ephemeral reputation.

A lengthy discussion ensued, in which Messrs. Yeo, Travers, Meadows, Gedge, Morton, Deck, Davy, Hobson, Jones, etc., took part.

The Author of the paper having replied, the meeting adjourned.

THE MIDLAND MEDICAL SOCIETY.

Tuesday, October 21.

Dr. Melson, President, in the Chair.

THE LARYNGOSCOPE.

Mr. Furneaux Jordan exhibited the mode of using this instrument. He referred in brief terms to the labours of Liston, Avery, Garcia, Türck, and Czermak. He drew particular attention to the numerous details which are essential to the successful inspection of the larynx, and adverted to the class of cases where the use of the laryngoscope would prove most serviceable. In acute laryngeal disease, and in certain affections, which, for the sake of brevity, he termed superlaryngeal, the instrument in question could not be used with facility.

Mr. Duncalfe communicated the details of five

CASES OF IMPERFORATE ANUS,

which had come under his care in a practice which included three thousand midwifery cases. In two cases, where a thin membrane secluded the anus, complete relief was afforded by a crucial incision, and the subsequent use of a tallow bougie. In the other cases the obstruction was at a greater depth. In one of them Mr. Duncalfe resorted, with success, to an operation which he had not seen described. It consisted in passing a ligature through the distended bowel, which could easily be felt through the external incision, and subsequently making an opening with scissors. The lining membrane of the bowel could thus be readily drawn down and attached to the integumental surface.

Dr. Earle gave the particulars of a case of

CORRODING ULCER OF THE UTERUS,

occurring in a young woman only 21 years of age. A singular feature in the case was, that the ulceration progressed very rapidly under the influence of powerful caustics, while repair was induced, which terminated in recovery, by the local use of a mild solution of the diacetate of lead.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

LAYING THE FIRST STONE OF THE ALBERT WING.

On Thursday afternoon last, Mr. Propert, the founder and Honorary Treasurer of this College, performed the interesting ceremony of laying the foundation-stone of the four new residences for pensioners, and which, by the gracious permission of her Majesty, bears the name of the "Albert Wing."

The new wing is situate at the west end of the College, and will be connected with the present houses by an arch. The Gothic style of architecture will, of course, be preserved throughout; but the new residences, being at one end, will form an angle, and be carried a story higher than some of the other houses. A glance at the various plans shows that the same care paid towards the comfort of the aged inmates in the other residences, will not be neglected in those now in course of erection.

The new building will be erected by public subscription; and in the list of donors, we are informed that the ladies, who so munificently provided for the chapel some years ago, again came forward with great liberality. Owing to such generosity, the Council have the satisfaction of knowing that all the money required for the new building has been received. This additional wing will make the residences at the College twenty-four in number, there being twenty at present. The architect of the new building is Mr. George Elkington, of 19, Cannon-street West; and the contractor is Mr. Conder, of Kingsland-road, London; the contract price being £1976. It is anticipated that the new wing will be finished in March next, and in a fit state for habitation by the time of the annual meeting in May, 1863.

Shortly before three o'clock, the Founder and following members of the Council assembled in the Hall of the College:—Messrs. Lord, Hancock, Jonson, Sterry, Blenkerne, Carr, Ward, and the Rev. G. Pocock; several ladies being present, including Mrs. Thornton (the wife of the Head-Master), Miss Payne, and the resident pensioners. A procession to the spot fixed for the day's ceremonial was formed in the order given below:—

The Founder, John Propert, Esq.
The Head-Master, the Rev. Dr. Thornton.
The Council, two abreast.
Mr. Freeman, Secretary, and Mr. G. Elkington, Architect.
The College Band.
The Masters.
The Scholars two abreast.

Mr. Jonson, addressing the company, said: Ladies and gentlemen, and my young friends, at a meeting of the Council of the Royal Medical Benevolent College, held on Wednesday last, at the Offices, Soho-square, it was unanimously resolved that the Founder of this Institution should be requested to lay the first stone of the Albert Wing. I need hardly remind you that the task devolves upon a gentleman who will not less gracefully fulfil the duty, than he will, I am sure, feel grateful to us all, for having placed him in a position in which he must necessarily feel very proud. The distinction which has fallen to him upon this occasion, however, arises, as you all must be aware, from the very large and very intense interest he has taken in this noble Institution from the earliest period of its existence—(hear); and I am quite sure we shall all hail, with the utmost satisfaction and happiness, to see him in the enjoyment of such excellent health, to commence a work from which we all hope to see so much good arise. (Applause.)

Mr. Propert: Ladies and gentlemen, having been placed in this enviable position, I now call upon my reverend friend, the head master of this College, to offer up a prayer to Almighty God, and to ask his blessing.

The Rev. Dr. Thornton then read the 134th Psalm, and offered up some suitable prayers.

Mr. Propert then advanced to the place where the masons had the stone ready to be deposited, and having taken a trowel and spread the mortar, the massive block of granite was lowered to its position, amidst the applause of the bystanders, the founder saying,—"I declare this to be the first stone of the new wing, which I earnestly trust may be a blessing to those who seek an asylum therein." (Loud cheers, and one for the founder.)

Mr. Propert, addressing those present, said: Ladies and gentlemen, you are aware that some trouble has been taken to establish this Institution, and I trust that what we are now about to do will almost be the completing link in what is so desirable a work. I have been ever most anxious to add a trifle to that love and respect due to one of the best of princes and of men. A better man never lived than the late lamented Prince Consort. (Hear.) We have experienced his kindness and urbanity in every possible way that a prince could bestow upon an Institution; and, when he was removed from us, I thought that we could not put a finishing stroke to the Royal Medical Benevolent College, better than by erecting those four additional residences for pensioners in memory of the best and kindest of men (hear, hear). Well do I remember that, when he honoured this place with a visit, I accompanied his late Royal Highness over one of the pensioner's residences, and his words, as nearly as possible, were these: "Mr. Treasurer, I candidly tell you that these residences are the most perfect little things I ever saw in my life, and I regret there are not more of them." After thinking of such words, I could not help doing all in my power in order to perpetuate the memory of such an excellent and gracious Prince. (Applause.) I hope the building will be completed before long, and that those who take up their residences in them will, as they are intended for a place of rest, have time there to prepare themselves for a better and another world. May God bless the undertaking. I have now great pleasure in stating that I am not without strong hope that her Most Gracious Majesty may, at some future time, honour this College with her presence, as she is the Patron of it. (Loud applause.) I can never forget that his Royal Highness the Prince of Wales has already condescended to come here; he was present at the opening of the College, in company with his much-lamented father: therefore, I hope her Majesty will honour us with her presence. (Applause, and the National Anthem by the Band.)

Mr. Propert, addressing the scholars, told them he hoped that, in return for the privileges placed within their reach, they would turn out good, learned, and gentlemanly men (hear). He called upon them to give three loud and hearty cheers for the ladies, through whose benevolence the Council were enabled to raise that wing.

This appeal was responded to by the lads in a very suitable manner; and like compliments having been paid to Mr. Propert and the Rev. Dr. Thornton, the company returned to the front of College in the same order as they had proceeded from it.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a Meeting of the Court of Examiners on the 11th inst., and, when eligible, will be admitted to the Pass Examination:—

Charles Etheridge, Edward Chaffers, Joseph Good, William Frankland, and Thomas Griffith, students of St. Thomas's Hospital; Frederic Charles Bailey, George Hurlstone Elliott, and Thomas John Peatfield, of St. Bartholomew's Hospital; Henry Robert Davis and James McBride, of the Westminster Hospital; William Clement Daniel and William Milward Seabrook, of Guy's Hospital; William Ackrill Stamford and Henry Augustus Crosthwaite, of Leeds; James Flack, London Hospital; William Henry Day, Charing-cross Hospital; Moriz Schafrira, Vienna; David Hollis Payne, of Birmingham; Sidney Rossell Henson, of Hull; Thomas Robert White, of Galway; and John Wright Craig, of Glasgow.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 6, 1862:—

Aaron George Medwin, 4, Blackheath-road, S.E.; John Rowland, Strata Florida, Cardiganshire; Arthur Roper, 180, Shoreditch, N.E.; William Peter Rawlins, 2, Francis-terrace, Kentish Town; James Yates, Pit Bank Hall, Oldham, Lancashire.

Apothecaries' Hall of Ireland.—At a Court held on Friday, October 31, Alexander Tertius Carson, M.D., Edin., M.R.C.S. Eng., of Coleraine, passed the examination, and received the license of this body.

APPOINTMENTS.

Acland.—Henry Wentworth Acland, M.D. Oxon, F.R.C.P. Lond., F.R.S., has been appointed Consulting Physician to the Dispensary, Abingdon, Berks.

Adams.—James Adams, M.D. King's Coll. Univ. Aberd., L.R.C.S. Edin., F.F.P.S. Glasg., has been elected President of the Glasgow Medical Society.

Alleyne.—Assistant-Surgeon R. Alleyne, Indian Service, has been placed on general duty, Poona Division.

Anderson.—Thomas McCall Anderson, M.D. Univ. Glasg., F.F.P.S. Glasg., has been elected Secretary (jointly with Dr. McLeod) to the Glasgow Medical Society.

Andrew.—James Andrew, M.B. Oxon, M.R.C.P. Lond. (exam.), has been elected Physician to the Royal General Dispensary, Bartholomew-close, *vice* Charles Penfold Ingram, M.D. Cantab., M.R.C.P. Lond. (exam.), resigned.

Baker.—Alfred Baker, F.R.C.S. Eng., L.S.A. Lond., has been reappointed Surgeon to the General Institution for the Instruction of Deaf and Dumb Children, Edgbaston, near Birmingham.

Ball.—Alfred Ball, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the York Dispensary and to the York Institution for Diseases of the Eye, *vice* Oswald Allen Moore, M.R.C.S. Eng., L.S.A. Lond., deceased.

Barkway.—Robert Edgar Edward Barkway, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon for the Bungay District of the Wangford Union, Suffolk, *vice* Henry French, M.R.C.S. Eng., L.S.A. Lond., resigned.

Bluett.—Walter John Bluett, M.R.C.S. Eng., Assistant-Surgeon R.N., August 4, 1855, has been appointed to the *Victory* for service at Haslar Hospital.

Boon.—Joseph Henry Boon, M.D., has been appointed Member of the Executive Council of the Island of St. Christopher.

Box.—John Box, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Dispensary, Abingdon, Berks.

Braddon.—Charles Hitchman Braddon, M.R.C.S. Eng., L.S.A. Lond., has been appointed Resident Assistant Medical Officer to the Bridge-street Workhouse, Manchester.

Brisbane.—Thomas Brisbane, M.D. Univ. Edin., M.R.C.S. Eng., Acting Assistant-Surgeon R.N., has been appointed to the *Nile* Flag Ship, on the North American and West Indian Station, as Supernumerary.

Chevallier.—Barrington Chevallier, M.D. Oxon., M.R.C.P. Lond., has been appointed Physician to the East Suffolk and Ipswich Hospital, *vice* Edward Beck, M.D. Cantab., deceased.

Clarke.—Sidney Edward Clarke, M.R.C.S. Eng., L.S.A. Lond., has been appointed Medical Officer for the Mortlake District of the Richmond Union, *vice* Henry Smith Palmer, M.R.C.S. Eng., L.S.A. Lond., deceased.

Couchman.—Robert Couchman, M.R.C.S. Eng., L.S.A. Lond., has been elected Mayor of Bedford.

Cullinan.—Charles Cullinan, L.R.C.S. Irel., has been elected Medical Officer to the Crusheen Dispensary District of the Ennis Union, County Clare, *vice* Michael Healy, M.D. Univ. Edin., F.R.C.S. Irel., M.R.C.S. Eng., deceased.

Donovan.—Daniel Donovan, M.D., Acting Assistant-Surgeon R.N., has been appointed to the *Nile* Flag Ship, on the North American and West Indian Station, as Supernumerary.

Dorward.—Surgeon-Major J. Dorward, Indian Service, has been appointed to act as Deputy-Inspector-General of Hospitals during the absence in Europe of Deputy-Inspector-General J. Lovell.

Fearnley.—George Fearnley, M.D. Heidelberg, L.R.C.S. Edin., M.R.C.S. Eng., L.S.A. Lond., has been re-elected Mayor of Dewsbury, Yorkshire.

Jackson.—Henry Jackson, M.D. Mar. Coll. Univ. Aberd., has been elected Town Councillor for Aberdeen.

Jones.—Henry Prout Jones, M.R.C.S. Eng., L.S.A. Lond., has been elected Mayor of Pembroke.

Jones.—Thomas Jones, F.R.C.S. Eng., L.S.A. Lond., has been elected Mayor of Chesterfield.

Leonard.—Frederick Lewis Leonard, M.R.C.S. Eng., Surgeon R.N., September 21, 1861, has been appointed to the *Lily*.

Macleod.—George H. B. Macleod, M.D. Univ. Glasg., F.R.C.S. Edin., F.F.P.S. Glasg., has been appointed joint Secretary with Dr. Anderson of the Glasgow Medical Society.

Martin.—John Friskney Martin, L.F.P.S. Glasg., M.R.C.S. Eng., L.S.A., Lond., has been appointed one of the Surgeons to the Dispensary, Abingdon, Berks.

Martin.—Arthur Martin, L.F.P.S. Glasg., has been appointed Assistant Medical Officer to the Workhouse, Brownlow-hill, Liverpool, *vice* Thomas Pembrey, M.R.C.S. Eng., resigned.

Montgomery.—James Barclay Montgomery, M.D. Univ. Glasg., M.R.C.P. Lond., L.R.C.S. Edin., M.R.C.S. Eng., has been appointed Assistant-Curator to the Penzance Natural History and Antiquarian Society.

More.—Robert More, M.D., Acting Assistant-Surgeon R.N., has been appointed to the *Nile* Flag Ship, on the North American and West Indian station, as Supernumerary.

Morton.—James Morton, M.D. Univ. St. And., L.R.C.S. Edin., F.F.P.S. Glasg., has been appointed one of the Vice-Presidents of the Glasgow Medical Society.

Perry.—Martin Perry, M.D. Univ. St. And., L.R.C.P. Edin. (exam.), M.R.C.S. Eng., and L.M., L.S.A. Lond., has been elected one of the Town Councillors for the Borough of Evesham, Worcestershire.

Perry.—Robert Perry, M.D. Univ. Glasg., F.F.P.S. Glasg., L.S.A. Lond., has been appointed Treasurer to the Glasgow Medical Society.

Poppleton.—Joe Poppleton, M.R.C.S. Eng., L.S.A. Lond., has been elected Consulting-Surgeon to the Infirmary and Dispensary, Bradford, Yorkshire, on the termination of his ten years' appointment as Surgeon.

Roden.—William Roden, M.D. Univ. St. And., L.R.C.P. Edin., F.R.C.S. Eng., L.S.A. Lond., has been elected Mayor of Kidderminster.

Roe.—Thomas A. Roe, M.D., Assistant-Surgeon R.N., has been appointed to the *Sutlej*.

Sharwood.—Edward Julien Sharwood, M.D. Univ. Edin., M.R.C.S. Eng., Acting Assistant-Surgeon R.N., has been appointed to the *Nile* Flag Ship, on the North American and West Indian station, as Supernumerary.

Simpson.—John Simpson, Acting Assistant-Surgeon R.N., has been appointed to the *Trafalgar*.

Smith.—John Smith, M.D. Univ. Edin., L.R.C.S. Edin., L.S.A. Lond., has been elected Alderman of Warrington, Lancashire.

Smith.—Acting Deputy-Inspector of Hospitals C. J. Smith, Indian Service, has been appointed Deputy-Inspector of Hospitals, *vice* Deputy-Inspector General W. G. Davidson, who has been permitted to retire on pension of £500 per annum.

Southern.—John Southern, M.R.C.S. Eng., L.S.A. Lond., has been elected Town Councillor for Ludlow, Salop.

Steele.—James Steele, M.R.C.S. Eng., L.S.A. Lond., has been appointed Assistant Medical Officer to the Workhouse, Brownlow-hill, Liverpool, *vice* James Dowell, M.R.C.S. Eng., resigned.

Stewart.—James Stewart, M.D. Univ. Glasg., F.F.P.S. Glasg. (exam.), has been elected one of the Vice-Presidents of the Glasgow Medical Society.

Stone.—Daniel Stone, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Dispensary, Abingdon.

Terry.—Henry Terry, jun., M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Northampton Borough Gaol, *vice* Charles Dodd, M.R.C.S. Eng., L.S.A. Lond., deceased.

Thomas.—Evan Thomas, M.R.C.S. Eng., L.S.A. Lond., has been appointed non-resident Medical Officer of the Bridge-street Workhouse, Manchester.

Traill.—John Traill, F.R.C.S. Edin., has been elected Town Councillor for the Borough of Arbroath, Forfarshire.

Truran.—Thomas Truran, M.R.C.S. Eng., L.S.A. Lond., has been elected Mayor of Truro, Cornwall.

Wade.—Willoughby Francis Wade, M.B. Trin. Coll. Dub., M.R.C.P. Lond., M.R.C.S. Eng., L.M. Dub., has been reappointed Physician to the General Institution for the Instruction of Deaf and Dumb Children, Edgbaston, near Birmingham.

Williams.—Edward Williams, M.D. Cantab., has been elected Mayor of Colchester.

Willis.—George Willis, M.D. Univ. Glasg., L.M. Glasg., L.R.C.S. Edin., L.S.A. Lond., has been elected Town Councillor of the Borough of Monmouth.

DEATHS.

Beane.—November 7, Joseph Michael Beane, of Tunbridge Wells, formerly of Peckham, Surrey, M.R.C.S. Eng., L.S.A. Lond., age 55.

Bell.—November 4, suddenly, at Boundary Bank, Jedburgh, Roxburghshire, Dr. William Bell, Inspector-General of Hospitals. He had served for many years in India, China, and Canada.

Brophy.—November 6, Patrick Brophy, of Dublin, Dentist to the Lord Lieutenant of Ireland for many years.

Eastment.—October 30, John Willott Eastment, of Wincanton, Somersetshire, M.R.C.S. Eng., L.S.A. Lond., aged 65.

Furze.—Recently, at Bristol, Mr. Joseph Furze, aged 67.

Goold.—October 5, of abscess of the liver, Francis Goold, Assistant-Surgeon, Bombay Medical Service.

Mead.—September 30, at Malabar Hill, Bombay, Cornelius Christopher Mead, M.R.C.S. Eng., Assistant-Surgeon to the European Hospital, Bombay, aged 40. He had been sixteen years in the Indian Service, during upwards of twelve of which he had resided at Bombay, where he acquired a large circle of friends, and a general practice, such as has been rarely equalled by any Medical Practitioner in Bombay.

Palmer.—October 19, Henry Smith Palmer, of St. Leonard's, Mortlake, Surrey, M.R.C.S. Eng., L.S.A. Lond., deceased.

Tracey.—October 27, at Piltown, Ireland, Mr. Matthew Tracey, Medical Student. He had completed his studies, and was on the eve of going up for his examination for the Diploma of the Royal College of Surgeons of Ireland.

Wood.—October 30, Robert Heaton Wood, late of St. Martin's, Leicester, F.R.C.S. Eng. (exam.), L.S.A. Lond. (second son of Charles Walker Wood, of Woodhouse Eaves, near Loughborough, Leicestershire, M.R.C.S. Eng., L.S.A. Lond.), aged 29.

Wraith.—October 30, John Hope Wraith, of St. Owen's, Jersey, formerly of Over Darwen, Lancashire, M.R.C.S. Eng., L.S.A. Lond., aged 49.

LONDON GAZETTE.

November 7.

8th Hussars.—Staff Assistant-Surgeon Ralph Robert Scott to be Assistant-Surgeon, *vice* Lumsden, deceased; dated November 7, 1862.

5th Foot.—Staff Assistant-Surgeon Thomas Ravenscroft Whitty to be Assistant-Surgeon, *vice* J. W. Gillespie, M.D., who resigns; dated November 7, 1862.

20th Foot.—Staff Assistant-Surgeon Frederick Robert Wilson, M.B., to be Assistant-Surgeon, *vice* Crump, appointed to the Staff; dated November 7, 1862.

Medical Department.—Assistant-Surgeon Hammerton Crump, M.D., from the 20th Foot, to be Staff Assistant-Surgeon, *vice* Wilson, appointed to the 20th Foot; dated November 7, 1862.

Staff Assistant-Surgeon Colin Alexander Fraser has been permitted to resign his commission; dated November 7, 1862.

Brevet Deputy Inspector-General of Hospitals.—Abraham Goodall, retired on full pay from her Majesty's Indian Military Forces, to have the Honorary rank of Inspector-General of Hospitals; dated November 7, 1862.

Surgeon Alexander Lorimer, M.D., retired on full pay from her Majesty's Indian Military Forces, to have the Honorary rank of Deputy Inspector-General of Hospitals; dated November 7, 1862.

1st Clackmannanshire Rifle Volunteer Corps.—Peter Brotherstone to be Honorary Surgeon; dated November 3, 1862.

November 11.

East York Regiment of Militia.—Harry John Harris Tonson, gent., to be Assistant-Surgeon, *vice* Freeman, resigned; dated October 3, 1862.

11th Kent Rifle Volunteer Corps.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon Edward Augustus Williams.

Dr. George Willis, M.D., has been elected Mayor of Monmouth for the ensuing year.

Harveian Society.—The next meeting of this Society will be held on Thursday, November 20, at 8 p.m., when a paper will be read by Dr. Sieveking, on "The Laryngoscope."

Hydrophobia.—The Austrian correspondent of the *Times*, dating from Vienna, November 7, writes, "Hydrophobia having been prevalent here, 1800 dogs were caught and destroyed by the knacker in one month."

Cottage Hospitals.—The friends of these excellent institutions will be glad to learn, that Mr. Rashleigh, of Menabilly, near Fowey, Cornwall, in order to mark his sense of the administrative and professional ability with which Fowey Cottage Hospital has been managed by Dr. Arthur

Davis, its founder, has, with his accustomed liberality, offered six new houses at Par, in close proximity to the celebrated Par Consols Mines and Harbour, to be fitted up as a branch Cottage Hospital, under the Professional care of Dr. Davis.

MISS NIGHTINGALE.—We (*Times*) regret to learn that there is only the very slightest foundation for the report of Miss Nightingale's restoration to health. She is able to remove from one place of residence to another—a very few miles—once a year, but she is scarcely able to leave her bed in the intervals, and quite unable to struggle with the flood of correspondence and applications of all kinds which the report of her partial recovery has brought upon her.

ODONTOLOGICAL SOCIETY, November 3; Mr. Tomes, President, in the Chair. — Mr. Vasey read a paper on "Retarded Development of the Permanent Teeth." After some introductory remarks the author referred to a case in which the central superior incisors were not erupted till after the eighteenth year. He then reviewed the opinions of authorities on this subject, and in connexion with the presence of supernumerary teeth, and one mode of practice adduced therefrom.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate held on Wednesday, the 12th inst., the Right Hon. the Earl of Rosse was unanimously elected Chancellor of the University, in the room of the late Lord Primate of Ireland. This is a fitting and well-merited tribute to a distinguished nobleman, whose eminent labours in the cause of science shed additional lustre on his exalted rank. The construction of the Rosse telescope alone is sufficient to hand his name down to a distant posterity, and to justify his selection for an office which has, on five several occasions, been filled by princes of the present reigning family of England.

REMOVAL OF ST. THOMAS'S HOSPITAL.—The Medical Officers have drawn up a temperate and well-considered memorial, on the relative advantages of an urban, or a suburban, or extra-urban site. One of their number claims greater absolute salubrity for a country site; the others do not admit this, and contend that, even if it were so, the balance of convenience would rest with a site readily accessible to patients, to their friends, and to the Medical Officers. Perhaps they overrate the inconveniences of the short railway journey, and most decidedly they overdo the notion, that no eminent London Practitioners could attend patients, and teach pupils at a School, distant half-an-hour's railway journey. Practically it seems to be conceded, that there must be an urban, or suburban, receiving-house or Hospital, and an extra-urban likewise. The present question is the site and dimensions of the former. But a great metropolitan charity ought not to degenerate into a mere local machinery for relieving the casual poor, for whom the rate-payers ought to provide.

DR. STEEVENS' HOSPITAL AND MEDICAL COLLEGE, DUBLIN.—The honours awarded at the termination of the Session of 1861-62, were distributed at the Hospital, on Thursday, the 6th instant, by his Excellency the Lord-Lieutenant. The recipients of the Cusack medals and exhibitions were—Mr. James Ferrier Clarke, Dublin; Mr. Charles Holman Parkes, New Lyn, Cornwall; Mr. Andrew M'Master, Omagh. Fourteen other students received certificates of general attention and proficiency at the terminal examinations. In the course of an eloquent and appropriate speech his Excellency stated, that he considered the pleasure of presiding on such occasions amongst the most gratifying privileges of his office. On the motion of the Honourable and very Rev. the Dean of St. Patrick's, seconded by Mr. G. W. Maunsell, the thanks of the Governors of the Hospital were unanimously voted to the Lord-Lieutenant, for his kindness in attending, as well as for the able and suitable address which he delivered upon the occasion.

A CHLOROFORM PANIC.—A cruel hoax, which might have led to serious consequences, was perpetrated a few days ago in a second-class carriage on the Waterford and Limerick Railway. As the train was proceeding between Tipperary and Cahir, it was suddenly brought to a standstill by the screams of two young girls, who were found frantically trying to make their escape by the window of the carriage. From a very unconnected tale, it appeared that a young man, "respectably dressed," and one of four male passengers who occupied seats in the carriage in which the girls were, had taken from his pocket, suddenly, a bottle, and had thrown its contents in their faces. Although thickly veiled, the fluid fell on their cheeks, which began to smart, and almost instantaneously they felt "a numbed sensation" and a feeling as if of unconsciousness creeping over them. The windows of the carriage had previously been closed by the man who had acted in so rude and mysterious a manner. After much persuasion, the girls re-entered the carriage, and on arriving at Cahir their assailant was handed over to the police. On the following day he was brought before the magistrates. An examination having been made of the remaining fluid in the bottle, it was found to be eau-de-Cologne.

SUCCESSFUL REMOVAL OF TUMOURS FROM WITHIN THE LARYNX.—During the past week, Dr. Gibb, of Portman-street, accomplished the removal, with complete success, of two small pedunculated tumours, as large as peas, from the interior of the larynx, by means of the laryngeal ecraseur, with the aid of the laryngoscope, assisted by Mr. Lawson and Mr. T. Carr Jackson. One tumour grew from the anterior part of the left vocal cord, and the other from the hollow between the origin of the two vocal cords. Hoarseness and partial aphonia of twelve years' duration disappeared on the removal of their exciting cause. The patient, a gentleman aged 37, remains well in every respect, and is on the eve of a journey to the East Indies.

ZOOLOGICAL SOCIETY.—At the meeting of this Society on Tuesday last, Professor T. H. Huxley, F.R.S., Vice-President, in the chair, a paper was read by Mr. A. D. Bartlett on the "Habits of the Living Aye-Aye in the Zoological Gardens." The tendency of his observations was to prove that the food of the *Cheiromys* was not insects, but was the sweet, pulpy juices of the tree; and he detailed experiments in which he had bored holes with an auger in the soft wood of the cage, and inserted grubs or meal-worms, which the Aye-Aye made no effort to take; while on the other hand, many vegetable substances offered to it were greedily devoured. Observations were made on the subject by Professor Huxley, Mr. Holdsworth, Dr. Crisp, Mr. G. R. Waterhouse, and Dr. Sclater. Papers were also read by Dr. Buckland on "*Coronella lævis*," a new species of British snake, somewhat similar in appearance to the viper (*Pelias berus*), but of which the superficial characters differ from that species in having the V-shaped mark, which is so distinct on the viper's head, less defined. In the *Coronella lævis* the poison fangs are not developed. Live specimens of the *Coronella* were exhibited, as well as specimens in spirit, showing the pregnant female. The discussion was joined in by Professor Huxley, Dr. Sclater, Dr. Crisp, and Dr. Günther. Some other papers were read, and the meeting adjourned till November 25.

THE "MCWILLIAM FUND."—A meeting of the Committee, who undertook in July last to promote this most praiseworthy object, was held, on the 3rd instant, at the College of Physicians. Drs. Babington, Copland, Farr, Lewis, Guy, Milroy, and Mr. Propert were present. Letters from Dr. Cooke and Mr. Simon expressed regret at their inability to attend. The total amount of subscriptions received was announced to be £272 12s., being made up of sums, varying from £10 to £1 and less, and including two donations of £50 from a friend of the family, and £30 from a wealthy private gentleman. Hitherto the appeal has been addressed almost exclusively to the immediate friends and acquaintances of the late Dr. McWilliam; and the Committee, believing that very many of his Professional brethren, not only in the metropolis, but in different parts of the kingdom, would be glad to have an opportunity of testifying their respect for the memory of so eminent and upright a man, resolved that it should be more widely and extensively circulated. They propose that the fund should take the form of a testimonial to commemorate the important public services of the deceased; and they consider that the best and most useful mode of carrying this into effect will be by investing the whole of the money subscribed for the benefit of his family, with the exception only of a small sum, to be reserved for the procuring of a medallion portrait, to be placed in some suitable public building or buildings, as an enduring record of his worth and of their esteem.

SUDDEN DEATH OF ELEPHANTS.—It is undesirable, and even involves the risk of life, to work an elephant too soon; it has frequently happened that a valuable elephant has lain down and died the first time it was tried in harness, from what the natives believe to be "broken heart," certainly without any cause inferable from injury or previous disease. It is observable, that till a captured elephant begins to relish food, and grows fat upon it, he becomes fretted by work, and

that it kills him in an incredibly short space of time. Captain Yule, in his "Narrative of an Embassy to Ava, in 1855," records an illustration of this tendency of the elephant to sudden death. One newly captured, the process of taming which was exhibited to the British Envoy, "made vigorous resistance to the placing of a collar on its neck, and the people were proceeding to tighten it, when the elephant, which had laid down as if quite exhausted, reared suddenly on its hind quarters, and fell on its side—dead!" Mr. Strachan noticed the same liability of elephants to sudden death from very slight causes. "Of the fall," he says, "at any time, though on plain ground, they either die immediately, or languish till they die, their great weight occasioning them so much hurt by the fall."—*Phil. Trans.*, A.D. 1701, Vol. 23, page 1052.—*Sir J. Emerson Tennent.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The unusual demands on our space oblige us to postpone Dr. Ramskill's "Lecture on Epilepsy," and an article on "Medical Education in the University of Glasgow," until next week.

Dr. Hughlings Jackson's paper shall have early insertion.

Dr. Abbotts Smith's paper shall be inserted in its turn.

Important papers by Mr. C. De Morgan, Dr. Althaus, and Mr. T. Orton, are in the printer's hands, and will shortly appear.

J. R.—All German Universities grant Degrees in Medicine.

Junius' criticisms are well founded, but we think the matter had better be let drop.

E. T. M.—M. Bauden's "Military Hospitals," translated by Hugh; the official Blue Books about the health of the English Army in the Crimea; Chisholm's "Military Surgery."

Mayne and *Fowler.*—Dr. Mayne writes to say that he acknowledges Dr. R. Fowler's "answer to his inquiries as to his identity to be perfectly satisfactory." He still seems to retain his opinion as to the relation of the two "Medical Vocabularies."

Erratum.—In Mr. Renshaw's letter, in *Medical Times and Gazette*, November 8, *for* "1856," *read* "1836."

Cutaneous Tubercles in Pregnancy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following case, which came under my notice the other day, may perhaps be of interest to your readers, and I should be glad if you would insert it in your "Notes and Queries":—

Mrs. S., aged 30, confined for the third time on the 8th inst., states that, ever since her first pregnancy, she has been troubled with a curious skin disease. It is in the form of tubercles of various sizes, the largest the size of a hazel-nut, thickly scattered over the body, arms, and legs, but in greatest abundance on the chest; some are round and stalked, others cone-shaped and sessile. The larger ones are of a red colour, the smaller are of the natural colour of the surrounding skin, which is not altered in colour at all. The only symptom which she complains of is a violent itching; in other respects her health is unaffected. She is quite free from the disease except during pregnancy, and she states that it is aggravated about the period of quickening. Perhaps some of your correspondents may be able to offer some explanation of this singular affection, and offer some remedy for its removal or prevention.

I am, &c.

J. H.

Sir Hugh Rose's Order.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—With respect to the notice of the Commander-in-Chief's order in India, in your valuable Number of the 25th ult., allow me to say, till the Doctors are properly drilled as military officers, they are better on foot, except when marching, or when their proper place is in rear of the officer commanding, as evidently contemplated in the order. Not only are they less in their own way, but in the way of others; nor in danger of being mistaken for mounted officers, marking the points of allignment. I suppose it is not to take the power of indulgence out of the commanding officer's hands, but only the absolute right. As Assistant-Surgeon under as strict a disciplinarian as there is in the service, I never was prevented—indeed, was almost always mounted on all parades, in India; but then I was almost daily on parade, and instructed, on any change of front or position, instantly to dismount, and take a lock of the mane in the hand, till the new allignment had been effected. But fancy an ill-drilled Doctor on horseback, and the regiment at "the double," forming square! No doubt it was some awkward blunder in this way, that brought out the order. In rear of the General, or at the flagstaff, they are, of course, quite out of the way. It would not be any of the Medical Staff, but the regimental Surgeon Major, that brought out the order.

It is true, like other old hands, I do not like the new regulation by mere length of service at all. It makes the Medical altogether a Civil branch, like that of the Pay department; whereas the Army Medical department requires to be made more military, in order that it may take its proper position. Unlike the Pay or even Commissariat, the regimental Doctors run all the risk in battle, and require drill for their own safety.

I am, &c.

November 8. An Old Stager.

Astigmatism.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have of late years studiously avoided all public communications of a controversial character, but your anonymous correspondent, "Chirurgus," has taken the liberty of adverting to my name in a manner that leaves no other course open to me than to reply to him.

As far as I am aware—but I may be wrong—my communication on Professor Donders's "Researches on Astigmatism" in your impression of November 1, was the first notice of them that appeared in any British periodical. If not, "Chirurgus" will, perhaps, substantiate his statement of "the quantity of trumpeting on this subject, which has lately appeared in the Medical Journals," by giving precise references to any such Journals prior to November 1.

Hippocrates, Hooke, Aveubrugger, might successively be cited as the discoverers of percussion and auscultation; but still no one would deny that it is to the labours of Corvisart and Laennec the truly useful development of these sciences is due. So it is with astigmatism. It was discovered by Thomas Young in 1793, made the subject of a memoir by Professor Airey in the *Transactions* of the Cambridge Philosophical Society in 1827(a). In 1849, Professor Stokes published an account of his astigmatic lens. Eleven other cases have been recorded by Goode, Hamilton, Hays, and Schnyder. Neither Professor Donders, nor I for him, claim any undue originality. He distinctly states, at p. 130 of his treatise—"It is remarkable that it is nearly exclusively in English literature that we find the subject (astigmatism) treated of." But I again as distinctly state, that it is to Professor Donders that we owe the recognition of astigmatism as a frequent and common disturbing cause of vision. How little this has been hitherto known, is evidenced by the fact, that there is not a single systematic manufacture of cylindrical lenses in the United Kingdom, and that it is only after considerable delay that I am now in a train of procuring some from the Continent. I think "Chirurgus" would have done better to have first carefully studied Professor Donders's work before committing himself to such expressions as "trumpeting" and "unbecoming," the second of which expressions the Profession will, I think, rather feel inclined to apply to the first, than to my letter of November 1, which is of a strictly scientific character, not written with a view of "ignoring the labours of others," but of bringing before the Profession what I consider a very important contribution to our knowledge of the optical defects of the eye.

I am, &c.

November 10. J. Zachariah Laurence.

The M.D. of St. Andrews,

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your last week's Number I read with great pleasure a sensible, clever letter, signed "An Old Student," in answer to one that appeared some two weeks previously from an alarmed "M.D. of St. Andrews," who feared his position and that of the University of St. Andrews was at stake because only forty candidates were rejected.

I wonder what he will say when I tell him I think an M.D. Degree rather detrimental to young men than otherwise; and I will explain to him my reasons for such an assertion. In the town where I have been practising for the last twenty-five years, no less than eleven M.D.s have located themselves, all of either London, Edinburgh, or Dublin; eight out of the eleven have been appointed Physicians to the Hospital, and, of course, have practised strictly in accordance with their degree; all have been obliged to resign their appointments, many of them not obtaining more than six or eight fees in the year; they are now obliged to practise as Surgeons, assuming that nondescript kind of appellation, Dr. ——, Surgeon. I can also inform our friend, the "M.D.," that of the two the Surgeon is the most influential and successful; and I perfectly agree with an "Old Student," that a Practitioner having the M.D. degree is in no better position than a Surgeon, which I have no doubt the M.D. of St. Andrews will discover. I purpose retiring from the Profession in a few years, and should like the M.D. degree; but the great distance and time occupied, the inconvenience of leaving my practice, and the numbers rejected, deter me. I have yet to learn why St. Andrews, so far away, should be selected as the only place where a degree can be obtained. It ought to be conferred upon a candidate holding a good and respectable position in his Profession, having practical knowledge and experience, and able to show both College and Hall diplomas.

I am, &c.

November 11. An Old Surgeon.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As one of the 130 recent graduates who have been made the subject of such varied comment, allow me, in as few words as I can, to state the case, and to make a few general observations upon it.

1. All that passed were men possessing, at least, one qualification.

2. Many were doubly and some trebly qualified.

3. Many had, like myself, matriculated in the London University, and, but for the stringent regulations of that Institution, might, ultimately, have graduated there.

4. Of the total number of candidates presenting themselves for examination, a fourth were rejected.

That the St. Andrews Senatus admits, as candidates for their degree, qualified men as such, is so wise and sensible a course, that it is a disgrace to this country that there is no Royal Medical College, or other similar Institution, where the Medical man, who has been some years in practice, and desires to take a degree, can present himself for a fair, sound, practical examination. It is idle to instance the University of London; for its divisions and subdivisions, and even changing regulations, are alone sufficient to bank the Practitioner, who, harassed with all the cares of life, cannot be for ever reading, and who, after all, runs the risk of the invidious second division, which does him, in his own neighbourhood, more harm than if he had let degrees alone altogether. How much healthier a system it would be if there were one Board where the general Practitioner might become qualified; and Universities where a first-class scientific degree might be conferred, requiring residence and certain years of studentship; and, lastly, a College at which all legally qualified Practitioners, after a certain number of years in practice, should be eligible to present themselves for an M.D., without residence or unnecessary delays.

One point more. I understand it is a recommendation of the General Medical Council that no degrees in Medicine shall be conferred unless the candidate shall have previously taken a degree in Arts. In this there would be less unfairness, if the authorities would also require all who wish to take a degree in Arts, to previously get one in Medicine; but, I am afraid, our clerical friends would object somewhat. That a Medical man should have some amount of general and classical education, is right and just; and, moreover, he will take care, now-a-days, if a wise man, that he

(a) Both these authors are referred to by me in my letter of November 1.

has it; but, that he is to be a walking encyclopædia, with half the letters in the alphabet after his name, as some seem to desire, is absurd, and, even if it could be done, would be a pity; since the time spent in getting B.A. LL.B., etc., etc., had far better have been spent, for society's sake, on practical Medicine. Of course, for a professor the case is different; and hence we think that those whose minds have a special bias towards one subject should have, as above indicated, an opportunity of getting a special scientific, first-class degree. With the ordinary Medical man the case is far otherwise; and, when all is done, it is certain, that not by his qualifications, or his medals, or his honours, but by his intuitive tact, and by his practical ability in treating disease, must every man be weighed in the balance, and alas! for him who shall therein be found wanting.

I am, &c.

M.D. St. Andrews.

Poor-law Medical Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Some months have elapsed since I last asked permission for space in your Journal to address the Poor-law Medical Officers, but I have only recently been able to procure the second Report of the Select Committee on Poor Relief for 1862. In that volume the evidence of several gentlemen is recorded, and amongst them appears the name of Mr. Cane, one of the Inspectors of the Poor-law Board, who boldly stands forward as the champion of the present system of the Medical relief for the poor. This gentleman's evidence occupies nineteen pages, nine of which are devoted to observations upon the evidence laid by me before the Select Committee of 1861. He says (after 3892):—"That statement (Mr. Griffin's) contains many allegations, evidently made under most imperfect knowledge of facts. The tables also contain many serious inaccuracies, which lead to conclusions that are fallacious and deceptive, and calculated to produce highly erroneous impressions on the question which they profess to illustrate. Mr. Griffin claims to represent, if not the entire body, yet a very large proportion of the Medical officers in England and Wales, and, therefore, it is of the more importance that the 'statements' and 'tables' should be explained and corrected, if, as I believe, they are open to correction." At page 48, Mr. Cane says:—"In several cases in which it is alleged by Mr. Griffin that there has been a reduction of salary, there has been no alteration; but this misapprehension is caused by his having misquoted the returns." At page 46, Mr. Cane says:—"The returns relating to the Retford Union have also been misquoted. Instead of there having been a decrease of £694 in the salaries of the Medical officers, as appears by this table, there has been an increase of £65." My answer to this is, that "Thetford" should have been written "Retford,"—the "Th" for "R." Had I intended naming the Union mentioned by Mr. Cane, I should, at least, have called it by its right name, which is *East* Retford; there being, in fact, no such Union as Retford. In the 1843 Return, there are only four Unions paying upwards of £1000 each to their Medical officers, and, therefore, Mr. Cane could have had no difficulty in discovering the one to which I referred.

There are other cases of a similar kind, but this is sufficient to show the *animus* of Mr. Cane in his evidence before the Select Committee.

Mr. Cane, after running through many of the propositions laid by me before the Select Committee, concludes his evidence with these most extraordinary expressions:—"The organisation of these changes, their supervision and control, can, however, in his (Mr. Griffin's) judgment, be only entrusted to a member of his Profession. Accordingly, he would compel the Poor-law Board to appoint a 'Medical Secretary,' one of whose qualifications would be that of his having himself been a Medical officer, and this functionary would be empowered to adjudicate in all matters having reference to 'Poor-law Medical Relief,' subject only to the confirmation of the Poor-law Board. It will, I think, be almost unnecessary to offer any detailed comments upon such propositions as these; but if I may be permitted to express my general views, I should say that, if Mr. Griffin's suggested alterations of the law, and other regulations relating to Medical relief, were carried into effect, they would enormously increase the public expenditure, wholly demoralise the labouring classes, and impoverish the rate-payers of every Union to which they were applied. Their effect, too, upon the Medical Profession would be calamitous. Numbers of persons would enter that Profession solely with the view to be elected to one or other of the 3000 or 4000 highly-favoured offices which Mr. Griffin would create. A Profession, which, by some, is thought now to be overstocked, would become more overstocked still, and Medical men would increase and multiply, and competition would be stimulated and carried to such an extent, that but a very limited amount of remunerative practice would eventually fall to any Medical Practitioner who did not succeed in being elected a Medical officer of a Union."

Mr. Cane's evidence is certainly very amusing. Only fancy Medical men increasing and multiplying upon the profits arising from an average payment of less than 5s. per patient for attendance and finding medicines for an illness, the average duration of which is more than five weeks. My evidence was laid before the Committee in 1861, and yet the lucrative appointments it offered, according to Mr. Cane's view, is met this year by a decrease in the number of Medical students entering the Metropolitan Schools by 183 less than in 1860.—(*Lancet*, November 1, 1862.)

Mr. Cane certainly forms a very low estimate of the Medical Profession; it is, therefore, high time that we should have a Medical head at the Poor-law Board who can appreciate our requirements. Mr. Cane says my plan would "wholly demoralise the labouring classes;" but, surely, fixing the rate of wages at 10s. per week as the highest earnings to entitle a poor man to Medical relief at the expense of the Poor-rate, cannot have that effect. In truth, I think the rate proposed is too low, but it was fixed at that sum, so that the existing clubs might not be endangered. Does Mr. Cane fancy the poor are so fond of physic that they would sham illness for the sake of getting it? The very idea of "demoralising the labouring classes" by giving them, when ill, Medical relief, is preposterous. Mr. Cane says, my "propositions would impoverish the rate-payers of every Union;" a statement so absurd that it scarcely needs refutation; and were it not stated by an officer of the Poor-law Board, it might be passed over without comment; but as there is a table in existence, which was sent by me to the Poor-law Board, and to all the subscribing Poor-law Medical Officers, I will at once say that the calculation then made gave £298,984 for the payments to the officers with half mileage only, and if the latter, £64,606, be doubled, it makes a total of £363,592; however, the present number of cases will, undoubtedly, be reduced; but there are other advantages proposed by my plan, all of which, if carried, might bring our receipts up to, perhaps, £400,000 a-year, or £100,000 less than the sum named by Sir John Trollope, in the House of Commons, a sum which, I think, would not "impoverish the rate-payers," but the reverse, as improved sanitary arrangements and a thoroughly good system of Medical relief would do much to lessen the general pauperism of the kingdom.

This letter gives but a brief sketch of Mr. Cane's evidence, the whole of which requires to be carefully gone through, the statements therein thoroughly sifted, and the truth laid before the Committee, otherwise his very erroneous evidence may be taken for sound doctrine, and, as a consequence, the present system of Medical relief perpetuated. I have about £30 of last year's subscription lying in the bank, but I shall need much more if I am to lay bare Mr. Cane's sophistry; I, therefore, trust my Medical friends will not forget that I am open to receive their subscriptions, without which my pen alone will be powerless. Next year there must be a new Poor-law Bill; we must, therefore, not let the present opportunity pass, but do our best to convince the Select Committee there is need of reform, notwithstanding the opposite opinion of a Poor-law official.

I am, &c.

12, Royal-terrace, Weymouth, November 8. Richard Griffin.

COMMUNICATIONS have been received from—

J. R.; Mr. F. Jordan; Dr. McCall Anderson; Dr. Quinlan; Staff-Surgeon Hunter; An Old Stager; Dr. Ogilvie; Mr. Soelberg Wells; Dr. Castell; Dr. W. S. Scholefield; Mr. A. T. Carson; Mr. T. Stephens; Dr. G. Milroy; Dr. Herman Weber; Dr. Abbotts Smith; Mr. Coleman; Mr. H. Bird; Dr. Whitehead; Dr. Henry; Dr. Markham; Mr. G. Taylor; E. T. M.; Dr. Mayne; Dr. James Paterson; Mr. Parker; Dr. Leared; Dr. Willis; Mr. Terry; Mr. Laurence; Dr. Fowler; The Secretary of the Ethnological Society; Dr. R. P. Cotton; T. J.; A Subscriber; Dr. R. Venables; The Secretaries of the Medical Society of London.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 8, 1862.

BIRTHS.

Births of Boys, 921; Girls, 911; Total, 1832.
Average of 10 corresponding weeks, 1852-61, 1670·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	617	690	1307
Average of the ten years 1852-61	579·8	546·4	1126·2
Average corrected to increased population..	..	..	1239
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	1	14	4	5	6	4
North ..	618,210	3	10	14	3	9	6	9
Central ..	378,058	..	6	19	3	2	12	4
East	571,158	7	17	15	..	3	22	7
South ..	773,175	3	27	27	2	9	8	4
Total.. ..	2,803,989	13	61	89	12	28	54	28

APPOINTMENTS FOR THE WEEK.

November 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

Metropolitan Association of Medical Officers of Health, 7½ p.m. Meeting.

17. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures—Lecture I. "Private Hygiene: Man's Intrinsic Predisposition to Health or Disease; and the Climateric Action of Hygienic Modifiers on the Vitality of his Organism." By James Bird, M.A., M.D., F.R.C.P.

18. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Hunterian Society, 8 p.m. Meeting.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

21. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society of London, 8 p.m. Mr. J. R. Lane, "On Vesico-Uterine Fistula."

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—Removal of Dead Bone from Great Toe; Removal of Tumour from Breast; Removal of Growth from Tongue; Excision of Testicle; Vesico-Vaginal Fistula.

TOWLE'S CHLORODYNE.

FROM IMPROVED FORMULA OF DR. OGDEN.

REGISTERED.

Dose, 5 to 20 drops.

PRESENTING THE ADVANTAGES OF

KNOWN COMPOSITION AND UNIFORM MIXTURE, COMBINED WITH MODERATE PRICE.

IMPORTANT LETTER, PUBLISHED BY PERMISSION.

From Dr. C. KIDD, Author of standard works on Chloroform :—"Sir,—I think if you would advertise your 'Chlorodyne' more than you do, you would help to beat the other *secret* compounds out of the market. Of the value of Chlorodyne given internally, I have no doubt; it appears to me in that form an anodyne *sui generis* that no other anodyne can approach. I have resolutely opposed the use of *secret* compounds of Chlorodyne, and in every way I can encourage the use of the 'Chlorodyne' (if we must have it at all) that is made by you, as you state that its composition is known. Many Medical men think with me and recommend your compound, but will never prescribe a *secret* remedy. (Signed) CHARLES KIDD, M.D., and Surgeon, Sackville-street, Piccadilly, London, April, 1862."

Sold in ½oz. bottles, 1s., 1oz. 1s. 6d., 2oz. 2s. 6d., 4oz. 4s. Prepared by A. P. TOWLE, Chemist, &c., Ardwick, Manchester. May be had from Barclay and Son, Farringdon-street; or through any Wholesale House.

CHLORODYNE.—R. FREEMAN, Pharmaceutist, Kennington-road, London, S., informs the Profession and Trade that he has for years made and extensively supplied CHLORODYNE, in 1oz. and 4oz. Stoppered Bottles, at 1s. 6d. and 5s. each. He guarantees it to be uniformly and properly prepared and superior to any other makers', though their charge be ever so exorbitant; and he is glad to find the low price which he sells it allows the Profession to use it in common practice and public institutions, so that its extraordinary beneficial effects are enjoyed by the poorest sufferers. R. Freeman almost daily receives letters from Members of the Profession, and also the Trade, who speak highly of his Chlorodyne. He publishes the following by permission :—

"I duly received your sample of Chlorodyne, and I liked it so well that I ordered more through my Wholesale Druggist. I think it in every way as good as any I have used, and it has the recommendation of being cheaper —" B. J. BOULTON, M.D., Surgeon Horncastle Dispensary, &c., Horncastle."

"I have administered to several of my patients your Chlorodyne, and I consider it a valuable remedy. It has succeeded perfectly in those cases in which I have used it. In its action it is uniform, and in its effects most efficacious.

"DAVID EASTON, M.D., Medical Officer Rhins of Galloway Poorhouse, &c., &c., Stranraer, Wigtonshire, Scotland."

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"C. SWABY SMITH, M.R.C.S.E., Surgeon to the Berks and Hants Extension Railway Works and Pewsey Union, &c., &c."

"I have had several parcels of your Chlorodyne, and the Medical men who have used it find it equally efficacious with that which is double the price, both having been tried on the same patients with similar results. "W. GRAHAM CARR, Pharmaceutical Chemist, Berwick."

Pulvis Jacobi ver, Newbery's,

IS THE ORIGINAL & GENUINE, WAS ESTABLISHED A.D. 1746,

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TRADE MARK REGISTERED 1858.

DR. J. COLLIS BROWNE, M.R.C.S.L., Ex-Army Medical Staff, after many years' study and experiment, succeeded in discovering, in 1846, a remedy which should possess the property of an *Anodyne, Sedative, Diaphoretic, Antispasmodic,* and *Astringent.* For this new remedial agent he was obliged to find a name, and *coined* the appellate "CHLORODYNE," a word unheard of and unknown until he introduced it, in 1856, for public use *through* J. T. DAVENPORT, PHARMACEUTIST 33, GREAT RUSSELL-STREET, BLOOMSBURY-SQUARE, LONDON, *to whom he confided* THE RECIPE AND ITS MODE OF PREPARATION, *never having divulged or published the secret of its formula.*

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The great success attending the use of this extraordinary preparation has induced unprincipled parties to manufacture compounds in imitation, calling them after the same name. Medical Men are advised of this dishonourable proceeding, so that they may be guarded against the culpable practice of introducing substitutes in lieu of CHLORODYNE, causing thereby uncertainty of action in the treatment of the patient by the Physician, probable disaster to the sufferer, and deception in the preparation.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON EPILEPSY,

DELIVERED AT

The Hospital for Epilepsy and Paralysis.

By J. S. RAMSKILL, M.D., etc.

Assistant-Physician to the London Hospital; Physician to the Hospital for Epilepsy and Paralysis.

Lecture III.

Gentlemen,—The cases in which an external aura forms the premonitory symptom of a fit are comparatively few, to those in which some internal commotion initiates the attack. The seat of such aura I believe to be either—1st, in the heart, evinced by palpitation, or a feeling of cessation of action in the organ. 2nd. The stomach, œsophagus, or colon, giving rise to sinking, some commotion, accompanied by borborygmi or not; a feeling of coldness; of spasm, or contraction rising up the œsophagus; globus hystericus, or some peculiar sensation, not expressed by contraction, rising rapidly, likened generally to a gas, and reaching to the head, when loss of consciousness instantly follows. All these varieties are referable to functional lesion of exeitor motor nerve, associated or followed by disturbance of ganglionic, sensitive, or motor nerves connected with, or seated in, the organs mentioned. Such cases are more difficult of treatment than those mentioned in a former lecture, inasmuch as they are beyond the reach of those mechanical remedies applieable to all cases when the aura or premonitory symptoms are external to the body. The treatment, however, is to be grounded on the same principles; that is to say—the disease is not to be treated as one seated in the organs where the commotion arises, or is suspected to arise, but only called into action by this commotion. The true seat is in the excito-motory centre; it consists of increased reflex excitability in this centre, with or without increased reflex force. Remembering this, it will be obvious that we may advance considerably in the way of curing epilepsy without stopping the fits; that is to say, that we may diminish considerably the reflex excitability, but the exciting cause, at a distance, may continue, and increase in intensity, and the number of fits may not be lessened; or the result may be equal to diminished intensity or frequency of the exciting cause, plus a more sensitive excitor-motor centre; but the latter is obviously the worst pathological condition. I apprehend an exclusive attention and treatment to one only of these extremes has been the cause of so much failure attending the cure of epilepsy. As we have clearly made out to ourselves that there is a double object to be accomplished in the employment of medicine, let us ascertain whether there are medicines, or combinations of medicines, capable of diminishing or annihilating the exciting cause, and, at the same time, of restoring the excitability of the cerebro-spinal centre to a normal condition.

R. P., aged 39, by trade a tailor, has been subject to fits eleven years; married; has three healthy children, youngest is three years old. When his father was about 36 years old he had three or four fits. He enjoys good health now. Mother never had fits, nor is she in ill-health. No history of fits in other members of the family. The first attack occurred in the night, about two years after marriage; could not trace it to any cause; was then, and has been always, a steady man. It had no reference to sexual excitement. For the first few years had a fit at intervals of eighteen months; they increased very gradually until the last year, when he has had an attack every month. They have all happened in bed until the last three. He always screams, sometimes bites his tongue, rotates the head to the left side. Has no premonitory symptoms except a general restlessness, mental and bodily. On close questioning I find he has lately experienced occasional attacks of *petit mal*. After the fit he sleeps some hours, and then is invariably sick; the sickness is not accompanied by prolonged nausea. It comes on about three or four hours after a fit; he generally expels remnants of a former meal; experiences, also, pain at the occiput; thinks it the result of straining whilst vomiting. After the last few fits has had delusions of slight character. Between the fits experiences heaviness of head, not headache; sense of hearing has become more dull, apprehension slow, memory bad, not very bad; he is giddy at times; no other inter-paroxysmal phenomena of note. He is a dark-complexioned man, thin, muscles tolerably firm, and pulse full, but easily compressible; pupils normal; complexion tolerably healthy. Has occasional pyrosis and constipation.

May 11, 1860.—℞. Pulv. bismuth subcarb. gr. v.; ammon. sesquicarb., gr. iij., ex infus. rhei bis die. To have solution of nitrate of silver (ʒj. to ʒj.) applied to the larynx twice weekly, and the shower-bath every morning.

26th.—Had a fit last night in bed, attributes it to over-fatigue. It is fourteen days since the last fit. In addition to the other remedies, to have the ferrum candens applied to each side of the spine, opposite the last cervical and first dorsal vertebræ.

June 8.—Has had a fit every Friday for the last three weeks; very few attacks of *petit-mal;* to continue the application of nitrate of silver to the larynx, and the shower-bath. Ext. bell., gr. ½, bis die; dec. aloes co., ʒj, pro re nata.

14th.—Fits increasing in number, decreasing in severity. Same treatment.

28th.—One fit only. The same treatment.

July 6.—No fits. Belladonna increased to quarter of a grain.

20th.—No fits. Sight slightly affected, throat dry. The same treatment.

April 5, 1861.—No fits for nearly nine months until last Sunday; attributes it to over excitement; his children and wife have been ill all the winter, and the latter was only just declared out of danger. The fit occured in the afternoon, had not eaten largely, nor anything unusual during the day. The fit lasted only a few minutes, did not sleep, and was not sick after it. It was different to any former attack. It began by a feeling of agitation, in the legs mounting up to the arms, and finally reaching the head, when he lost consciousness. The belladonna was increased to a dose of a third of a grain, and the cauterisation of the larynx, which had been omitted for some months, was again resumed. He came to the Hospital once a fortnight, and, after two months' freedom from fits, the belladonna was diminished to the dose of a quarter of a grain. Up to the beginning of this month, when I last saw the patient, he had experienced no return of the fits. The interval of freedom is now eighteen months. He has recovered his former activity of mind and body, memory is restored, and he came specially to ask about the propriety of giving up medicine altogether. Now, when a new patient comes and gives a detailed history, it is the best plan to try and imagine out the probable condition of the nervous centres—I mean their present pathological condition. At first sight the attempt would seem hopeless, but it is not always really so, and the habit is valuable, since it often conduces to an improved treatment, and to a successful result. What are the usual pathological conditions found on post mortem examinations in epilepsy? If the case be an ordinary one, and not occasioned by organic disease, we shall find some of the changes mentioned by Shröeder Van der Kolk. He says, in all dissections of the medulla oblongata in epileptics, whether death took place in or out of a fit, he met with great redness and vascular turgescense in the fourth ventricle, penetrating into the medulla oblongata, sometimes to a considerable depth. Transverse sections through the whole medulla oblongata, from beneath the pons Varolii to the inferior extremity of the corpora olivaria, exhibited the part in the vicinity of the fourth ventricle of a much darker colour, usually containing some more distended vessels, which then run, either in the course of the hypoglossus, into the corpora olivaria, or in the course of the vagus, or accessory, or in both. Where the degree of redness was slighter, it was commonly confined to the posterior half of the medulla. In most cases, however, the hyperæmia extended into the corpora olivaria, which were often furnished with larger blood-vessels. Thus, also in the raphê, dilated blood-vessels were almost always visible. After he had discovered the close connexion between the corpora olivaria and the hypoglossal nucleus, he found dilated blood-vessels exactly in this course, in the first epileptic patient whose medulla he examined with the microscope. In some cases, the diameter of the capillaries in course of the hypoglossus was considerably over that of those in the track of the vagus, and he connected this preponderance in diameter of the capillaries, with the fact, that such patients had invariably bitten their tongue during the fits. On the other hand, he discovered that in a patient who had never bitten his tongue, but in whom the

respiration was greatly disturbed, the vessels in the course of the vagus were much larger than those in the course of the hypoglossus. All the epileptic cases in which I have had an opportunity of examination after death, have borne out the truth of Professor Van der Kolk's statement in all particulars, or in part. We may find other varieties of lesion in the same subject, but this vascular lesion is the only constant one. It may be, and often is, associated with hardening or softening, or effusion of albuminous fluid, the immediate or remote results of intense congestion during the fit, and of increased, although faulty, nutrition, between the attacks.

Other post-mortem appearances will depend on the occurrence of accidental complications. When associated with insanity, we may discover signs of inflammation of the membranes and grey matter, or of changes closely allied to inflammation; or we may observe, in very chronic cases, signs of degeneracy, pallor, softening, induration, atrophy, watery effusion, or altered condition of bone, hypertrophy, spiculæ, malformation, or extraordinary developments of part of the sphenoid. But, as I before stated, the only constant phenomena are those relating to the circulation in the neighbourhood of the cerebro-spinal centre. In the recorded cases, where, after a careful examination, not any disease of brain was said to have been found, without impugning the accuracy of the observer, I would say that, in such cases about which I have made inquiries, it was found the microscope was not used. I need hardly remark, that in the investigation of disease in the tissues of the brain and spinal cord, an examination without using the microscope must, for obvious reasons, be utterly valueless.

In a recent case of epilepsy, where there have been few fits, and where previous history (as of syphilis), congenital malformation, or peculiarity of conformation of the skull and palate, or strong hereditary history, do not point distinctly to something more, we can at first only suppose an increased supply of blood to the cerebro-spinal centre, increased nutrition and chemical change, and to their results, increased function, *i.e.*, increased reflex excitability and force; but it is not necessary to suppose a dilatation of vessels which cannot contract, or which do not return to their normal condition soon after a fit. After a time only, or after very severe attacks, need we suppose permanently distended vessels, effusion of albuminous matter, irregular nutrition, hardening or softening of tissue. I have seen local arachnitis give rise to epileptiform convulsions by implicating the branches of the fifth distributed to the membranes. But the treatment of a case of acute epilepsy and of arachnitis, causing epilepsy secondarily, is very different, and the same remark applies to the very common forms of syphilitic disease of dura mater, giving rise to epileptiform convulsions. Without the habit of imagining the distinct probable pathological condition in each case, these different forms of diseases are easily confounded, special symptoms overlooked, and a wrong treatment adopted. Now, the interparoxysmal phenomena are those by which we must chiefly judge of the pathological condition of the circulation and brain tissue in an epileptic. These phenomena are those which belong, first, to mental and emotional changes, changes in memory, power of attention, of apprehension, recollection, ideation, and control of emotion; secondly, those which are sensational,—as headaches, vertigo, muscæ volitantes, tinnitus aurium; thirdly, motorial, which include clonic and tonic spasm, paralysis; fourthly, organic,—as nutrition, temperature, and strength. The consideration of combination of, and relation between, these phenomena in any case connected with the history, the premonitory symptoms, and the special phenomena and sequelæ of the attacks themselves, will guide us, if fairly interpreted, to a fair judgment as to the pathological condition of the brain, and the cerebro-spinal centre; and the treatment will be always the more difficult or hopeless in proportion to the duration of the epilepsy. Constant periodic tumult in the circulation, circulation of poisoned blood, pressure by congestion on the cerebral tissue, effusion into it of albumenoid fluid, must end in changes of appearance and of structure in the parts where such activities are in progress. To return to our case of R. P. I do not think, because the patient's father had three or four fits when about 38 years of age, that we can infer any hereditary tendency. The nature of the fits cannot be made out, they may have been syncope; for the patient cannot give us any particulars. He is not certain about the presence or absence of convulsions. We have no history of fits in childhood, none during any leading period of evolution, as teething, a very common circumstance in hereditary epilepsy.

The first fit commenced late in life, at a time common in epileptiform convulsions from syphilis, or from those arising in the course of early organic disease of brain. There is no history or symptom of syphilis, and none leading to the probability of organic mischief, no slow pulse, fixed pain in a particular part of the head, no cerebral sickness, no cerebral respiration. The aura or premonitory symptoms were those arising from a general disturbance—no great amount of it—in the general functions of the brain. The only facts occurring in the fit to be particularly noticed were those usual ones arising from especial irritation of the accessory, vagus, and, occasionally, hypoglossal nerves, viz., twisting of head, scream, and respiratory trouble, and, occasionally, of bitten tongue. The sequelæ were not remarkable, a moderate amount of coma and vomiting, a probable result of irritation of another branch of pneumogastric. The occurrence of attacks of *petit-mal* may be attributed to increased susceptibility of the cerebro-spinal centre, slight stomachal irritation being sufficient to cause reflex action on that part of the sympathetic supplying the blood-vessels of the brain—insufficient to excite and propagate the irritation downward, to issue in the whole phenomena of a full fit. The mental and emotional symptoms are such as we could only expect from repeated congestion of brain and repeated disorders of circulation, such as would naturally result from frequent attacks of *petit-mal*, and occasionally of *haut-mal;* the same may be said of the sensational group of symptoms. There were no motor aberrations between the fits, nor organic derangement of any importance. Our summing-up of the case, then, would be that, from some unknown cause, a special excitability of reflex centre was set up; a most common cause is excitation of sexual organs, which the patient denied to exist, or to have existed; that, uncontrolled by any attempt at treatment, this excitability became perpetuated and increased; that, at length, slight causes, which, at an early period, would not have excited the whole cerebro-spinal centre into action, did so with increasing facility; and that when, perhaps, the exhausted vital condition in the centre prevented the development of a full fit, the stomachal irritation was equal, by reflex action, to the production of *petit-mal.* The first object in treatment was to subdue the irritation supposed to arise from the stomach, and bismuth was given for that purpose. As a result, the attacks of *petit-mal* diminished, but the full fits became more frequent. I do not find this an uncommon sequence: it appears as if the centre, being less exhausted by the smaller attacks, becomes more equal to the development of the general ones. Cauterisation of the larynx was ordered, and steadily continued, and belladonna administered. The result was a gradual diminution of reflex excitability and of reflex force in the cerebro-spinal centre, and, as far as I can judge, complete restoration of the patient's health. Concerning the treatment by, and action of, belladonna, I will give you, in a short compass, the results of my experience in its use. First, you must not always, nor even usually, look for immediate and palpable beneficial results. The number of fits at first may not lessen in equal times; very frequently, the reverse obtains; and you may expect, for three or four weeks after commencing it, even in the most appropriate cases, a complaint, that the patient gets worse; but, after six or eight weeks, if any amelioration occur, it will be decided and progressive. At first, the dose should be very small, and gradually augmented until the pupil shows signs of its action, and the patient complains of both alteration in sight and dryness of throat. Having obtained this result, and maintained it for some weeks, the dose may be gradually diminished; but its effects on the eye and throat are not to be so diminished as to become imperceptible to the patient, but only so far lessened as to cease causing absolute discomfort. The other toxic effects of belladonna are wholly uncalled for. Patients vary greatly, both as to susceptibility in the action of the drug, and in other respects. The annoyance as to dry throat and disturbed vision, which, at the expiration of a month, may be said to be unendurable, will now and then cease, the dose being the same, or even slightly increased; but I may remark, these cases always improve most rapidly. I prefer to give the drug in an eighth of a grain dose three times, or only twice, daily, for a week; then a quarter of a grain for fourteen days; a third for the next fourteen days, at which time its physiological action will in most cases be manifest. I think it wise to halt at this dose for two months or three months, slightly increasing the dose if the patient shows diminished susceptibility to its influence,

decreasing it if the reverse happens, and then gradually dropping it to the quantity first administered. I have given as much as four grains for a dose, but very rarely. I think it imperative to say, that I have never been able to give in epilepsy the large doses which Dr. Fuller has succeeded in administering in other diseases of a convulsive character. In this remark I am supported by the authority of my colleague, Dr. Brown-Séquard, who has arrived at the same conclusion. One objection to the use of belladonna, when you cannot see your patient at regular intervals, arise from its uncertainty of strength and corresponding difference of action. To those who wish to use a preparation of uniform strength, having similar and, in some cases, improved properties of belladonna, the salts of atropia are now easily procurable. The best of these is the valerianate of atropia; the commencing dose, a hundred-and-twentieth of a grain. Hitherto, I have preferred belladonna, having had a strong desire to find what it could, and, if possible, what it could not, accomplish in the treatment of epilepsy. It is right to say there are different methods of administering belladonna. Trousseau gives a centigramme of the extract and an equal quantity of the powder of belladonna for the first month, in the evening of each day. He gives it at this time because of the frequent noeturnal character of epilepsy, and partly because of the disagreeable effect on the sight and throat during its early administration. During the second month he gives two such pills at the same time, and during the third month three pills. If, at the end of six or nine months, the frequency of the fits is decreased, he increases the dose. He asserts that, of 120 patients, he has cured twenty. A most important question now arises—Do we know anything of the nature of the action of belladonna beyond the empirical results obtained in treatment? If a drop of solution of belladonna or atropine be dropped on the foot of a frog properly prepared, and fixed on the field of a microscope, the blood-vessels will be seen to contract, and they will remain in this condition for a considerable time. For comparing the action of opium, a solution of the latter, similarly prepared, was applied to another part, and the vessels were immediately dilated. Now, belladonna, internally administered in medicinal doses, causes, first, dilatation of pupil, with dimness of vision; secondly, dryness of throat and difficulty of swallowing; thirdly, increased tone of involuntary muscle; fourthly, it relaxes the bowels, and cures incontinence of urine, arising from weak sphincter vesicæ. As dilatation of pupil is one of the earliest phenomena, let us see if we can account for it. There are two sets of fibres in the iris. It is well known that the sympathetic is the motor nerve of the external longitudinal fibres of the iris, which radiate from the centre to the circumference. The branch of nerve supplying these fibres comes from the cervical ganglia of the sympathetic. Excitation of this nerve, from any cause, will cause a contraction of these longitudinal fibres, and a corresponding dilatation of pupil. There is also a circular set of fibres immediately surrounding the margin of the pupil. This set is under cerebral control; that is to say, its motor supply comes from a branch of the third nerve. Any irritation in the brain, or along the trunk of the nerve, or an excitation by light on the retina acting in a reflex manner, will stimulate this branch of the third to action, and cause contraction of pupil.

But we may have dilatation of pupil without increased action of the sympathetic; it may be acting normally, then the third nerve must be supposed deficient in power. This is a common result observed in compression of brain. On the other hand, contraction of pupil may be present without abnormal activity of the third being necessarily supposed. This condition is invariably produced by section of the sympathetic in the neck. Dilatation of pupil may, in short, depend on the action of the sympathetic being in excess, or in diminished power of the cerebral nerve. In epilepsy it is easy to observe, from collateral symptoms, and the general condition of the patient, that dilated pupil, when it exists, which is much rarer than a normal condition, is usually caused by an active sympathetic overpowering the third nerve. The same dilatation may be observed in most convalescents after acute disease, and in most affections involving extreme debility; but here it would be more correct to say that the dilatation was rather the effect of a depressed condition of the third cerebral nerve accompanying a normal sympathetic, than of an active sympathetic accompanying a normal condition of the cerebral nerve. I have said the branches of the sympathetic nerve which go to the iris come from the cervical sympathetic. Dr. A. Waller, with Professor Budge, have made experiments, which seem to prove that the nerve fibres of the cervical sympathetic, which go to the iris, originate from the spinal cord between the sixth cervical and the fourth dorsal vertebræ. Dr. Brown-Séquard has ascertained that the origins of the fibres of the sympathetic going to the iris are still more extended. I have mentioned that division of the cervical sympathetic allows the uncontrolled third cerebral nerve to contract the iris. Dr. Brown-Séquard has shown that a section of the spinal cord, as high as the level of the fifth cervical, or as low as the ninth or tenth dorsal vertebræ, affects the iris in the same manner, but in a less degree than section of the sympathetic. On the other hand, Schiff has shown that some of the fibres animating the iris ascend the cervical part of the spinal cord, and most probably go up to the medulla. I may also say here that the sympathetic is the motor nerve of the blood-vessels, supplying various parts of the head. It is especially interesting to know the origin of these vaso-motor nerves, especially in relation to loss of consciousness, the initial movement of a fit of epilepsy, and also in regard to the pathology of the *petit-mal*, as well as the great light such knowledge would throw on the action of belladonna in epilepsy. Dr. Brown-Séquard discovered some years ago that the motor nerves of the blood vessels going to various parts of the head, come out chiefly from the spinal cord by the roots of the last cervical and first and second dorsal nerves. He thinks, however, their real place of origin to be partly the spinal cord, partly the higher portions of the encephalon, but chiefly the medulla oblongata and the neighbouring parts of the encephalon. In the case of R. P. it will be remembered the ferrum candens was applied to each side of the spine, opposite the last cervical and first dorsal vertebræ. The reason will now be apparent. The vaso-motor nerve fibres are able to contract the blood-vessels directly, when excited. We hope, by frequently cauterising the tissues opposite the seat of exit of these nerves from the spine, to effect some change in the nutrition of the parts to which these nerves are distributed. We can now understand the nature of the action of belladonna in producing dilatation of the pupil; and from its effect on the iris we can deduce a strong probability of the nature of its action in epilepsy. It is a stimulant to the sympathetic, the motor nerve of the blood-vessels, and it is only on this supposition we can account for the other physiological effects of the drug.

I would add, although experience shows belladonna is one of the most powerful contractors of the blood-vessels of the spinal cord and its membranes, it has a comparatively feeble action on those of the brain. I speak of its administration in medicine—not in poisonous or fatal doses. Hence arises its extraordinary adaptability in epilepsy, where we have dilatations of vessels or turgescence in the medulla and its neighbourhood: of its still more marked efficacy in inflammation, and congestion of the spinal cord and its membranes; as well as of its comparative inutility (administered alone) in those cases of morbid activity of brain, connected, as we think, with more or less congestion of grey matter, in some forms of incipient insanity, associated with sleeplessness and suicidal tendency, as well as in some other cerebral diseases.

ORIGINAL COMMUNICATIONS.

CASE OF

RAPID SPONTANEOUS CURE OF POPLITEAL ANEURISM—WITH REMARKS.

By CAMPBELL DE MORGAN, F.R.S.
Surgeon to the Middlesex Hospital.

Amongst the many subjects of pathology about which we are still sufficiently ignorant, one of no small interest is the cure of aneurism. What is it which determines the very different tendencies to coagulation which these and other blood tumours manifest? In one case compression may be kept up for weeks or months, the pulsation during that time being, for the most part, in some degree, controlled, and yet it may fail to cure the disease; or the pulsation may gradually diminish; or it may cease rapidly, at a time when one begins to despair of cure from the small progress made towards consolidation after a long and troublesome treatment. In another

case, under a pressure not more effectual to all appearance, a cure will ensue even in a few hours. Much light may be thrown on the subject by the careful observation of the forms of spontaneous cure, which not unfrequently occur; and the following case is so remarkable an instance of rapid, spontaneous cure, and opens so wide a field for speculation as to the cause of the arrest of the pulsation, that it deserves to be recorded. So far as I can learn, it is unique; for, though there are many known instances of cure taking place under circumstances very similar to those which were present in this case, yet I have failed to meet with one in which the cure was so remarkably rapid—or, at least, in which the opportunities for observation were so favourable—as in the present example :—

Case.—George H. was admitted into the Middlesex Hospital, under my care, on January 4, 1862. He was a tolerably healthy-looking man, rather below the average height; his muscular system was well-developed. He had been once a chimney-sweeper; he then became a stoker; and was now a shoemaker. His habits were somewhat intemperate.

He was sent to the Hospital by Mr. Shepherd, a former pupil of the Hospital, to whom he had applied in consequence of a painful swelling in the right ham, and who, on recognising the nature of the case, at once sent him to the Hospital.

The swelling was at this time small, and situated entirely between the tendons, which were not displaced by it. It was about two and a-quarter inches in diameter. The knee was an inch more in circumference than the opposite one. The tumour pulsated strongly, and gave rise to a considerable amount of pain. There was no evidence of any cardiac or renal disease, or of diseased arteries elsewhere. The pulse was 72, regular and firm. The aneurismal thrill and bruit in the tumour were very well marked.

The account he gave of the occurrence of the tumour was, that on the day before Christmas-day, after putting himself out of breath by running, he was shutting up the shop windows, when he felt something give way in the ham, and a small lump appeared. For a day or two he paid no attention to it, but three days after he felt an aching pain, and noticed that the lump beat strongly. Five days after its first appearance, *i.e.*, December 29, he was unable to walk, and the leg was stiff. Two days later the pain and throbbing had so much increased that he was obliged to give up work.

On his admission, an attempt was made to treat the case by Mr. Ernest Hart's plan of bending the leg on the thigh. The flexion stopped the pulsation; but in a short time the posture became so irksome to him that he removed the bandages, and would not again submit to the treatment.

Four days after, the treatment by pressure was begun, the pad of the tourniquet being placed about the situation of the junction of the upper and middle third of the thigh. A moderate amount of pressure checked the pulsation in the aneurism. The instrument was to be worn during the day, with occasional intermissions, as at meal-time, and it was taken off at night. The tumour had at this time increased a little, and measured over two inches and a-half in diameter.

At first he bore the pressure pretty well, but he was evidently not very intelligent, and was, moreover, somewhat self-willed, so that he did nothing towards aiding the efforts of the Surgeon. In three or four days after the application of the pressure he became restless and feverish. The pulsation was not so marked as at first, but this was in some degree owing to the general swelling of the limb from the pressure. Still the pressure was maintained, and the pulsation was generally kept in check. On the eleventh day, however, the pain in the tumour increased, and the tumour itself was evidently larger. The pain was so severe, as to prevent his sleeping. Although he suffered as much when the instrument was off as when it was on, he thought the pain was brought on by it, and was very averse to continuing its use. By the aid of morphia internally, and of a lead and opium lotion to the knee, the pain was for a time relieved. On the thirteenth day, the pain having been very severe during the previous night, he was suffering so acutely in the tumour, and he had become so excessively irritable, that no persuasion would induce him to have the instrument reapplied on the thigh. I got him, however, to try the Read's compressor, which encircles the pelvis, and acts on the artery at the groin. A moderate amount of pressure served to stop the pulsation. At this time the beat was far more violent than at the time of his admission, and the tumour was still increasing in size. It was, nevertheless, somewhat more solid. The skin was red, tense, and shining. The arteries around the knee could be felt pulsating distinctly. Although no pressure had been used since the previous afternoon, the pain in the tumour and about the knee was extremely severe. There was also considerable tenderness; the examination of the part gave rise to pain; but still it seemed as if it was rather the skin than the deeper parts which was the seat of this, for deeper pressure did not appear to increase it. The pain appeared to be more due to the great tension of the tumour than to any inflammation within it.

I had, at this time, little hope of being able to continue the pressure treatment under any modification, and directed the House-Surgeon to call my colleagues to a consultation on the following day, believing that it might be necessary to tie the artery. The Read's compressor was meanwhile applied, in the hope that the patient might be able to tolerate the pressure in a new situation for a time, and that the violence of the pulsation might be checked until it was determined what course should be pursued. It was put on at 2·30 p.m. He only allowed it to remain for about a quarter of an hour; then he took it off, and declared that he would undergo any operation, but that he would not bear the pressure any longer. Still it was not the pressure which was causing his sufferings; they continued after the instrument was removed; and the House-Surgeon, Mr. Marshall, found him shortly after he had removed it in such violent pain, that he gave him a full dose of opium. This produced no immediate effect, and a quarter of an hour afterwards Mr. Marshall administered a hypodermic injection of morphia. At this time, about a quarter past three, the tumour was beating as violently as ever. About twenty minutes afterwards, on the House-Surgeon going into the ward, the patient called his attention to the fact, that the pulsation had ceased, and told him that this had taken place very shortly after he had left the ward, and as he, the patient, believed, suddenly. On examination it was found that no beating whatever could be detected. The man's sufferings were ended. The pain was trivial, compared with what he had been enduring. The tumour felt firm and doughy; the general tension of the limb was less, but it presented nothing remarkable in temperature or colour.

From this time there was no trace of pulsation, nor could any sound be heard through the stethoscope. On the following day the tumour was considerably smaller, quite firm, and free from pain and tenderness; the engorgement of the limb was subsiding rapidly. For many days, the leg, below the knee, was a few degrees warmer than the opposite leg, as is frequently observed after ligature of the vessel. None of the arteries of the leg or foot could be felt to beat, while the vessels around the knee were large, and pulsated vigorously. The femoral artery could be traced by its pulsations from the groin to within an inch of the tumour. A cure was effected, in short, much in the same way, so far as the appearance in the sac and its contents was concerned, as if a ligature had been placed on the femoral artery.

Mr. Holmes, in his excellent article on "Aneurism," in the "System of Surgery," introduces a short notice of this case, and refers the cure to the impaction of a clot in the artery beyond the tumour. This is, no doubt, the explanation which would first suggest itself as calculated to account for the circumstances of the case. The detachment of a piece of fibrine, either spontaneously or after manipulation of the tumour, is an event which is known to occur now and then. Cases of impaction after manipulation are recorded by Mr. Fergusson, Mr. Teale, Professor Esmarch, and others. In this way a sort of natural Brasdor's operation is effected. But neither after Brasdor's operation, nor from the impaction of a clot below the aneurismal tumour after manipulation, has there occurred anything like sudden cessation of the pulsation, if we except a case which occurred to Mr. Teale,(a) in which the rapid cure was attributed by him to this cause.

In that case a popliteal aneurism had been treated by compression for seventeen days, and with progressive, though not, perhaps, striking, improvement. It had, to use Mr. Teale's words, "been very slowly diminishing in size, and increasing in solidity; but still retaining a rather strong pulsation." Mr. Teale then, on two occasions, manipulated the tumour; on the second occasion kneading it in various directions with some freedom. An hour and a-half after the last manipulation, the tumour had ceased to pulsate, and the cure was permanent. There was no pain before the manipulation, or in consequence of it. Whether the stoppage of the circula-

(a) *Medical Times and Gazette*, March, 1859.

tion was sudden, or whether the pulsation gradually subsided during this hour and a-half, the report does not state. It might, perhaps, be expected, that, when the aneurism was already advancing towards cure, and the collateral vessels were greatly enlarged, as was the case here, a sudden stoppage of the current of the blood through the distal part of the artery might cause a rapid deposition of fibrine in the sac. The mere stoppage of the circulation beyond the sac is not, however, followed, in general, by sudden or rapid cessation of pulsation in the tumour. Whether this event does, indeed, ever take place, under otherwise favourable circumstances, when the collateral vessels are enlarged to a full extent, and the contents of the sac already more or less solidified, is a question of great importance in practical Surgery.

But another interpretation may be given to the facts observed in this case. The aneurism was already advancing towards cure; layers of fibrine were deposited to some extent, and the collaterals were taking off the force of the blood-current from the interior of the sac. The manipulation at that moment, by breaking up the surface of the clots, and rendering it irregular, put the parts in a condition most favourable to the promotion of speedy coagulation of the blood. Nor is this inconsistent with what has been seen in other cases. Experience has shown that, when an aneurism is on the way to cure under compression, the wished-for result may ensue, even in spite of what would be regarded generally as the most unfavourable circumstances. Mr. Cusack and Mr. Porter had each a case in which the compression was discontinued, in consequence of its irksomeness, at a time when consolidation was taking place, though pulsation was still distinct. The patients went about their usual business, and took hard exercise; yet the cure was completed. Professor Vanzetti, too, has shown that, when an aneurism is advancing towards cure, a very short application of well-directed pressure will complete it.

A man was under my care at the same time as the patient H. with a popliteal aneurism, in which the evidences of impaction of clot in the artery at some part of its course were marked. The indications were, however, very different to those observed in H., or in Mr. Teale's case.

The patient B. was a boat-builder; and he came to the Middlesex Hospital with a large aneurism in the ham, which had suddenly and greatly increased in size a short time before his admission. There was an undefined tumour, pulsating strongly, and extending towards the patella on each side. Pressure was at once used; the man was intelligent and painstaking, and bore it very well; but the tumour increased, and there was no sign of consolidation. After the compression treatment had been carried on for a fortnight, the tumour had extended to the front of the knee, on a level with the sides of the patella, and entirely filled the ham. He suffered much from cramps and pain in the leg, but not severely in the tumour. Although there was now a slight appearance of consolidation, the tumour was increasing so much in size that I determined on tying the artery, and a consultation with my colleagues was summoned. But—as in the case of H.—when we met, we found that on a sudden (and of this the man was confident) the pulsation had ceased some hours before, and had remained absent; the tumour was much smaller and less tense, and there was a considerable amount of solidification. The foot and leg were cold and livid, very different to the state of the limb in the other case. Such being the condition of the parts below the tumour, I did not venture to maintain pressure on the artery in the thigh; and, after some hours, the pulsation returned nearly as suddenly as it had disappeared. But time had been given for the formation of a large amount of fibrine; the parts around the patella and side of the knee had become nearly solid; and, under the continuance of pressure to the artery, the aneurism was ultimately cured: it was, however, a very long time before the patient could regain any use in the knee. Here, it seems to me, we can only account for the arrest of the pulsation, on the supposition that some plug had choked the artery above the tumour. How this could take place is not easy to say. A soft plug might possibly have been forced into the opening of the sac during the movements of the leg. That a plug forced into the artery below the tumour could not have caused the arrest of pulsation in this case is almost certain; for, if we suppose that the collateral circulation was not yet established, a plug below the aneurism would precisely resemble Brasdor's operation, which in no case has been followed by such a sudden stoppage. The cure, where it does occur, takes place by the gradual deposit of fibrine, the blood entering the tumour with diminished force—or, rather, the collateral vessels enlarging so as to divert the current; this, however, can never be a sudden affair. Or supposing, for argument's sake, that in one solitary instance such an event might take place, the cause continuing, why should the effect cease, especially when, at the end of the eleven hours, the aneurism was in a far more favourable condition for cure than before the stoppage had taken place? The plug could not be washed away; for the circulation through the main vessels had, for the time, ceased. If, on the other hand, we suppose that the collateral circulation was established to such an extent as to permit of the blood being at once conveyed to the limb below the tumour, why the coldness and lividity, and why the return of the circulation through the sac? It seems more probable—indeed, it is the only reasonable explanation—that a clot, perhaps a soft one, had been forced into the upper part of the artery, which formed an obstruction for a time, during which important changes took place, both in the contents of the sac and in the collateral circulation, but that by degrees this clot, softening, became detached, and blood, though with a diminished impetus, in consequence of these changes, again passed through the sac. I may mention a case, in passing, to show how entirely insufficient is the mere closure of the artery below an aneurismal sac to arrest or diminish pulsation:—

A man, aged 47, was admitted, under my care, into the Middlesex Hospital on October 12, 1861, for some swelling and pain of the right foot. He was out of condition, and had been of late rapidly losing flesh. He was found to have an ulnar aneurism on the right side. It commenced an inch and a-half below the bend of the elbow; was fusiform in shape; and was $3\frac{3}{8}$ inches in length, and $2\frac{5}{8}$ in breadth. It had originated spontaneously, and had existed for four or five months; but he had paid little attention to it, as it did not give him much pain. He fancied it was rheumatism. The sac could be completely emptied by pressure. No pulsation could be distinguished in the ulnar artery below the tumour. When the tumour was suddenly and forcibly pressed on, a secondary beat was produced in the radial artery. The patient had albuminuria and extensive valvular disease of the heart. He became anasarcous, and at times large patches of purpura came out on various parts of the body, especially the lower limbs.

Although a very slight pressure on the brachial artery stopped the pulsation, it was found impossible to adjust any apparatus which would command the vessel for more than a few minutes. The beat of the artery was very large, and it shifted its position with such singular freedom that, adopt what kind of pad we could, it contrived to slip from under it in the course of a few pulsations.

Digital pressure was carried on by twelve students, who volunteered to compress the artery for an hour each, and this was maintained for fifty hours successively, with little inconvenience to the patient. Nothing was easier than to maintain pressure by the fingers, difficult as it was to do so by pads.

The pulsation and the size of the sac were somewhat diminished, and there was a little more solidity. Direct pressure on the sac was tried more than once, and the man himself kept up pressure on the brachial artery with his other hand from time to time, but with little alteration in the condition of the tumour. There was no doubt that the existence of the heart and kidney disease had so affected his blood, that there was not the usual tendency in it to fibrination, and this was shown by the frequent attacks of purpura. He remained in the Hospital six months, his health gradually failing, and in the end he died in a fit.

The aneurism was found to begin about three-quarters of an inch below the bifurcation of the brachial artery. Its cellular coat was thick, and it was lined by a thin layer of white, soft-looking fibrine, of which the inner surface was as smooth as if covered with an epithelium. The ulnar artery, large and thickened, opened into it by a wide orifice, as if the sac were a fusiform enlargement of the artery. Just before the artery merged into the sac, a vessel was given off—probably the ulnar recurrent—about as large as a small crow quill. The ulnar artery below the tumour was small—not more than half the size of the vessel above; it could be traced along the back of the wall of the aneurism to near its upper part, but no communication could for a long time be detected with the sac. At last a syringe was inserted into it, and water injected upwards. It was then found that, towards the

upper and posterior wall of the aneurism, there was a minute dot, such as might be made by the point of a fine needle, and which was only to be found when water was injected through the lower part of the vessel. Then it was seen that a little moisture exuded through this fine aperture. The artery would admit a probe to within an eighth of an inch of this point.

Nothing had been done for the tumour for nearly six weeks before his death; and though, with his gradually declining strength, the arterial action generally had diminished, and that of the tumour with it, yet, to the day of his death, the pulsation was, at times, nearly as strong as when he was admitted.

This case is mentioned, not merely because it is one in itself of interest, but because it shows that closure of an artery below an aneurismal sac does not tend of itself, even after a considerable time, to cure or diminish it. Though the absence of coagulation was due, in great measure, to the general condition of the blood, yet the post-mortem examination showed that this fluid contained fibrine enough to produce a clot, as there was an extravasation of blood over the posterior part of the brain, which had coagulated firmly. There were also recent vegetations on the valves of the heart; some had been detached, and had become impacted in the splenic artery.

To return, then, to the case of H. I have referred to reports on cases of aneurism, and have been unable to find one in which the evidence was so marked of sudden, or, at least, extremely rapid, arrest of pulsation, leading to cure of the disease; and I have to express my thanks to Mr. Ernest Hart, who has been much engaged on the literature of the subject, for having rendered me great assistance in the search I have made. There are, however, several cases on record which resemble it in many points, and which may have been altogether like it, though the fact of rapid arrest may not have been made out from the mere absence of those accidental circumstances which led to its detection in this case. The supposition, that the cure was effected solely by a detached clot which formed a plug in the artery, does not, I confess, satisfy me, unless it be supposed that the plug was forced into the upper part of the artery. There was, however, a certain indication present, which is noticed in most, if not all, of the cases of rapid spontaneous cure of aneurism which are recorded, and which seems to be directly connected with the cure, but is not to be accounted for by any mere stoppage in the artery. This is the severe pain in the tumour which precedes the cure, and which was so prominent a symptom in the case of H. In Mr. Teale's case, indeed, there was a rapid cure without pain; but here, compression had been used with marked benefit, and manipulation was put in practice. There is, then, a fair ground for question, whether the conditions were quite the same as in the instances which are here brought forward.

The connection of pain with spontaneous cure was first pointed out by Dr. Bellingham (b), but the cause of this symptom suggested by him, is not, I think, admissible: viz., the sudden increase of size in the anastamosing vessels, which takes place at this period. This point will be referred to again; and I will now shortly allude to some of the most striking cases of rapid, spontaneous cure, in all of which the symptom was present.

A very interesting case of tubular aneurism is recorded by Mr. Luke, in the 36th vol. of the *Medical Times and Gazette*. The patient, a man, 31 years of age, stated that the tumour had been noticed by him a year before he went to the London Hospital, that it had not altered in size, but that, for the past six months it had pulsated more violently, and had been the seat of pain, which had previously been absent. In order to judge of the truth of his story, that the tumour had undergone no change in size since it was first seen, Mr. Luke merely confined him to bed, and placed a piece of adhesive plaister spread on leather upon the tumour, with a spica bandage over it. This was done on March 3rd, and they were undisturbed till the 8th. "On their removal on that day, it was found that a considerable change had been effected in the tumour. Instead of being soft and compressible, and capable of being emptied of its contents, it was hard and unyielding, and slightly painful on pressure. It was further observed, that its pulsation had entirely ceased, as well as the pulsations of all the arterial trunks of the limb." "While collecting information respecting a state of things so unexpected, the patient stated that, when the bandage and plaister were first applied, he experienced considerable pain in the tumour for about half an hour, attended by an unusually violent throbbing, which perceptibly raised the bandage. At the end of that time the throbbing ceased, and there had not been any return." To account for the spontaneous cure in this and other cases, Mr. Luke was inclined to adopt the view entertained by Mr. Wardrop, that the fibrinous layers found in an aneurismal sac advancing towards cure, are not deposited from the blood passing through the cavity, but are poured out by the inner wall of the sac, between and among which the blood in the aneurism is at times forced, and coagulates.

(To be continued.)

(b) Observations on Aneurism and its Treatment by Compression. 1847. P. 166.

PROFESSOR PETTENKOFER'S RESEARCHES ON RESPIRATION AND THE CHEMISTRY OF LIFE.

(Continued from page 517.)

The following table shows, at a glance, the experimental proceeding:—

	Hour.	Minute.	Day.	Month and Year.	Remarks.
Beginning of experiment	10 a.m.	1	14	March, 1861.	Experiment of control with stearine candle. Elementary analysis shows stearine to contain 76·6 per cent. of carbon.
End of experiment ..	7 p.m.	42	14	„ „	
State of gasmeter at the end				552,369	During the experiment 103·725 grammes of stearine were consumed; *i.e.*, 79·3 grammes of carbon; = 290·7 grammes of carbonic acid.
„ „ beginning				545,750	
				Cubic feet, English.	Amount of carbonic acid in the air which has passed through = 270·8 grammes.
Air which has passed through				6619	
Correction for temperature				96·6	
„ „ aqueous vapour				25·6	
Total amount				6741·2	
In litres				190878·7	
Quantity of baryta-water in the long tubes before the experiment				30·3	Carbonic acid which remains in the chamber = 18·2 grammes. Total amount of carbonic acid found, 289·0 grammes.
Quantity of baryta-water in the short tubes before the experiment				30·3	Carbon contained in this = 78·8 grammes.

Examination

Of the Air which enters.					Of the Air which leaves the chamber.				
Quantity of Air examined, 47·3 litres.					Quantity of Air examined 49·7 litres.				
Baryta-water.	Contents in cubic centimètres.	Strength (a) after the Experiment.	Carbonic Acid, in milligrammes.	Carbonic Acid contained in a thousand litres, in grammes.	Baryta-water.	Contents, in cubic centimètres.	Strength (a) after the experiment.	Carbonic Acid, in milligrammes.	Carbonic Acid contained in a thousand litres, in grammes.
Long tube ..	90	20·8	28·5	0·6342	Long tube ..	135	9·5	93·6	2·0523
		20·8					9·5		
Short tube ..	90	29·8	1·5		Short tube .	90	27·5	8·4	
		29·8					27·5		
			30·0					102·2	

Difference of carbonic acid in 1000 litres of the air which enters and leaves	1·4181 grammes.
Difference of carbonic acid in 1000 litres of the air which remains in the chamber	1·5132 „

(a) By "strength" of baryta-water, the number of milligrammes of carbonic acid is understood, which is necessary for the saturation of 30 cubic centimètres of baryta-water.

State of Thermometer (C.) at the Gasmeters.

Time of Observation.	Small Gasmeter.		Large Gasmeter.	
	a.	b.	Dry Ther.	Moist Ther.
12	14·8	14·6	10·6	10·4
2	15·4	15·2	11·2	10·7
4	15·4	15·2	11·3	10·5
6	15·4	15·4	11·4	10·5
7 h. 40 m.	14·8	14·8	11·1	10·5
Mean average	15·16	15·02	11·1	10·5

The following table shows the results of a number of experiments of control, made successively with the same candles, for conveying an idea of the average accuracy of the apparatus and method :—

2.—Duration of experiment, 7 h. 34 m.

	Carbonic Acid. Grains.
81·6 grammes of stearine were burnt, and gave .	229·1
154,251 litres of air passed through, containing .	210·3
12,000 litres of air remained in the chamber, containing	17·7
Total amount of carbonic acid found . .	228·0

3.—Duration of experiment, 10 hours. Two candles burnt at the same time.

	Carbonic Acid. Grains.
210·2 grammes of stearine were burnt, and gave .	590·3
330,945 litres of air passed through, containing .	569·0
12,000 litres of air remained in the chamber, containing	21·4
Total amount of carbonic acid found . .	590·4

4.—Duration of experiment, 10 hours.

	Carbonic Acid. Grains.
102·8 grammes of stearine were burnt, and gave .	288·7
187,210 litres of air passed through, containing .	267·7
12,000 litres of air remained in the chamber, containing	18·3
Total amount of carbonic acid found . .	286·0

5.—Duration of experiment, 10 hours. Two candles burnt at the same time.

	Carbonic Acid. Grains.
215·9 grammes of stearine were burnt, and gave .	606·4
185,049 litres of air passed through, containing .	567·3
12,000 litres of air remained in the chamber, containing	39·3
Total amount of carbonic acid found . .	606·6

If these five experiments, which were made successively one after the other, are put together, and the amount of carbonic acid calculated from the burnt stearine, is compared with that found by actual experiment, the average accuracy of the method becomes at once apparent.

	Calculated.	Found.
I.	290·7	289·0
II.	229·1	228·0
III.	590·3	590·4
IV.	288·7	286·0
V.	606·4	606·6
	2005·4	2000·0

The proportion of the quantities calculated to those actually found, is therefore as 100 to 99·7, so that there is an average accuracy of $\frac{3}{10}$ths per cent. There are only few methods in analytical chemistry which may lay claim to a more considerable accuracy, and Professor Pettenkofer's respiration apparatus is, therefore, although it has the shape of a human dwelling, and the motive-power used for it is steam, fully entitled to be considered a strictly scientific and accurate apparatus of measurement. In certain experiments on men and animals, experiments of control were made in this manner: a certain quantity of amylum was replaced by its equivalent of sugar, whereby the amount of carbon contained in the food remained unchanged, which was also the case with the quantity of carbonic acid expired.

Thus, for instance, two experiments were made on a man, with regard to the elimination of carbonic acid, while fasting. Every experiment was preceded by similar conditions, *i.e.*, similar food, similar weight of the body, and similar state of health; so that a similar quantity of carbonic acid might be expected to be eliminated through the lungs and skin. The man felt comfortable in the apparatus, and slept very well at night. The only difference between the two experiments was the temperature of the air, which amounted to 9° C.

During the first experiment (25° C.) 516,239 litres of air passed through the apparatus, containing . .	647·5 grs. of CO^2.	
In the 12,000 litres of air remaining in the chamber, were contained . .	15·4	,, ,,
Total amount of carbonic acid found .	662·9	,, ,,
During the second experiment (16·4° C.) 496,588 litres of air passed through the apparatus, containing . .	647·5 grs. of CO^2.	
In the 12,000 litres of air remaining in the chamber, were contained . .	16·0	,, ,,
Total amount of carbonic acid found .	663·5	,, ,,

During the first experiment, the difference of temperature between the large gasmeter and the two small gasmeters amounted to 2° C., but in the second to 0·2° only. The first time, more air had passed through, and the second time less so, owing to variations in the friction of the motive apparatus, in consequence of which the sucking cylinders move imperceptibly slower or faster. The difference in the quantity of carbonic acid contained in the air which entered and left the chamber, was each time quite different; but, nevertheless, the final result was, that the amount of carbonic acid eliminated during the twenty-four hours, was exactly the same for the two experiments.

This would seem to settle the question as to the accuracy and practicability of the apparatus, which, if reduced in size so as to be suitable for small animals and plants, will give just as correct results as in its larger shape. On the other hand, its dimensions may be increased, without disturbing the accuracy, provided that the difference in the quantity of carbonic acid contained in the air which enters and leaves the chamber, should not be too small. The same apparatus is also eminently fit for ascertaining the amount and the variations of carbonic acid in the open air.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

GUY'S HOSPITAL.

CASE OF LEPROSY (ELEPHANTIASIS GRÆCORUM) —CLINICAL REMARKS.

(Under the care of Dr. GULL.)

THERE is at present in Guy's Hospital, under the care of Dr. Gull, a case of Elephantiasis Græcorum, or Leprosy. This disease has, by Dannielsen and Boeck, who have paid great attention to the subject, been divided into two forms, lepra tuberculosa and lepra anæsthetica. Dr. Wilks, in a paper in Guy's Hospital Reports, gives details of four cases of the former and three of the latter; but it would appear, both by Dr. Wilks' cases, and by the case we are about to relate, that the two forms are often not distinct. In Guy's Hospital Museum there are models of the disease taken from several of these patients. Dr. Gull's patient was born in the West Indies, and lived there until the present year. It is exceedingly rare for leprosy to occur in persons who have lived all their lives in this country. Dr. Wilks, in the paper referred to, has

published one case. Dr. Webster, in a paper in the *Medico-Chirurgical Transactions*, states that the disease was at one time very common in the British Islands, and that King Robert the Bruce died of it. In the discussion which followed the reading of this paper, Dr. Priestley said that he had seen three cases in Edinburgh (see this Journal for January 21, 1860). In the same volume, p. 363, April 25, is a paper on the "Leprosy of the Hebrews," by Dr. Sim, of Naples, to which we refer our readers for much valuable information. In the same volume are contributions on this subject by Mr. Nourse, of Brighton; and Dr. Hobson gives an account of the disease as it prevails in China. In the next volume is a communication from Virchow; and Dr. Sweeting, of Nassau, New Providence, Bahamas, gives an account of the disease as it appears in the West Indies. In the first volume for 1861, February 23, is another paper on the disease, by Mr. Nourse, read before the Medico-Chirurgical Society. As our readers are already in possession of so much valuable matter on this subject, we shall do no more than give the following brief details of the case, and a short *resumé* of some of the observations on the case made by Dr. Gull. We give also some extracts from a valuable communication by Dr. Carter, of Bombay, in order to complete the subject by the most recent researches on the morbid anatomy of the disease.

For the following details of the case we are indebted to Dr. Daniel, Dr. Gull's Clinical Clerk:—

Case.—Mary G., a woman of dark complexion, aged 35, of English parents. She was born in Barbadoes, and lived there until a few months before admission. She was admitted under the care of Dr. Gull, June 18, 1862. She had been subject to "nervous" headache all her life, but her health was pretty good until about March, 1856. In 1845, when in Demerara, she had one or two specks of a light brown colour on the skin, which soon spread over both arms, something like at present. It disappeared in 1846, after using sulphur balls (?) One morning she had a feeling on the back of her left hand as if some one were irritating the skin. She then scratched the part, and found that she had no feeling in it. She found that the numbness extended from the wrist to the base of the second phalanges, and on the posterior part of the elbow. This continued, and towards the end of 1860 the hand also became discoloured and swollen, and a little later she found that there was discoloration of the legs, shoulders, neck, and face. She came to England in April last.

At present the back part of the left hand and fingers are of a reddish-brown colour, and as if much sunburnt. The skin is thickened and firmer than natural, the fingers of this hand being twice the size of those of the other. The discoloration stretches about half way up the posterior part of the forearm, where it becomes lighter, and on the elbow again darker, and the skin thicker and more numb. Pinching in the anæsthetic parts is felt very indistinctly. The whole of the right arm and hand is of a light brown colour, with patches of a darker brown; one above the elbow, of the size of a four-penny piece, is very marked. On the arms and hands are various small, white, shining, tubercular masses, which she thinks were caused by ulceration after application of lime. In the left hand she has not so much strength as formerly, and is subject to severe cramps in it, which go off upon rubbing it. On the face, beginning where the hair leaves it free, the skin is discoloured, thickened, rather raised above the surrounding surface, and looks as if it had been long exposed to a burning sun. Since her arrival in England the right nostril has seemed as if stopped up by a cold. She can taste, and see quite well, though there is a little occasional cloudiness of sight. There is a similar condition on the skin on the chest, though more in patches, lighter, and of a brown colour, without the reddish tinge. At the upper part of the sternum is a large patch about three inches square. This has a reddish tinge. On the back there are also patches of the disease. It began on the face in 1860 as a small spot on the right angle of the mouth, and within the last twelve months it has gradually spread to the cheeks and to the nose, and, lastly, to the forehead. It began on the legs in 1860, also, at first, in small specks, which gradually enlarged, and now cover the legs in patches down to the feet. The parts affected are more swollen when she gets up; the swelling gradually subsides during the day. She feels sometimes on her body and face, but more on the hands and feet, a crawling sensation, as if she were "getting cold," or as if something were creeping under her skin. This comes on two or three times a-week, and lasts about half-an-hour each time. Tongue rather light coloured and flabby. From 1856 to 1860 her appetite was impaired, but since 1860 it has been good. Menstruation began when she was 17 years old; generally regular; sometimes at intervals of six weeks; now suppressed for some weeks.

June 19.—℞ Potassii bromidi, gr.v.; dec. sarzæ, ʒj., ter. die. Sulphur bath three times a-week. Diet of milk and eggs.

July 2.—Rep. mist. c̄ pot. bromi., gr. x.

After continuing the bromide some time without perceptible improvement, she was ordered Plummer's pill, which she took for several weeks daily, also without benefit. She is now ordered the nitro-hydrochloric acid, and with some apparent good result.

The case is an excellent instance of this dreadful malady in its early and less formidable stages. Treatment will probably effect less for her than a residence in Europe.

She has found that the creeping and distressing sensations mentioned in the report are less if she abstains from animal food. This is so decided to her that she cannot be persuaded to take even milk. She asserts that the skin of the face, which, as named in the report, has the appearance of being sunburnt, is always more hot, swollen, and uncomfortable if she takes anything of an animal nature. She has now for some weeks lived solely on the Egyptian lentil meal boiled in water.

It appears that of late this disease has been increasing in our West Indian colonies.

A committee of the College of Physicians has recently framed a series of queries, which it may be hoped will, in due time, bring us much information on this unmanageable and mysterious disease.

Though not endemic amongst us here in England, it seems probable that occasional traces unrecognised do come before us in practice.

Dr. Gull informs us, that by a selected series of cases it is easy to show that the "cheloid," described by Dr. Addison, is the effect of a "leprous" taint. Addison's cheloid is the morphœa of the old writers, and the morphœa has been abundantly shown to be a stage or degree of the leprosy.

In this occasional occurrence of traces of leprosy amongst us, the disease is comparable to cretinism, which, though endemic elsewhere, is but sporadic and rare here; both diseases seeming to need especial conditions of locality for their full development and extension.

As to the pathology of the malady, it has been well ascertained that it is not one of the skin and its adjacent textures only, but that every organ of the body is in severe cases the seat of a peculiar albuminous deposit.

In the volume of the *Transactions of the Pathological Society* just issued for last Session, is a communication from Dr. H. V. Carter, of Bombay, "On the Condition of the Nerve-Trunks in Anæsthetic Leprosy." The nerves are increased in size. That, as Dr. Gull remarks, leprosy is not a disease of the skin only, will be seen by the following extracts from the article:—

A Mussulman, aged 30, a native of Dacca, but resident in Bombay, was admitted into the Jamsetjee-Jejeebhoy Hospital, on December 8, 1861, having for seven months been affected with leprosy. He was emaciated and weak. There was no anæsthesia about the head, nor any signs of the disease beyond depression of the nose. The hands and adjoining parts of the forearm were almost completely devoid of sensation; the fingers were swollen, shortened, and ulcerated. The foot and leg on both sides were similarly affected; on one, the great toe had dropped off, and the anæsthesia was complete. The disease began in the feet; then the hands, and, quite recently, the face, were implicated. The urine was pale, alkaline, free from albumen, of light specific gravity, and copious in quantity.

The patient died of dysentery and exhaustion on January 7.

Post-mortem Examination.—The hairs on the eyebrows were few in numbers; muscles pale; blood coagulated. *Brain.*—The membranes healthy; substance wet and soft; many puncta; on the floor of the fourth ventricle, and in the corpus dentatum of the left crus cerebelli, a very small extravasation of blood; arteries healthy. *Spinal Cord.*—Membranes healthy, except that the arachnoid in the dorsal and lumbar regions, and chiefly on the posterior surface, contained numerous small, white, osseous particles, one-tenth of an inch in diameter; they were often in apposition with the posterior roots of the spinal nerves, but clearly did not exert pressure on them; substance of the cord healthy.

The sympathetic, nervous system appeared perfectly unaffected. In the mesentery, close to the spine, I found about half-a-dozen Pacinian corpuscles of large size, but of tolerably healthy appearance. Except that the kidneys were mottled, and these corpuscles adherent, no other important morbid changes were detected.

Dr. Carter then speaks of the nerves of the upper and lower limbs. The following is the table he gives, comparing the nerve-trunks found in the leprous patient with those of another subject of the same age:—

	Leprosy.	Health.
Median Nerve.		
Middle of the forearm	2¼	2
Near the wrist	6¼	4⅕
Ulnar Nerve.		
Opposite elbow-joint	6	2½
Great sciatic in gluteal region	5	6
Posterior tibial (above)	2⅓ round	2⅓ fly
,, ,, (below)	5	3¾
External popliteal	4½	2¾
External saphenous (below)	1⅘—2	1
Musculo-cutaneous	2½	1½
Anterior tibial (below)	2	1

"It will thus be seen that all the sensitive nerves supplying the anæsthetic parts were affected in such a way as to account for the local symptoms in a most satisfactory manner, and no other nerve-trunks were similarly diseased.

"In the dissection of a previous case of anæsthetic leprosy, the nerve-trunks were found to be translucent and slightly diminished in size. Further investigations may show that atrophy follows enlargement."

The results of the microscopic examination of the nerve trunks are given in our report of the Pathological Society, p. 416 of the last volume of this Journal.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 22.

NEW REMEDIES.

If we are to judge by the advertisement columns of our Medical periodicals, great discoveries are constantly being made in the province of Materia Medica and Therapeutics. Scarcely a month passes but what inventive genius "offers to the notice of the Profession" some novelty in the way of an "eligible preparation" or "elegant combination." Not unfrequently hopes are raised by the announced discovery of a prompt and sure remedy for some hitherto intractable disease. Should the "gentle" reader be a thought incredulous as to its boasted efficacy, he is gently reminded of his insignificance, as well as corrected for his presumption, by the further assurance, that the said remedy has been extensively employed by Physicians and Surgeons "of high metropolitan standing." We have a few remarks to offer about the nature of so-called new remedies, their real or supposed virtues, and their consequent claims upon the notice of the Medical Practitioner.

There is a whole host of new remedies which are all very good in their way; but—as far as we can judge, from the evidence of others, and from our own experience—they are simply not wanted; and needless multiplication of the articles of our Materia Medica is more likely to retard, rather than favour, any real advance in Therapeutics. We allude to the various advertised preparations of quinine, iron, strychnia, etc.,—the aërated carbonates, effervescing citrates, phosphates, superphosphates, pyrophosphates, and other salts of these bodies. Some of these are simple salts; others are made up of two or more salts forming not definite chemical compounds but merely mechanical mixtures. They are offered for sale in various forms, such as syrups, liquors, scales, and granules. Thus we have seen a *Liquor Ferri Magneto-phosphatis*, a *Syrupus Ferri et Manganesii Hypophosphitis*, a *Syrupus Quinæ Ferrique Superphosphatis cum Strychniæ Phosphate* (!) This last is certainly a *chef d'œuvre* of the compounder's art—a worthy rival of that forlorn hope of the Dermatologist, the *Liquor Donovan*. We hope it is smoother to swallow than it is to articulate. One positively needs more than average length of wind and glibness of tongue to read it off at a breath without tripping. Cod-liver oil medicated with quinine, with iodide of iron, and with both together, is also advertised. But these, after all, are not really new remedies. Some few of those usually advertised, we allow, have some claims to novelty, as, for instance, the preparations of lithia, and cerium, and the new salts called Hypophosphites; but the rest are simply variations and combinations of remedies with which we have long been familiar, and, as far as we can ascertain, have nothing special to recommend them except their long-winded, sonorous titles. Take the preparations of iron. Chemists may invent as many salts of iron as there are acids with which this base will combine; but in so doing they are not inventing new remedies; they are merely dressing up an old friend in new clothes. Surely it is the iron in each case which does the good, not the peculiar mode of combination in which it exists. There are, of course, shades of difference in the action of its different salts, or rather *classes* of salts; but we maintain that these classes are sufficiently represented in the several old-fashioned preparations of iron, to meet the requirements of any case in which that mineral can do good. With regard to those complex preparations which contain three or four ingredients at once, we are sorry for the Doctor who prescribes them as well as for the patient who has to take them. Such a fashion of treatment has always seemed to us to bear a striking resemblance to the practice of a bad marksman. He loads his gun with a desperate charge, feeling that his only chance of killing his game is to make the shot scatter widely. If, in any special case, we wish to try more than one remedy at a time, we find it just as easy to extemporise their combination ourselves, as it is to prescribe a preparation in which they are combined for us. It is, likewise, far more satisfactory. In the one case we know the exact nature and strength of the weapons we are using; in the other case we do not.

A further objection to all such remedies is that, as yet, there are no recognised formulæ for their preparation. Each manufacturer prepares them after his own method, and, consequently, they are neither uniform in strength nor definite in composition. We strongly suspect they originate in mercantile, not scientific enterprise; and that they find a sale simply because they are novelties well puffed and advertised, not because they supply any therapeutic wants really felt by those who buy them. Moreover, the very fact of their mode of preparation being kept a secret is itself a reason why they should be regarded with distrust.

Let us now draw attention to a number of *really* new remedies, of a very different kind from those we have just been discussing. Their novelty is beyond question; their remedial virtues remain to be proved. They are derived from the vegetable kingdom. Some, though long known and much used in America, have not, until very recently, attracted the

notice of the Profession in England. The *Veratrum Viride*, *Actæa* or *Cimicifuga Racemosa*, *Prunus Virginiana*, and *Podophyllum Peltatum*, are a few of the plants to which we allude. Some of the preparations made from them are exceedingly interesting—those, namely, which profess to embody in a concentrated form the several therapeutic constituents of their respective plants. Their names, Podophyllin, Veratrin, Cimicifugin, etc., might lead one to suppose they were of the nature of ordinary alkaloids; but such, we are assured, is not the case. Each of these medicines (if prepared according to its professed formula) represents, not *some one* active principle of the plant from which it is derived, but *all* the (known) active principles—and these, too, in a state of absolute purity, freed from all extraneous, non-medicinal matter, and in the same number and proportions as they originally existed in the living plant.

It would at present be premature to endeavour to settle the nature and amount of therapeutic value which these new medicines possess. If we are to believe American journals, they will prove—many of them, at least—invaluable additions to our Materia Medica. We would rather form an estimate of their value by our own clinical experience of their effects. As yet, the recorded experience of our Profession with regard to them is too narrow and too recent to enable us to express any opinion. Still, whatever may prove to be their medicinal value, it is impossible to over-estimate the importance of *the principle involved in their preparation*. It is a step forwards in the right direction. It is an attempt to supply Medical men with reliable drugs of unvarying quality and strength, and so to eliminate one grand cause of uncertainty in the treatment of disease.

We sincerely hope that Medical Practitioners will examine the merits of such remedies, and favour us with the results of their observation. They are new; there is no *à priori* reason why they should be pooh-poohed. On the contrary, there is sufficient testimony in their favour to justify their claim to an impartial trial. Reasonable caution in the recognition and adoption of new remedies is all very well; but the unreasoning distrust, or more often apathetic indifference, with which they are apt to be regarded by certain classes in our Profession, is greatly to be deplored. The introduction of a new remedy is beset with a variety of obstacles. There are some who would leave disease almost wholly to the *vis medicatrix naturæ*, forgetting that the *vis medicatrix artis* is no mean auxiliary in the hands of those who know how to use it. There are others who despise remedies whose action they cannot explain. Some, again, are unwilling to risk a possible reputation for "safe" practice by giving them a trial. To this latter class belong certain self-styled "practical men." These reject a new medicine simply because it *is* new. They believe they know all that is worth knowing, and any new suggestion ruffles the serene self-complacence which such a belief engenders. *Some* may be green enough to imagine that priceless remedies may possibly still lurk undiscovered in the great realms of organic and inorganic matter, and that, if we want to find them, we must search for them. "Practical men" know better.

All these various kinds of opposition to new medicines have the same result,—viz., to retard progress in that very branch of our art in which progress is most wanted. We really cannot afford to make light of suggested remedies. Should they prove worthless, or not worth retaining, by all means let them be consigned to the poet's Limbo. But let them first have a patient and impartial trial. Let their merits be decided, not by the *dictum* of this or that great man, but by the results of the multiplied observations of the largest possible section of our Profession.

In conclusion, we beg to offer our readers the following suggestion:—In making trial of any new remedy, let them use only those specimens concerning which they can ascertain the following particulars: (1), by whom prepared; (2), the date, and (3), the mode of preparation; (4), if a vegetable remedy—the conditions of growth, as to locality, soil, etc., of the plant from which it was made. This last particular is of great importance; for plants are known to vary considerably in their yield of medicinal constituents, according to the circumstances under which they are grown. We strongly suspect that a knowledge of these details would go far to explain the discordant results so often obtained by different experimenters with apparently the same remedy. And, lastly, let them not fail to record negative as well as positive results.

MEDICAL EDUCATION IN GLASGOW.

(*From a Correspondent.*)

1. THE UNIVERSITY.

THREE Degrees in Medicine are granted by the University—viz., M.B., C.M., and M.D. These degrees are conferred according to the following rules:—Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are required to pass a preliminary examination in English, Latin, Arithmetic, the Elements of Mathematics and of Mechanics. The examination in these branches usually precede the commencement of professional education; and, previous to the first professional examination, candidates must pass an examination in any two of the following subjects—viz., Greek, French, German, Higher Mathematics, Natural Philosophy, Natural History, Logic, Moral Philosophy; this examination also to take place, as far as possible, before the beginning of the Medical curriculum. A brief and useful list of books on these preliminary branches of education, recommended to candidates, is printed by the University. A Degree in Arts from an acknowledged University exempts candidates from examination in general education. The candidate for the Degree of M.D., who must previously be a Bachelor of Medicine, and not having graduated in Arts, passes, in addition, an examination in Greek, and Logic, or Moral Philosophy, with any other of the second list of subjects enumerated above. The course of Professional study for a degree occupies four years, not a long period, considering the multiplicity of theories and facts presented to students in the quadriennium. Premising that the papers on different Medical Schools, which appear in this Journal, are intended principally for gentlemen who aspire to, or have but recently entered upon, the study of Medicine, we have judged it not imprudent to comment a little on the progressive branches of the University curriculum, certain that, though we cannot back our counsels with the gravity of old age, we can strengthen them with all the weight of recent experience.

The Anatomy Classes are the first that the Medical aspirant enters. Beginning with the bones, and next turning his attention to the muscles, viscera, and ramifying systems, the earnest student cannot fail, under existing arrangements, to acquire a complete knowledge of Anatomy. The Professor demonstrates twice daily, at eleven and two o'clock, the class on both occasions being composed of senior and junior students. The junior of one Winter Session becomes the senior of the next. In the dissecting-room, which is open, under competent superintendence, from 10 a.m. to 4 p.m., the student verifies for himself, so to speak, the demonstrations in the class-room, and is never hampered by a want of subjects, which, in both the Medical Schools of this city, are always abundant and cheap. The large supply of dry bones and skeletons, and the numerous anatomical preparations, models, and diagrams, which lie for inspection in the adjoining rooms, are valuable, though not indispensable, aids to the learning of Anatomy in the dissecting-room.

The Chemistry Classes—of which the theoretical in winter and the practical in summer form a necessary part of the curriculum—are usually taken early in the course. We believe that hitherto Chemistry has been undervalued by some University students; and they found that out when they came

to analyse the mixtures which the Professor of Jurisprudence put into their hands at a later period of their attendance. It has been often remarked, that there was too much mere looking and listening in the winter Chemical Class; and we feel glad to know that, during this Session, in addition to the lectures, which are delivered daily, the students will be divided into small sections, and receive additional instruction in tutorial classes. This plan is a partial extension of the system adopted in the summer practical class, where the students are divided into twos and threes, and perform experiments under the guidance of the Professor. Gentlemen desirous of extending their chemical knowledge beyond the usual requirements of the Examining Boards, may obtain in the laboratory, which is situated below the class-room, and is open for seven hours daily, instruction in analysis, and the application of Chemistry to the useful arts.

Botany, like Practical Chemistry, is usually studied during the summer following the first winter at College. This class has often, in our hearing, been "voted a bore." Some students will always be fond of the science, but the majority would banish it from the curriculum. The utility of Botany, in the elementary and non-Medical form in which it is taught (very ably, no doubt) at this University, we never could see. As an introduction to the Materia Medica, the class is comparatively valueless, but it will always be prized by gentlemen anxious to obtain a liberal education. Fancy the ignorant appearance a young Doctor would make, did he require to be informed, say by a lady, that the "lovely daisy" is the *Bellis perennis*, or that the *Myosotis palustris* is the sweet "Forget-me-not!" The Botany Class would be better attended throughout the season if it met within the University walls. A walk at half-past six p.m., the hour of the class, through the West-end Park to the class-room in the Botanic Gardens (fully two miles from the College), is excellent on a dry summer night, when Nature is clad in gorgeous array, and animate beauty, deserting the drawing-room, is abroad enjoying the evening's sweetness; but, oh! what an irksome pilgrimage it is when rain is dashing down the streets, and a presentiment exists that, if you do not appear in your place, you will probably be called for the examination of some dripping plant. We humbly think that a University class should be in the precincts of the College (a). It is a fact that the gardens are not made use of by students as an aid to the mastery of botanical science; and if a few may be desirous of frequent admission to the grounds, the laudable practice of giving a free ticket by the Professor should not be discontinued. A voluntary walk to the gardens would always be beneficial.

The Physiology Class.—It was once said to an anatomist, "Why do you not cure all the diseases of the human body?" "My skill may be great," replied the dissector, "but, unfortunately, we anatomists are like the porters of Paris, who are well acquainted with all the streets, but are ignorant of what is going on inside the houses." Speculation in the mind of the student begins with this class. How difficult, amidst the multiplicity of theories, to come to conclusions regarding the functions of the liver, the spleen, the supra-renal capsules, different parts of the brain, this thymus, and that other gland! The Physiology class is always joined during the second winter; and as the student leaves the dissecting-room at 4 o'clock, and climbs the circuitous stairs to the class-room, he is well prepared to appreciate the truths and speculations which physiology lays before him, in connection with the structures he has already handled and studied. It is a matter of surprise, that a class which meets to learn the institutes of Medicine, the preservation of health, the value of fresh air and ventilation, should assemble in an attic room, the approach to which is like a double circular canal, and which on an examination night is packed not unlike the steerage of an Irish steamer. When a new college is built in Glasgow, the Physiology class-room, in place of being a reproach, ought to be a model in its accommodation, light, and ventilation.

The Surgery Class has always been popular in the University. The student becomes a member of it commonly in the third winter, sometimes during both second and third sessions. His anatomical and physiological knowledge comes here into use; and Surgical science, which appeals considerably to the senses, secures his attention. A tyro can foresee that a Physician, if he be a good tactician, may roll himself into a good practice, although his knowledge of auscultation and percussion be limited; but how can a bungling operator conceal his ignorance? A dislocation, a fracture, an amputation, tests a man's knowledge on points where laymen are, comparatively speaking, good judges.

The Practice of Medicine Class is attended by the student in either his third or fourth session. The subject is all-important, and deserves his utmost attention. A well-informed Physician is an ornament of his Profession,—one who, like Samuel Johnson, goes into the why and the wherefore of things; and, primed with a full knowledge of the preceding departments of Medicine, examines every case *de novo*, carefully arrives at his diagnosis, awaits the ever-changing character of internal disease, and scientifically administers the most likely remedy our art supplies.

Materia Medica Class students are apt occasionally to deride this class, and to talk dramatically about "throwing physic to the dogs." This feeling is partly occasioned by the dryness of the subject, and probably takes its origin from the fact, observed early by students, that the Materia Medica, in the hands of some men, is simply an engine for making money. An individual ailing, or supposing himself unwell, walks into a "Medical hall." His complaints are listened to with gravity, an elegant eight-ounce bottle is looked out, some aperient powder is mysteriously weighed and cautiously introduced, ℥viij. aquæ pumpaginis follow, a neat cork and label complete the farce, and the patient is told to take no more than a tablespoonful thrice daily. The contents of the bottle will not injure a healthy person, but, if disease be present, the patient will probably become worse, and thus drugs, or "bottles of doctors' stuff," as the populace term them, are considered worse than useless. On the other hand, medicines, in the hands of a conscientious man knowing his profession, are of great value. Who doubts the efficacy of opium to allay pain, the ability of bark and iron to strengthen the system, and the importance of cathartics in the process of derivation and lightenment of the animal economy?

Few divisions of the curriculum remain to notice. Midwifery is the next to speak of. Students of the third winter formerly walked from the Materia Medica Class to that of Midwifery. The former class is now at 11 a.m., the latter at 3 o'clock. The period for taking the Midwifery Class is regulated by the wants of the student. He may, for instance, desire to make a little money by acting as an assistant during the later summer months of his curriculum. Midwifery merits, and commonly receives, the student's best attention. No fault injures a General Practitioner so much as ignorance of obstetrics. Pupils, in addition to the lectures, fee for a small sum the Lying-in Hospital and Dispensary for Diseases of Women and Children, George-street, which is in connexion with the University, and may initiate themselves thoroughly in Midwifery Practice by attending poor women (and cases are never awanting) at their own homes.

Forensic Medicine is the last prescribed branch of study. The class is joined at the beginning of the fourth session, and properly so, for the subject embraces all that the student has gone over. In this class scarcely a week passes without an exercise being given to each student—either some difficult question in Jurisprudence to be answered, or the contents of

(a) The matter complained of has been partially remedied. During last Session the class met thrice a-week within the College, and on other days in the room of the Botanic Gardens.

a phial to be analysed and reported upon. Recent *causes celebres* have given Medical Jurisprudence a very high importance in the curriculum. The following words of a venerable authority should be written by every student on the fly-leaf of his "Jurisprudence Manual:"—"To animate you to apply to the study, recollect the extent of the services you will thereby be enabled to render to individuals and to the public. Fraud and violence may be detected and punished; unmerited infamy and death may be prevented; the widow and the orphan may be saved from ruin; virgin purity and innocence may be vindicated; conjugal harmony and happiness may be restored; unjust and oppressive demands upon the services of your fellow citizens may be obviated; and the sources of public misery may be removed by your testimony in courts of justice." The fee for each class is £3 3s. The winter session, beginning in November, terminates towards the close of April. The summer session is from May to July inclusive. Medical students should attend, in addition to the compulsory classes, the summer lectures on Anatomy, the course of Operative Surgery, and the lectures on the Structure, Functions, and Diseases of the Eye. The fee for the last-named class is £2 2s. Every one should frequently visit the Museum of the University,—a bequest of the late Dr. William Hunter,—which contains, in addition to numerous illustrations of natural history, antiquities, and the fine arts, a very large collection of anatomical and Medical curiosities. The Library will also be prized by the industrious student; books can be perused in the reading-room, or may be taken to the student's own home.

Candidates for a degree do not usually wait till the completion of their curriculum before "going up" for the Professional examinations. Three separate examinations, conducted partly in writing and partly *viva voce*, are allowed during the quadriennium. Firstly, on Elementary Anatomy, Chemistry, and Botany, at the end of the second year. Secondly, on Advanced Anatomy, Zoology (a recently-introduced branch, taught in summer), Physiology, and Surgery, after the third year of study. Thirdly, on Materia Medica, General Pathology (no University lectures on this branch yet), Practice of Medicine, Clinical Surgery and Clinical Medicine (these two classes attended in the Royal Infirmary), Midwifery, and Medical Jurisprudence, at the completion of the four years' study. Candidates must produce certificates of having been engaged in Practical Pharmacy during three months; of having attended a General Hospital for two years; of attendance, also, on six midwifery cases; and of out-door practice six months, acquired at a Hospital or Dispensary, or with a registered Practitioner. Success in the examinations transforms the student into a Bachelor of Medicine. Fee for the degree, £15. A Bachelor of Medicine may, upon the further payment of £5, attain the degree of Master in Surgery. For the degree of M.D., candidates must produce evidence of—(1) being twenty-four years of age; (2) of having attained the degree of M.B.; (3) of possessing a degree in Arts, or of having passed the additional examination in General Education noticed at the beginning of this article; (4) of having been engaged, after obtaining the degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The fee for the degree, in addition to the fee for M.B., is £5, and Government stamp for diploma, £10. The preceding fees are stated in the University circulars as subject to the approval of the Scottish University Commissioners. The number who graduated in the year 1860-61, were—Doctors of Medicine, 33; Masters in Surgery, 9. Several prizes are given to the gentlemen who distinguish themselves most highly at the examinations for degrees; and it may here be observed that, among the bursaries open to University students, there are five attainable by gentlemen *in Medico statu pupillari*.

(To be continued.)

THE WEEK.

THE RESPITE FOR THE CONVICT GARDNER.

The Medical Profession will have heard with unmixed satisfaction that the Home Office has decided on respiting the convict, Samuel Gardner. We, as Medical journalists, may also fairly congratulate ourselves on the share we have had in saving the life of a man whose guilt was neither proven nor shown to be probable on the facts adduced against him. The conductors of this Journal, feeling the unsatisfactory nature of the Medical evidence which had weighed so heavily against Gardner at his trial, requested a gentleman, who is at once one of the most clear-sighted, unprejudiced, learned, and judicially-minded Physicians in this metropolis, to review the whole of the case, and to draw up a statement for our columns. It was after an abridgment of the article which appeared in our last impression had been sent by its author to Sir George Grey and to the prisoner's solicitor, that the reprieve was granted. If a text be needed from which to enforce caution on the Medical witness in drawing inferences from the phenomena of post-mortem change, this case furnishes a most emphatic one. There is no doubt that the points of circumstantial evidence which told in favour of the prisoner were overbalanced by the importance attached by Judge and Jury to Medical testimony. These facts were, that no marks of blood were seen on him; that there had been no quarrel between himself and the deceased; and, above all, that, admitting the scream heard at six o'clock proceeded from the murdered woman, it was impossible that Gardner could have been the murderer, for he was proved to have been from home at the time. This last point was unheeded in consequence of Mr. Sequeira's assertion, that the deceased, when he saw her at eight o'clock, must have been dead at least three hours. The demonstration that this assertion was entirely without scientific basis, and was equally unsupported by experience, was sufficient in itself to throw the whole weight of probabilities, as regards Gardner, from the scale of guilt to that of innocence.

THE CASE OF ACCIDENTAL POISONING AT SHIELDS.

The verdict returned by the Coroner's jury in this case was to the effect—

"That Jane Gillespie had come to her death from taking strychnia received at the surgery of Dr. Fenwick, but that there was not sufficient evidence as to who the person was who had given it. They were of opinion that Dr. Fenwick's surgery should be managed more carefully, to prevent mistakes in future."

We are heartily sorry for every one concerned in this deplorable accident. We have no intention of attributing individual blame, nor do we think that the circumstances warrant it. It is to be hoped, however, that this case will convey a useful lesson to the Profession. We are stating an opinion, based on strong grounds, when we assert, that the dispensing department of Medical practice does not, as a rule, receive that care and attention from Medical men which its importance demands. Practitioners in good practice cannot dispense themselves, but they are not right in leaving the entire arrangement and management of their drugs to apprentices or assistants, unless, at least, the latter be qualified Medical men. A great reform in the system is needed.

UNDERSELLING IN PHYSIC.

We have all heard of the fellow in Douglas Jerrold's story, who vowed that he preferred rotten eggs to fresh. Some of our correspondents have asked why Medical officers to public institutions are not to receive salaries? The answer, on the part of the Governor or Guardians, may be, that the Doctors like having small salaries or no salaries, and that they would sooner take a post for nothing, if it bring them a little notoriety, than let a brother Practitioner have it with salary.

At the Dudley Board of Guardians, the other day, it was announced that Mr. Higgs, one of the Poor-law Surgeons, asked an increase of salary. It was also announced that Mr. Timmins, another Poor-law Surgeon, offered to take part of Higgs' districts, so as to cut him off from any claim for larger salary, and to do the work without any increase of his own pay. Of course, if this is the way Medical men treat each other, why wonder at the contemptuous treatment they receive from "Boards" and Committees?

DR. R. D. THOMSON ON ALUM IN BREAD.

On Saturday evening, at a meeting of the Metropolitan Association of Medical Officers of Health, the President, Dr. R. D. Thomson, read a valuable communication on the "Analysis of Bread," more especially as regards the detection of alum. If we may believe popular books, this is a very easy matter. It is stated in some books, that if a common knife be made red-hot in the fire, and plunged into a loaf, and if it be made rusty by this process, that there was alum in the bread. Nothing is said as to the effect of the fire alone upon the knife. Then there is the common process of making an infusion of the bread in distilled water, and adding ammonia, a process which produces a precipitate of phosphates, which used to be mistaken for alumina. Supposing the bread to be incinerated, and treated in the usual way with soda or potass, there is every reason to believe that the alumina which is thrown down may have been contained in the tests themselves. Dr. Thomson stated that some analyses had been published, in which the quantities of alumina alleged to have been found in bread, answered exactly to that which is ordinarily contained in the quantity of solution of potass used in testing. Supposing the tests pure, the alumina has, when found, to be subjected to an elaborate process for the elimination of the phosphoric acid with which it is combined. All these points were elucidated by Dr. Thomson, whose remarks drew forth some observations from Mr. Burge, of Hammersmith, who had given considerable attention to the subject of testing bread. The effects of alum in bread seem still to demand a good deal of research, since many of the accusations made against it rest evidently on *à priori* reasoning, and are not supported by accurate experiment. Some persons, evidently supposing that alum remains in bread as alum, undecomposed, and that it retains the properties of common alum, accuse it of being astringent, and causing constipation. They do not, however, show that alum given *per se* does cause constipation, and forget that a diet too exclusively composed of bread often causes constipation by itself, even without alum. Others, again, deny that the alum exists as alum, and accuse it of abstracting the phosphoric acid of the bread, and converting it into an insoluble phosphate of alumina. Hence they assert, that the blood is deprived of that which is a necessary element in its aëration, and the bones of the earthy matter necessary for their strength. But these gentlemen never have shown why it is that rickets is not more common, considering how common aluminated bread is said to be; nor yet why some children have rickets who never eat bread. On this, and on many other subjects, we want facts, facts, facts. We can reason on them at our leisure when we have them, but had better wait till then. Dr. Thomson's researches are a rebuke to the popular alarmists and traders in grievances, who are incessantly raising the howl of "Death in the pot," and we hope will lead to greater exactness for the future.

GARIBALDI'S WOUND.

When Mr. Partridge was first summoned to the assistance of the wounded General, there were, doubtless, Surgeons who envied him his good fortune in having been chosen, from amongst so many, as the representative of British Surgery, to decide upon a question which involved the limb, if not the life, of the man who has justly been termed by the French Premier as "the most popular man in Europe." It is known as a fact, that there were not wanting those who offered to go out to the Varignano if only their travelling expenses were paid; whilst, we believe, others actually made applications to be sent out to the wounded General without even the payment of their expenses. It was a grand opportunity for an English Surgeon to make his name familiar to all Europe. Those, however, who may have envied the Surgeon who was selected will, perhaps, felicitate themselves that they have not to bear the weight of the criticism which Mr. Partridge's Surgical character is now undergoing at the hands both of the public and the Profession. We sincerely hope, both for the sake of the illustrious General and of the distinguished Professor of Anatomy at King's College, that the opinion which Mr. Partridge arrived at on his first visit, and which, by the latest report, he "sees no reason to change," may be correct, viz., that the bullet is not lodged in the General's leg. We fear, however, after having read the whole particulars of the case, from the earliest to the latest reports, that the evidence in favour of the bullet being in the wound, is somewhat confirmed as time goes on. It must be borne in mind, that those Surgeons who were with Garibaldi at the time he was wounded concluded that the bullet was in the wound, and an incision was made near the outer ankle for the purpose of extracting it; and, although this operation failed in affording any direct evidence, those attending upon Garibaldi afterwards insisted that the bullet was in the wound. Professor Porta examined the wound, it is true, only six days after the injury, and stated that the ball was not lodged; but it should be remembered that at that date there must have been a great deal of swelling of the parts, which would, of necessity, render a correct diagnosis doubtful. Mr. Partridge saw the General, about a fortnight afterwards, under more favourable circumstances, and came to the same conclusion; and, in consequence of this opinion being unhesitatingly given, somewhat sharp criticism was directed towards the Italian attendants of the General. But the progress of the case, since Mr. Partridge's visit, leads us to wish that this Surgeon had been a little more cautious in his opinion, for it appears, that on the last occasion of his visit there was a considerable amount of swelling about the joint. Moreover, it was stated, in one of the reports forwarded by the Italian attendants, that a portion of the clothing which had been worn by the General had come away from the bottom of the wound. This fact in itself is of a most suspicious character, and, coupled with the indisposition of the wound to heal, and other circumstances, is certainly evidence in favour of the ball being present. M. Nélaton, indeed, distinctly stated that he felt the ball; but Mr. Partridge somewhat summarily disposes of this assumption by stating, in his report, that "Porta made a searching examination with his little finger thrust forcibly and deeply into the wound, but, though he turned the finger round in every direction, no bullet could be detected, showing that M. Nélaton was mistaken in supposing that he felt the ball within an inch of the orifice of the wound." This, however, does not disprove the opinion and assertion of M. Nélaton; for, although the finger is, in general, a better searcher than a probe, the French Surgeon's probe may have struck upon the projectile, whilst the finger of the Italian may have failed to detect it. In connexion with Mr. Partridge on his recent visit, the celebrated Russian Surgeon, Pirogoff, appears on the scene; and, with due deference to all the other celebrities, we must confess that the opinion of the Surgeon who was the chief at the Hospital of Sebastopol, is more looked up to in cases of gunshot wounds than that of all the others combined; and it appears, from the report which was issued, that M. Pirogoff distinctly affirms that the bullet is in the wound, although he has not succeeded in detecting it. Mr. Partridge has added his name to this report, which appeared in the *Times* for November 8, and, therefore, one

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would be inclined to believe that he agreed with the Russian Surgeon in his view, were it not for the circumstance, that the long report from which we have quoted appeared in the *Times* two days later, and there he states that he saw no reason to change his original opinion. It is somewhat difficult from this to know what Mr. Partridge's real opinion is; for, although he adheres to the original view, that the ball was not present, he agrees with M. Pirogoff that "the exploration of the wound, either with the finger or with instruments, is only indispensable when the certainty is reached that the ball has become mobile, and has neared the surface. Such exploration should be followed immediately by the extraction of the ball." It is impossible, therefore, from the conflicting opinions given, for us, or for any one else, to form any correct conclusion; but the evidence is certainly in favour of the ball being still in the wound, not in the articulation of the ankle itself, because, as Mr. Partridge says, "the joint is free from pain, and can be moved in flexion and extension." If the ball is in the wound, most probably it is embedded in the substance of one of the bones, the astragalus or the tibia, and in either case the movements of the ankle joint would be little interfered with. About one point there cannot be any doubt, viz., that, under the circumstances of the case, the treatment recommended is most judicious, and this consists in keeping the limb quiet in a Salter's swing, and watching for any changes which may take place. The question of amputation, which was discussed at one time, was entirely negatived.

PROFESSOR OWEN'S LECTURES ON REPTILES.

On Monday, the 17th inst., Professor Owen, F.R.S., Superintendent of the Natural History Department, British Museum, commenced a course of Four Lectures on "Reptilia," at the London Institution, Finsbury-circus. In his introductory remarks, he mentioned that during the past two years he had delivered courses on Mammalia and Aves, and that, carrying out his original intention to give a four years' course on Vertebrata, it was now his duty to describe the first division of the great series of cold-blooded, or Hæmatocryan animals. Commencing with the great and trenchant differences which divided reptiles from the classes above them, he called attention to the fact, that whilst in birds and mammals the heart attained its most perfect development, consisting of four distinct, dilated, muscular cavities, receiving and expelling blood, and circulating this mass of blood almost without consciousness, perhaps sixty or seventy times a-minute, the correlative development and concomitant affinities of the warm-blooded organisation led necessarily to the rapid formation of carbonic acid, to the rapidity of molecular change, and the conversion of the respiratory force into caloric or heat-force. Reptiles were air-breathers; they do not fly like the aërial, nor run like the terrestrial warm-blooded vertebrates, but crawl repent on the ground, and this sluggish mode of progression is concomitant with the modifications of their circulatory and respiratory systems. Their lungs are mere bags or bladders, the walls of which are more or less thickened in the series, from the crocodile to the *Proteus* or *Siren*, the lungs in the last-named *Batrachia* being reduced to mere thin membranes. With the exception of the crocodile, the rule can be generally laid down, that all reptiles have a heart composed of three cavities. The cerebral substance of the brain was much less developed than in birds; and in the tegumentary system, the trunk was not covered by the warm, non-conducting hair or feathers of the higher vertebrates, but by smooth, horny, imbricated, overlapping scales. Most reptiles are, strictly speaking, oviparous; there are, however, a few in which, so to speak, the nest is transferred from the outside to the inside of the body. At present the reptiles form the smallest and fewest of all the classes of vertebrata on the earth. The toad and the frog are useful insectivorous animals in our gardens; the crocodiles feed on the decaying flesh which engenders pestilential gases in the tropical atmosphere; the flesh of the turtle is an article of luxury at our tables; but reptiles, on the whole, do not subserve any important uses to the human race. But where the utilitarian fails to find a profitable remunerative product, the anatomist and physiologist are amply repaid for the careful examination which they bestow on reptilian anatomy. In the skull of the reptile can be easily demonstrated the generalisations at which philosophical anatomists have arrived, as to its primitive constitution in a series of vertebral segments; and when we turn our gaze into the long vistas of the past, we see in the few existing reptilia the lingering remnant of a class which has done its duty in a former world. Professor Owen gave a description of the *Crocodilia*. These were the highest organised existing reptiles, in which the teeth were in a single row, implanted in distinct sockets; the external nostril was single and terminal or subterminal. The anterior trunk vertebræ were provided with par- and diapophyses, and the ribs, or pleurapophyses, were bifurcate; the sacral vertebræ were two, each supporting its own neural arch, this arch being usually articulated by suture. The skin was protected by bony, usually pitted plates, of which the pattern varied in the different genera of crocodiles. In the extinct *Goniopholis* of the Swanage deposits there was a process extending backwards on each plate, which locked into a corresponding pit in the next plate. Crocodiles at the present day are only found of the procœlian type of vertebræ, in which the cup or articular cavity, developed in the vertebral centrum, was on the fore-end of the bone, fitting into the round ball of the vertebra before it. In the crocodile, the two ventricles do not communicate with each other, although the arteries immediately connected with them do. There are five toes on the anterior, four on the posterior extremities: the condyle is single; there are often eighteen or twenty teeth on each side of the jaw, a character which the immature crocodile exhibits immediately after exclusion from the egg. Beneath the pulp-cavity of each tooth, others are developed, which succeed in the vertical direction. As each tooth gradually pushes out its predecessor, by sapping its base, and lifting up the thin remnants of the cylindrical crown of the old tooth, a third germ is developed beneath it, and so on, during the life of the animal. Professor Owen contrasted the skull of the crocodile with that of the lizard, and especially drew attention to the double nostril, and to the looser and wider tympanic pedicle of the lacertian, as concomitant with the less amount of mechanical force in its jaws. Referring to the common anecdote detailed in all the old natural history books, that the crocodile only moves its upper jaw, he said that this assertion had some foundation in fact. When the crocodile, after quitting the river, lays its heavy head on the mud-bank, and wishes to open the mouth, the lower jaw, of course, cannot be pushed deeper into the mud, and the difficulty is thus obviated. A muscle can be traced from the mastoid process to the extreme angle of the jaw, which acts as a lever, which raises the heavy maxilla upwards, whilst the mandible rests almost immovable on the mud. He then traced the geographical distribution of existing *Crocodilia*. The crocodiles were almost cosmopolitan. They are to be found in Africa, in Asia, and even in the West Indies. The gavials, or ghârrials, with their narrow, slender muzzle, and the cushion which surrounds the terminal nostril—which cushion is dilatable in such a manner that the ghârrial can conceal the whole of its body under water, nothing being visible but the extremity of the nose—have their teeth adapted to catch fish, and are restricted to tropical Asia. The true alligators, or caïmans, are confined to the New World. In them the large side teeth in the premandibular part of the jaw are received into a pit between the maxillary and the premaxillary, so that the ends of the teeth are invisible when the fleshless lips close the mouth. In the crocodile this

pit is represented by a notch, which leaves the so-called "canine" teeth exposed. The characters of the orders *Lacertilia*, *Ophidia*, *Chelonia*, and *Batrachia*, were given with great brevity, as cited in the following table :—

Order, *Lacertilia.*—Vertebræ procœlian, with a single transverse process on each side, and with single-headed ribs; sacral vertebræ not exceeding two; two external nostrils; a foramen parietale in most. The only known British examples are the green lizard (*Lacerta viridis*) and the brown lizard (*Zootoca vivipara*).

Families.—Chameleontidæ, Geckotidæ, Iguanidæ, Varanidæ, Teidæ, Lacertidæ, Chalcidæ, Scincidæ.

Order, *Ophidia.*—Vertebræ very numerous, procœlian, with a single transverse process on each side, and single-headed hollow ribs; no sacrum; no visible ribs. Represented in England by the ringed snake (*Coluber natrix*), the viper (*Pelias berus*), and the *Coronella lævis.*

Families.—Crotalidæ, Colubridæ, Hydrophidæ.

Order, *Chelonia.*—Trunk-ribs broad, flat, suturally united, forming, with their vertebræ, the sternum, and dermal bones, an expanded thoracic-abdominal case, into which the limbs, tail, and usually the head, can be withdrawn. No teeth; external nostril single.

Families.—Terrestria (tortoises), *Paludinosa* (emyds), *Fluvialia* (trionyx), *Marina* (chelone).

Order, *Batrachia.*—Vertebræ biconcave (*Siren*), procœlian (*Rana*), or opisthocœlian (*Pipa*); pleurapophyses short, straight. Two occipital condyles and two vomerine bones, in most dentigerous; no scales or scutes. Larvæ with gills, in most deciduous.

Families.—Anoura (frogs), *Urodela* (salamanders), *Amphipneusta* (protei), *Abranchia* (amphiumas), *Apoda* (slow-worms).

The following amusing anecdote was told respecting the economical uses of the *Boa constrictor*:—In the Philippine Islands, the houses are built of two storys, the lower serving for ordinary domestic purposes, and the upper being merely a cockloft, in which to stow any unwieldy lumber. Mr. Hugh Cuming, F.L.S., was one day dining with one of the Spanish magnates, at Luçon, when, hearing a violent knocking and thumping over the ceiling above him, he was apprehensive that an earthquake was about to take place, and expressed his fears to his host, who replied,—"Don't be alarmed; it is only my boa killing a rat." The *Boa* is permitted to remain in a corner of the loft, where it does no harm to the human, but effects a fearful destruction amongst the murine inhabitants. The course of Lectures will be continued on successive Monday evenings; and in the next Lecture Professor Owen will proceed to expound the characters of the manifold fossil forms of Reptilia.

FOREIGN CORRESPONDENCE.

TURKEY.

Constantinople, October 12.

THE MEDICAL SCHOOL.

I will to day fulfil the promise I made in my last letter, and give you an account of the Medical School of this Metropolis. I have already mentioned that there are here three classes of Medical Practitioners,—viz., the native Doctors, who have had no education whatever, and who merely follow the traditions of their fathers and old women; European Physicians, who have immigrated from various western countries; and, finally, those who have been educated at the Medical School of Constantinople.

This School was founded in the time of Sultan Mahmoud, under the superintendence of a Frenchman of the name of Lat de la Galière. It was destined to furnish Surgeons to the army, which, after the extermination of the Janissaries by the Sultan, had been reorganised by him according to the pattern of European States. The School, however, never fulfilled this purpose. The teachers were far from being able to accomplish satisfactorily the task allotted to them. Instruction was given by foreigners who had, by the vicissitudes of fate, been landed on the shores of this empire, and who were not always men of great scientific acquirements. The language used was the Turkish, and those teachers who could not speak this taught their pupils, who were mostly young Mussulmans without any previous education, by means of interpreters. Some of the pupils of that time are, as I am informed, still Army Surgeons in active practice, while the most talented of them have long ago relinquished the Profession, and embraced the diplomatic service. Under the late Sultan Abdul Medjid, the school was reorganised by Dr. Bernard, an Austrian Physician, who had been specially called for this purpose, and thus it has remained ever since. The most important change then made was the introduction of the French language for lectures. The school was divided into two parts,—one for preparatory instruction, the other for Medicine itself. The former consists of four classes, in which the following subjects are taught: 1st class, Turkish and Arabic languages, French reading and writing; 2nd class, French grammar and writing, Arabic language; 3rd class, French syntax, geography, arithmetics; 4th class, French composition, cosmography, geography, universal history, and mathematics. The Medical department consists of six classes: 5th, botany, physics, and chemistry; 6th, physics and anatomy; 7th, anatomy, physiology, zoology; 8th, Materia Medica, general pathology, hygiene, minor Surgery; 9th, special pathology, clinical Medicine, Surgical pathology, clinical Surgery, Medical jurisprudence, midwifery; 10th, special pathology and clinical Medicine, Surgery and clinical Surgery. This is an extract from an official report made in 1850, since when the following additional subjects are being taught: history of Medicine, Surgical anatomy, pathological anatomy, and clinical ophthalmology. There are, besides, two special classes for apothecaries and dressers. In the former are taught botany, Materia Medica, and pharmacy; in the latter, minor Surgery and anatomy. Finally, there is a class for the instruction of midwives.

An important item in the reorganisation of the School was, that not only young Mussulmans, but all Ottoman subjects indiscriminately, Christians as well as Jews, should have access to it. As the School is destined to furnish Physicians, Surgeons, and Apothecaries for the Army, every pupil is, immediately on entering the School, in the service of the Government, by which he is cared for, fed, and clothed. The pupils have a military uniform, live in the School establishment (Cumharhanê, in the quarter Haskivey), from which they are only allowed to go out once a-week—the Turks on a Friday, which is their resting-day, and the Christians on a Sunday. Moreover, there are vacations during the month of Ramangan and the higher Christian festivals. The pupils receive a certain sum as pocket-money, which is much the same as that paid the private soldier (30 piastres, or 5s. a month). Each class has as superintendent one of the older pupils, who receives the salary of a non-commissioned officer.

At the head of the School is the Director. Until about twelve years ago, this office was united with that of Chief of the whole Medical Department of the Empire. The Chief of the Medical Department had at that time a highly influential position: he was not subject to the Ministry of War, and could always approach the Sultan in person. All orders and decisions with regard to Medical affairs, whether civil or military,—all appointments, removals, depositions of the Medical men employed by the State,—were in his hands; and it was only the administration of the quarantine which was then, as well as now, quite independent. The Chief of the Medical Department was always a high Turkish dignitary, and not a Medical man. This place no longer exists, and the direction of the affairs of the School is in the hands of a Director, subject to the Minister of War. Until now the Director has always been a Turkish *employé*, not necessarily a Medical man. The salary attached to this office is 10,000 piastres a month (about £1100 per annum). The present Director, Dr. Arif Bey, who has the rank of Colonel, is a former pupil of the school. The other *empl yés* at the School are a Vice-Director, a Manager, three Secretaries, and several clerks. There are at present twenty-seven Professors, of whom ten belong to the Preparatory School, and seventeen to the Medical School proper. There are, besides, four or five Beys,—that is, Doctors who have been educated

at the School, and have received the rank of Colonel, and who instruct the pupils in minor Surgery. Finally, there is a head midwife. Most of the Professors, who are Turks, Greeks, and Armenians, have been educated in France: a few are pupils of this School; and there are an English and a Swiss Professor in the preliminary School, and a French Professor of Clinical Medicine in the second divison. Several Professors rank as Colonels; others have a civil rank, which places them between that of a Colonel and a Brigadier-General, and others have no rank whatever. The salaries paid are also very various, and have not the slightest regard to the importance of the chair, nor the scientific eminence of teachers: but the amount depends solely upon favour, and varies from 2000 to 6000 piastres a month (£17 to £50). Until quite recently, the Professors of Zoology, Syphilis, Medical Jurisprudence, Materia Medica, and General Pathology, had 6000 piastres, while the Professor of the Medical Clinique had only 3000, and the Professor of Anatomy only 2000 piastres a month; but this incongruity is now partially abolished. Although the staff is, therefore, very numerous, there are other *employés*, in the shape of assistants to Professors, Doctors of the School, and a dozen other well-paid individuals, who are members of the Council of Medicine, about which more presently. The appointments are given on the same principle as the salaries. Any Doctor, who has wit enough to ingratiate himself with a Turkish dignitary, can find access to the staff of the Medical School; and not only are vacant appointments given, without regard to qualifications, but new chairs are also created for favourites, if there are none vacant at the time. This accounts for the large number of Professors at the School; and, indeed, it would seem as if the School was more for the sake of the Professors, than the Professors for the School. Under such circumstances we cannot wonder that the staff is so very far from brilliant, and that the School, as a scientific institution, is without any importance whatever; for even if a few able Physicians have, from time to time, found access to it, yet their aspirations have, of necessity, been smothered in the thick fog which surrounds the whole Institution. Amongst the Professors I may mention M. Fauvel, who has the Medical Clinique, and who is, no doubt, the most scientific man among them; but he owes his appointment, neither to his scientific acquirements, nor to his considerable talent as a lecturer, but to the influence of the late French Ambassador, M. Thouvenel, who also procured the appointment of Dr. Barozzi to the chair of General Pathology. This latter chair was formerly filled by Dr. Mavroyeni, a Greek, who has been educated in Vienna, and who is now Professor of Special Patnology. The three subjects just mentioned might well be taught by one Professor, were there not the paramount necessity of providing places for favourites. The Surgical Clinique is in the hands of Dr. Carathéodory, who is an accomplished Surgeon, but who, on account of the few beds allotted to him, and perhaps, also, in consequence of an extensive private practice, is not able to do so much as he otherwise might. Anatomy had, for years, been wofully neglected, until, about eighteen months ago, a clever and conscientious Greek, M. Callias, was appointed to the chair. The number of subjects for dissection is, however, far too small. Negro slaves who have died in the slave-market, and galley slaves, are the only subjects allowed to be dissected, and even these are often, through the negligence of the Turkish *employés*, not sent to the School. Of the other chairs, not much can be said; they are mostly held by Professors who lecture from some French hand-book. Physiology is taught without Physiological experiments, and Pathological and Surgical Anatomy without specimens; for there is no museum, and autopsies are very rarely allowed. A chair for Microscopy has as yet not been founded; so there is an opening for some one of the numerous men who would, without ever having seen a microscope, think themselves fully capable of instructing the rising generation in the use of this instrument, just as, to repeat a saying of Sydney Smith, Lord J. Russell would not hesitate to accept the command of a fleet.

The accomplishments of the pupils form the best standard for judging of the value of the School. These are very different, according to the nationality. The Greeks are generally the most, and the Turks the least, proficient. The Greeks are clever, anxious to learn, and industrious; while the Turks are dull and idle. Moreover, the latter have no such inducements to exertion, as the mere fact of their being Turks ensures them a good career. In Europe, one hears much of the equality among the subjects of the Porte, without regard to nationality or creed; but such is far from being the case. All the more important places of the Turkish administration are now, as formerly, given to Turks, who continue to be most unjust to the Christians whenever they have to decide between the latter and one of themselves. With regard to the admission of pupils, preference is always given to young Mussulmans, although the Christians may be far superior to them in learning and talent. In the same way the advancement from one class to another is mostly settled between the Professors and *employés* in such a manner, that even the dullest boy, provided he be a Turk, may get on very well, while the Christians are dealt with more severely. The consequence is, that a large number of Turks become Army Surgeons without knowing anything of Surgery; and some of them cannot even read or write French, although this is the language of instruction. However, the greatest drawback to this School, which is specially destined for the education of Army Surgeons, is the want of a sufficient Surgical education. An Army Surgeon may do very well without a profound knowledge of the history of Medicine and Midwifery, but he ought to be able to perform operations. A few pupils have, it is true, in spite of deficient instruction, become able Surgeons; but these exceptions only prove the rule. The wretched standard of Turkish Army Surgeons generally became strikingly apparent during the last war with Russia. The pupils are not much better taught in Medicine. The Dressers, who form a special class, and who are instructed in minor Surgery, can do little more than extract a tooth, open a vein, and give an enema, so that they are quite useless for the Army. The Apothecaries are better educated, although they are not able to make an analysis. As native midwives are frightfully ignorant, it was a good thought to have a class for midwives in the School; but, as there is no Lying-in Institution connected with it, it is of no use to them; for what advantage can there be in mere theoretical instruction to ignorant women? The Greek and Turkish languages are taught them, but it is seldom that one of them can read or write either.

Before closing, a few words on the legislative administration of the School. The direction of its affairs is now divided between the director of the School, who administrates, and the Council of Medicine, who legislate. The latter consists of the Professors and the full Surgeons of the *corps d'armée* of the metropolis, together with the few individuals mentioned above, who are simply members of the Council, and who receive salaries as such. This Council arranges the course of instruction, the army Medical service, civil Medical affairs, etc. It has also judicial powers in questions of Medical jurisprudence as well as in Professional disputes. Although, therefore, the sphere of action of the Council may appear extensive, it is, in reality, very narrow, as all resolutions must first be submitted to the Council of War and the Sultan, before they may be passed; and when this is done they mostly remain dead letters, as there is neither power nor energy in the School to enforce them.

It is certainly a mistake to give legislative and administrative powers to the Professors; these generally prefer playing the legislator and administrator to training dull boys, and are more apt to intrigue for their respective creed, nation, and caste, than to care for the weal and woe of the institution. Endeavours to reorganise the School have been made for some years; but, as the Government cannot judge of its defects, and it is the interest of so many to keep the real state of affairs hidden from it, these endeavours have hitherto failed. The Government only knew that the School was an expensive luxury; and under the late reign a committee was formed ostensibly for the improvement of the institution, but, in reality, to diminish the number of Professors; several of the latest intruders were then dismissed; but, as each one was supported by some Turkish dignitary, they were only ejected one day, to be reinstated, by order of the Sultan, the next.

When the present energetic and intelligent ruler ascended the throne, a real change took place, and the salaries of the Professors were, probably in consequence of a recommendation to this effect having been made by Marco Pasha, the Chief Physician to the Serail, reduced to sums varying from 2000 to 4500 piasters. As might have been expected, this raised the direst passions in the hearts of the much-injured individuals, and a short time ago a revolt broke out amongst the pupils of the School. This has occasioned the nomination of a fresh committee for reforming the School; but those who

are best able to judge are of opinion that it is past mending, and that the best remedy is to abolish it altogether, and found a new School, under the direction of an efficient European Physician, and one who is not subject to the influences of nepotism.

GENERAL CORRESPONDENCE.

TWO CASES OF SCARLATINA, EARLY IN THE DISEASE TERMINATING FATALLY, FROM INDURATED CELLULITIS OF THE NECK.

Letter from Dr. John Leney.

[To the Editor of the Medical Times and Gazette.]

Sir,—On the evening of October 31, both children (Catherine E., aged 5½ years, and William E., aged 3 years) became suddenly chilly, and, at the same time, diarrhœa set in. On November 1, the eruption showed itself, and on the 2nd was more fully out. At eleven o'clock a.m., of November 3, I was called on to visit them. On both children the eruption was fully out, and in neither case was the heat of the skin, tongue, pulse, or soreness of throat, unusual from that in the ordinary scarlatina anginosa,—in a word, nothing to warrant me to think otherwise than that they would proceed favourably.

At six o'clock a.m., of November 4, I was sent for to see the boy, who I was told had repeated convulsions. I found him extremely restless; great jactitation, and altogether unconscious of what he was doing; and was informed by the mother, that the evening previous she observed increased tumefaction of the neck. His face was now much flushed and swollen, and congestion of the brain existed; the parotid and submaxillary regions, also the sides of the neck, as low as the clavicles, were immensely swollen and hard; a yellow ichor was running from the mouth and nose; the respiration resembled that of croup; the eruption was rapidly fading; the pulse not to be felt; this child died at one o'clock p.m., in true asphyxia.

The girl's neck commenced early in the morning to become swollen, and at this hour, one o'clock p.m., was painfully so, throwing the head far back (she had neither convulsions nor congestion of brain); the eruption was fast fading; noisy, guttural respiration, and yellow ichor running from mouth and nose; pulse rapidly failing; she died at five oclock p.m. Both these children had mumps a fortnight previous to scarlatina.

This is that fatal form of the disease so well described by the late Dr. Graves, and since fully laid down by Dr. Henry Kennedy, in his truly valuable work on "Scarlatina."

I had not a case of this form of the disease since 1849, in which year it was very fatal in Ireland.

These cases of indurated cellulitis occurred earlier than any I have been in the habit of meeting with. Dr. Graves states from the eighth to the eleventh day is the usual time. Dr. Kennedy coincides with Dr. Graves, but states cases which set in, in this fatal form, at the onset.

Now, when these mortal symptoms set in and progress so rapidly, what is to be done? The gentlemen above quoted acknowledge to have failed in all their efforts.

Would tincture of iodine, early applied to the fauces, and a strong solution of iodine, short of blistering, applied freely over the neck externally, check the malady?

I am, &c.

Bray. John Leney, Surgeon, M.D.

INFANTILE SYPHILIS—TWO CASES TREATED BY CHLORATE OF POTASH, WITHOUT MERCURY OR IODINE—RECOVERY.

Letter from Dr. Charles Drysdale.

[To the Editor of the Medical Times and Gazette.]

Sir,—The question, as to the treatment of syphilis, is one which seems again destined to come before the Medical Profession for further examination.

The opinions lately promulgated by Mr. Weedon Cooke in London, and those of Professors Hughes, Bennett, and Lyme, in Edinburgh, have, along with the experiments of Fricke and others, gone far to disprove the advisability of the classical or mercurial treatment of syphilis. Even the most ardent supporters of the treatment of the eminent Mr. Ricord, in this country, are loth, it seems to me, to prescribe, as he does, a daily dose of the iodide of mercury during six months, followed by three months of large doses of pot. iod.

The following cases have been given to show, that even infantile syphilis may get well without any classical treatment:—

Case 1.—G. D., infant, aged 11 weeks, was seen by me at the Farringdon Dispensary, May 17, 1862. This child has now, or has had for four weeks past, an eruption over the greater part of its body. Has snuffled also during the last fortnight. The eruption is of the papular order, and is copper coloured; is must profuse over the buttocks. There are fissures around the mouth and anus, and mucous tubercles in the latter situation. Child's aspect is wizened and aged. Mother says that it is wasting away. It suckles freely, but is very fretful, and cries much.

History.—Child's father, a bootmaker, is in delicate health, and the mother says he drinks and is dissipated. The mother has had three children at full time. The first child lived six weeks; the second, two hours; the third, four weeks. The mother is healthy, nor does she seem to have been infected by the children.

Treatment.—Child to take, four times a-day, a teaspoonful of the following mixture:—Chlorate of potash, ʒj., aquæ, Oj. Great care to be taken that the child be kept scrupulously clean, and the bowels to be kept open by castor oil.

May 24.—The papular eruption on the arm is now tubercular in character. Sub-occipital glands much enlarged. Rep. pot. chlor.

31st.—Eruption fading.

June 18.—Eruption almost gone; sub-occipital glands enlarged.

July 23.—Child heavy, almost quite well. No symptoms.

October 15.—Met the mother with the child. It is, she says, perfectly well. Has had no return of the eruption.

Case 2.—An infant, 12 months old, seen at Farringdon Dispensary, May 3, 1862. The child has copper-coloured discoloration in patches over different parts of its body. Left elbow and right knee inflamed and hot. The child has coryza, and is very fretful.

History.—The child was born at seven months. The mother suffered from sore throat during pregnancy. Had the snuffles soon after birth.

This child was treated by Mr. Allingham with chlorate of potash and hydrochloric acid, and became perfectly well.

I should be glad to hear any observations on this subject from persons who have tried both the classical and non-mercurial treatment.

I am, &c.

Charles Drysdale, M.D., M.R.C.P. Lond., F.R.C.S. Eng., Physician to Farringdon Dispensary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 11, 1862.

Dr. Babington, President, in the Chair.

A paper, by Mr. John Wiblin, was read, containing

AN ACCOUNT OF A RECENT REMARKABLE CASE OF SCROTAL ELEPHANTIASIS IN WHICH THE TUMOUR WAS REMOVED.

The subject of the following history, George F——, aged forty years, was a native of Southampton. He was a man of sallow complexion, but in other respects seemingly of healthy aspect; married, but without family. From the age of sixteen he had worked as an ordinary labourer, with the exception of two years engaged in the coasting trade. His habits were, and had at all times been, temperate, and, according to his own statement, he had suffered from serious illness once only, in childhood. He became ruptured on both sides in 1844, and wore a double truss for three years. After this period the rupture on the left side rapidly increased in size, and a special truss was fitted to it, but with little advantage, and about a year subsequently he abandoned the use of the instrument

altogether. In 1848 he contracted syphilis, for which disease he took corrosive sublimate, under the superintendence and by the advice of a druggist, over a period of six months, when he considered himself perfectly cured. About three months after he had become the subject of syphilis, the foreskin and integuments of the penis began to enlarge, and he constantly experienced a dull aching pain at the extremity of that organ. From this period the scrotum also gradually increased in size, becoming hard, brawny, heavier, and more pendulous. When first examined, the abnormal growth of the scrotum and prepuce had attained the following dimensions:—Preputial growth—Length, sixteen inches; circumference, thirteen inches. Scrotal growth—Vertical circumference from the symphysis pubis, following the raphé, to within two inches of the anus, three feet six inches; horizontal circumference, three feet ten inches; lateral circumference, three feet four inches. Six months after he had contracted syphilis, a squamous eruption appeared (vitiligo), which continued more or less to the time when he came under observation, and affected chiefly the scalp, nape of the neck, arms, body, and the hypertrophied scrotum. Recently, the scrotum and prepuce had increased rapidly in size as compared with the previous rate of growth. The swelling, moreover, had become extremely burdensome, painful in some spots, and in others, particularly where friction was unavoidable in the act of walking, ulceration had ensued, giving rise to a most troublesome and peculiarly offensive secretion. The tumour (as ascertained by means of a steelyard) weighed over fifty pounds. The prepuce presented a remarkable nodulated appearance, and the extremity was so curved or involuted, that on a superficial examination it was liable to be mistaken for the penis itself. Through the external opening the finger could be readily introduced, to the extent of five or six inches, and at the extremity of the canal formed by the elongation of the prepuce, the glans penis could be readily detected. The scrotal portion of the diseased structures was also nodulated in parts, with smooth intervals, and here and there the surface was scarred with cicatrices of old and recent standing, the result of the vitiligo. On the right side, and at the most dependant part of the growth, a large quantity of fluid was believed to exist; on the left side a very large hernial swelling was easily recognised, which was thought to be reducible. It was determined, with the assent of many professional gentlemen, to remove the diseased mass. To diminish the risk arising from hæmorrhage, a species of clamp, suggested by Mr. Spencer Wells, and by the action of which the neck of the tumour might be constricted, was made. This clamp consisted of two movable parallel bars, connected by a screw at each extremity. By the use of this instrument it was hoped, not only to restrain hæmorrhage, but to retain the ruptured gut within the abdominal cavity. Means were also adopted to diminish, as far as practicable, the amount of blood within the tumour. An iron bar, to which was attached a sliding hook, with tackle and fall for elevating and depressing the mass as circumstances might require, was fixed to the ceiling of the room occupied by the patient. By this arrangement, on the morning of the day of operation, at eight o'clock, the tumour was elevated above the level of the body, and kept in this position, covered with ice, until two p.m. The patient was then gradually brought under the influence of chloroform, administered by Dr. Palk, and the operation was carried out in the following manner, the hernia being previously reduced, as it was thought, and the clamp applied:—The elongated and thickened prepuce was first slit up to the point where the glans penis had previously been ascertained to be imbedded in the morbid mass. A perpendicular incision, about eight inches long, was then made along the dorsum penis to the symphysis pubis. An attempt was now made, but unsuccessfully, to introduce a staff into the urethra. The penis was next seized, and rapidly and easily detached from its surrounding adhesions, and dragged upwards out of harm's way. This constituted the first stage of the operation. The second stage consisted in making an incision on the right side, fourteen or sixteen inches in length, from the lower end of the perpendicular cut to the most depending part of the scrotum. The forefinger of the left hand was then thrust deeply into the wound, and served as a guide, upon which was directed a stout, long-pointed bistoury, to open out the deep-seated structure, the thickness of which averaged from four to five inches. Large quantities of serum flowed from the blubber-like mass at each stroke of the knife. The right testicle was found towards the middle of the second incision; it was seized, dissected out, and drawn up to near the right inguinal ring, and given into the charge of an assistant. A similar method of procedure was attempted on the left side, but here the confusion of parts was such that the testicle was wounded before it was recognised, and the hernial sac opened. Within the sac were found several coils of intestine, which had, however, escaped all injury from the knife. The pressure of the clamp was immediately diminished, and efforts made, but in vain, to reduce the gut. It was then determined to remove the diseased mass in two portions. To this end the tumour was transfixed from before backwards by a long catlin, the point of which was brought out in the centre of the perineum. Then the whole of the mass on the right side was swept away. Next, the hernial sac was carefully separated from the surrounding structures, and with a few strokes of the knife the left portion of the tumour was speedily removed. About ten or a dozen ligatures were required to arrest the bleeding from several very small arterial branches; the opening in the hernial sac was closed by three stitches; many points of the exposed surfaces were drawn into tolerably good apposition by a few sutures, and, finally, the parts were dressed with lint saturated with oil. The operation occupied twenty minutes; tying the vessels, bringing the edges of the wound together, and dressing, twenty-five minutes more. The loss of blood was estimated at from thirty to forty ounces. This trifling hæmorrhage was to be attributed to the effective manner in which Mr. Spencer Wells regulated the pressure of the clamp, and to the rapidity with which Messrs. H. Smith, Mason, Carr Jackson, and Osborne followed every stroke of the knife, and controlled the mouths of the bleeding vessels. The solid portion of the tumour after removal weighed nearly thirty pounds. After the operation there was considerable and persistent irritability of the stomach. On the 23rd, slight pain in the abdomen was complained of; on the 24th, the stomach was more tolerant of food, but the pain in the body continued; on the 25th, tympanitis occurred, the irritability of the stomach increased, the respiration was disturbed, and the whole system disordered. The wounds were bared for the first time, and the hernial sac and penis were found to be covered with healthy pus. A little turpentine was added to the dressing. During the night all the unfavourable symptoms became worse, and death took place on the following morning, at ten o'clock. Early on the 27th, the abdominal cavity and the contents of the hernial sac were examined. In the former no abnormal appearance was found, except an enormously distended condition of the intestines. The hernial sac was filled with large coils of small intestine, firmly matted together by old adhesions, and the cæcum and appendix vermiformis were tightly bound to the upper and outer portions by fibrinous bands of long standing. There was no strangulation of the gut, but the lowermost portion of the protruded intestine was gangrenous. This was, no doubt, the cause of death. Mr. Wiblin terminated his paper with a summary of the most noteworthy cases recorded of scrotal elephantiasis.

Mr. Fergusson said that he had observed that, after the reading of papers like the one just read, there was considerable hesitation in rising to give an opinion. He rose in order to endeavour to elicit an expression of opinion on it, and in order to obtain further observations on so important a subject. The subject was of great interest, as so little was known of the disease in this country. We had, however, happily, the testimony of Surgeons educated in England as to the value of operation in these cases. He could not but admire the skill and boldness of the Surgical means adopted by the Author in the case he had related. It was well known that operations in some cases were fatal, but in many there was great and marvellous success. Patients had lived after the removal of tumours weighing as much as 140 lbs.—equal to the weight of the whole body. He (Mr. Fergusson) considered that Mr. Wiblin had done honour to the Profession and to his brother Practitioners in London, in bringing the case before their notice, and had helped to open the Session of the Medico-Chirurgical Society with *éclât*. Every one would deplore that the patient had died; but it was clear, from the history of the case, that everything had been done to prevent this issue. For his part, he considered that the case was one of those in which the Surgeon could have little or no control over the result. His (Mr. Fergusson's) experience in these cases was not large. He considered that the chief weight of the tumour in this case, and also in the case of other tumours, was due as much to serum as to solid matter. Mr. Fergusson

then referred to the bulk tumours attained from the infiltration of serous fluid as a result of inflammatory action, and to the collapse of such masses after removal. Another cause of the size of elephantoid tumours was the enormous size of the blood-vessels. He had had the advantage of seeing Mr. Wiblin's case before the operation, and he considered, that in this instance the tumour was not vascular, as turned out at the operation. In some cases, however, the veins were almost as large as the small intestines. Many (Mr. Fergusson said) would be deterred from operating in these cases, on account of hæmorrhage, but he felt convinced that the bleeding was rather from the tumour than from the rest of the system, and hence, that the patient was not exhausted on account of the loss of blood which, strictly speaking, was not part of his system. It was more part of the tumour than part of the body.

The Author said that the specimen he had exhibited showed a large hernial protrusion, which was no doubt the cause of death. It ought, however, to be remembered that, of all the Surgeons who examined the hernia, no one thought that it was irreducible. If it had been thought to be irreducible, the clamp would not have been used.

Mr Spencer Wells said, as the cause of death after this operation had been a good deal canvassed, especially with reference to the use of the clamp, and as the author had very kindly given him (Mr. Wells) any credit that was due for suggesting the use of this instrument, he was naturally anxious that its advantages and dangers should be fully discussed. When talking over the proposed operation with Dr. Wiblin, the existence of the hernia was, of course, a very serious consideration. But it seemed to them, and to others who examined the man, that the hernia was reducible. It was easily returned with the usual gurgling ; and when firm pressure was made on the ring, the impulse on coughing seemed to stop there. So that the existence of an irreducible, as well as a reducible, hernia was not suspected. But it was felt that mere pressure by an assistant would be a very untrustworthy mode of keeping up the hernia during the operation ; and that its accidental descent would be a most serious complication of a proceeding otherwise sufficiently formidable. So the clamp was prepared with the double purpose of keeping up the hernia, and of arresting hæmorrhage. Had the hernia been a reducible hernia only, the clamp would have fulfilled both these purposes admirably ; but as it had compressed the portion of intestine adhering within the sac, the question naturally arose, whether any harm had been done by the pressure. After the man's death, Dr. Wiblin sent to town the parts now on the table of the Society. They were examined by Dr. Druitt and the speaker—honestly, he hoped, with the single object of ascertaining the worth of the instrument for future use—and it seemed quite clear that the pressure had not injured the intestine. It had been protected by a layer of dense tissue an inch or two in thickness ; there were no signs of injury or gangrene near the neck of the sac, where the pressure was exerted, the only gangrenous portion being quite at the fundus of the sac, where this had been wounded. If any one supposed that the gangrenous condition of the surfaces laid bare by the operation could be due to the clamp, he would remind them that, in many of the Indian cases recorded by Dr. Webb and others, where no clamp was used, precisely the same sloughing took place along the lines of incision; while in a case, recently recorded by Dr. Fayrer, who had used a clamp, there was no sloughing. The fact was, that gangrene was a common cause of death after this operation. It was just what might be feared when extensive incisions were made in lowly-organised structures ; and the whole history of this man's case after operation led to the conclusion, that he had died, not of any injury to the intestine, but of the low form of constitutional fever, or blood-poisoning, which so often accompanies extensive local gangrene.

Mr. Haynes Walton said that he had several years ago operated in a case of elephantiasis with success. The patient was, at the time, almost dying, but recovered, and when seen last, a few weeks ago, was well.

Dr. Robert Lee read a supplement to a paper entitled,

AN ANALYSIS OF 162 CASES OF OVARIOTOMY WHICH HAVE OCCURRED IN GREAT BRITAIN, PUBLISHED IN VOLUME XXXIV. OF THE "MEDICO-CHIRURGICAL TRANSACTIONS."

Dr. Lee briefly states that his experience during the last eleven years, in regard to ovarian disease, convinces him that the published records of ovariotomy do not truthfully represent the statistics of the operation ; successful cases having been made known, and the unsuccessful ones kept in the background. In none of the cases which have occurred under his own eye has he thought it right to recommend the operation ; and he considers the slow progress made by many of the cases to have been a justification of the course pursued by him.

The President said that, fifteen years ago, he saw Mr. Walne operate on a case of ovariotomy in a woman, 29 years of age. He made the large incision. The patient recovered, and was well now.

Dr. Tyler Smith said that, for twenty years, he had, as Dr. Robert Lee still did, recommended that cases of ovarian dropsy should either be let alone, or be treated by palliative means, as tapping, etc. He then conscientiously believed that he was doing more good by these palliative measures than by ovariotomy. He saw, however, much misery and many miserable deaths from this disease. One case, especially, led him to consider ovariotomy in a more favourable light. Three years ago he saw a case of Dr. Lee's, which he considered favourable for ovariotomy. Dr. Lee thought him a madman for entertaining such an idea. The sudden death of this patient made him resolve in the next favourable case to try ovariotomy. He had since done the operation in fourteen cases. He had not rejected a single case. As regards diagnosis, of which the Author had spoken in his paper, he would add, that in some of these cases Dr. Lee's diagnosis had been wrong. No one could be infallible in diagnosis, but for the last three years he had made but one mistake. With this exception, all the cases operated on were ovarian. In this case, which was one of cancerous disease of the mesentery, he had been unable to complete the operation, and the patient died in twenty-four hours. The patient was, at the time of the operation, then in danger of death. Of the fourteen cases, three had died, and except one, done on Friday week, which was going on well, all were now well. So that of fourteen cases, three were dead, eleven cured, and there was one mistake. He would ask the Author if he had had equally good results from his do-nothing practice. If so, his results were different to those he (Dr. Tyler Smith) had obtained before he adopted ovariotomy. He hoped that, some time, the whole statistics of ovariotomy would be published. He thought that the operation was safer, easier, and less dangerous than it was believed to be ; and that the chief danger arose from Medical men, like Dr. Lee, whose recommendation induced the patient to put it off. He (Dr. Tyler Smith) thought, however, that we should not operate until the patient's health had begun to fail ; but in some cases the patient insisted on the operation. We have to deal with minds as well as with bodies, and patients often will not endure a life of uncertainty. In conclusion, he would add, that Dr. Lee had not brought forward anything against the operation, and that the hundreds of women saved by ovariotomy would have a stronger influence than his mere dictum. Two of the cases on which he had operated had been patients of Dr. Lee, who strenuously opposed the operation.

In reply to Dr. Beaman, Dr. Tyler Smith said that the two patients of Dr Lee, referred to in his concluding remarks, recovered.

Mr. Spencer Wells regretted that the substance of the documents accompanying Dr. Lee's paper had not been made known to the meeting, because the portion of the paper which had been read contained neither facts nor arguments, and all that any one could do, by way of reply, was to endeavour to prove that Dr. Lee's objections to ovariotomy should not lead to the condemnation of the operation. Three principal objections were stated by Dr. Lee. He said that women suffering from ovarian disease may live for a long time under palliative treatment ; secondly, that it is often impossible to determine whether a tumour be really ovarian, and if so, whether it can be removed ; and, lastly, that ovariotomy is a much more dangerous operation than published statistics would lead us to believe. In reply to the first of these objections, it would be admitted by every one who had followed a case of ovarian disease to its natural or ordinary termination, that it was difficult to imagine a life of more hopeless misery ; and that nothing could be more painful than to watch, day by day, a poor creature, who for some reason was beyond the aid of Surgery, sinking into her grave, worn out by protracted suffering. Yet this was the fate to which Dr. Lee would

condemn hundreds of poor women who might be restored to perfect health by ovariotomy. Then as to the alleged difficulty of diagnosis, and the distressing mistakes which had been recorded, it must be acknowledged that these mistakes were errors of a bygone age. It would be almost impossible for any one acquainted with the ordinary practice of percussion to repeat the error of the earliest Scotch ovariotomist, and open the abdomen of a woman whose only tumour was formed by flatulent distension of the intestines. Nor could any one who had ever heard the placental murmur, or the sounds of the fœtal heart, repeat mistakes which had been made in the later stages of pregnancy. In the earlier periods of pregnancy, doubts would sometimes arise; and in cases where ovarian disease complicated pregnancy, an occasional error might be unavoidable; but, in the great majority of cases, the diagnosis of ovarian disease might be brought as near to a positive certainty as could reasonably be hoped for in any department of Surgery. From his (Mr. Wells's) own experience of forty-six cases in which he had performed ovariotomy, of six others in which he had commenced the operation, or had made an exploratory incision, and of very many in which he had either simply tapped, or had injected iodine, he should say that the diagnosis was generally easy; and though, in some rare cases, it was not so, yet no important mistake had been made in any one of these cases. This, alone, was enough to prove that any supposed difficulty in diagnosis could not be maintained as an objection to ovariotomy; and the only logical conclusion which could be drawn from the mistakes due to the gross ignorance or gross carelessness of some Surgeons, or from the very rare errors which might be unavoidable to the most careful and the best instructed, was not the condemnation of a useful operation, but the endeavour so to improve our means of diagnosis as to make errors less and less excusable. In no other department of Surgery would the possibility of an occasional mistake lead to the abandonment of all Surgical interference, and it would be quite as logical to decry lithotomy because a neither careless nor incompetent Surgeon might, possibly, cut into a bladder which did not contain a stone; or to condemn the ligature of arteries, because some one had tied an artery to cure an aneurism which did not exist; or to raise an outcry against the excision of joints, because a joint had been cut out which afterwards appeared to be so little diseased, that a few weeks' rest would have saved the limb—as to denounce ovariotomy because some Surgeons who had performed it had made mistakes. Then, as to the mortality—undoubtedly it was high—but it was high because we are often driven to operate in cases where the patient has been so broken down by the disease that the hope of success is very faint. If only favourable cases were operated on, a very large proportion would recover. We were now gaining the knowledge which enabled us to say to a patient, "The chances are ten to one, or five to one, or two to one against you; or the chances of success and failure are about equal; or they are two to one, or five to one, or ten to one in your favour." Out of his (Mr. Wells's) own 46 cases, 17 had died and 29 had recovered, but many of them were very desperate cases; and he could say that he had scarcely ever lost a patient when he had felt very confident of success before the operation. Ten out of the last eleven cases had recovered. But it is said that the mortality is greater than the Profession believe, because unsuccessful cases are concealed. This might be said of every other Surgical operation. Men take pride and pleasure in their successes, and remember them, and make them known; while their reverses have often been so painful that they try to forget them. At any rate, they do not publish them, unless, for some special reason, they feel bound to do so. So in estimating the mortality of every operation,—lithotomy, amputations, herniotomy, and so on,—it is always necessary to make some allowance for probable error, due to the non-publication of unsuccessful cases; but, with regard to ovariotomy, so much attention had been directed towards it, that we probably had a larger proportion of cases published, compared to the number of operations performed, than could be collected respecting any other operation. He (Mr. Wells) *knew* that none of his own cases had been kept back,—he fully believed that many other operators had been equally truthful,—and he would join most warmly with Dr. Lee in denouncing the conduct of any man who could bring forward his successful cases, and keep his fatal cases wholly or partly concealed. No punishment could be too severe for such flagrant dishonesty. But it was a libel on the Profession to suppose that such an offence was common enough to throw discredit upon an operation which had done honour to English Surgery. The Jury on Surgical Instruments in the International Exhibition have published their report—and a most able report it is—just what one would expect from the eminent men who compose the Jury—and among "the most remarkable additions to general Surgery since 1851, which receive illustration in the present Exhibition:" the Jury thus speak of Ovariotomy:—"Described by De Haen, as an operation of which it would not do to talk, lest some reckless Surgeon should attempt its performance; and by Scanzoni as a proof of madness in the patient who should adopt, and of crime in the Surgeon who should abet, such a mode of suicide; and, again, energetically denounced by Velpeau as an operation on no account to be admitted into French Surgery—it is a source of legitimate satisfaction to English Surgeons, from William Hunter downwards, that, thanks to their perception of the conditions necessary to success, and their courageous self-reliance in the face of difficulty, an operation which, till lately, was considered scarcely admissible, should now be practised with results at least as favourable as attend many other capital operations." This "source of legitimate satisfaction to English Surgeons," Dr. Lee would deny them; but it was to be hoped that the Society, so far from aiding him, would, on the contrary, influence Professional opinion in favour of an operation which should rank among the greatest benefits conferred by Surgery upon Mankind.

Dr. Savage said that, as Senior Physician of the Samaritan Hospital, he had seen nearly all the cases operated upon, in that Institution, by Mr. Spencer Wells, and, like Dr. Lee, had also got together a list of cases of ovariotomy; but his collection differed from Dr. Lee's in one important point. Dr. Lee never would see the operation done. He (Dr. Savage) had asked him to come and see a case, but Dr. Lee said he would rather not. This reminded him of an anatomist who denied the existence of the curling arteries of the uterus. Many years ago, when Dr. Savage was giving some attention to this point, he one day asked this gentleman to come and see these arteries in a uterine perforation, but he said, "No, he had said there were no such arteries, and he did not want to see them." Dr. Lee stood precisely in this same position. He had expressed strong opinions against ovariotomy, and he did "not want" to see anything which could alter his opinions. So his list of cases of ovariotomy, though large, was perhaps less reliable than his (Dr. Savage's) though only numbering between 50 and 60, because he (Dr. Savage) had taken care to become intimately acquainted with each case before the operation, during the operation, and after the operation. Thus, his personal information being more precise, might, perhaps, be accepted as making up for deficiency in numbers so far as to justify his offering a few remarks on the present question. When Mr. Spencer Wells became his colleague at the Samaritan Hospital, the authorities there, himself included, on the whole, were unfavourable to ovariotomy; but Mr. Wells's success was decisive. Like Dr. Smith, he (Dr. Savage) could not help becoming a convert, but he could not agree in considering the extirpation of a diseased ovary a simple operation; quite the contrary. It seemed to him there was no operation which could present a greater source of embarrassment, or required more presence of mind, readiness in resource, and the other best qualities of the Surgeon. The reasons just advanced by Dr. Smith and Mr. Spencer Wells, in favour of ovariotomy, must be concurred in sooner or later, especially by those who had been in the melancholy situation of witnessing the progress and termination even of ordinary forms of ovarian disease. It had been noticed that the operation had been followed by an inequality of success, in regard to persons and places, which had excited a doubt, not only whether it could ever be brought under definite Surgical rules, but whether individual statements of successful cases could be relied on. From his own observation, he could not help thinking that very much depended, not so much on the skill as on the experience, of the operator. For instance, what course would an inexperienced operator adopt in a case where the tumour, having been freed from the abdominal cavity in the most skilful manner, everything promising its speedy and successful separation, he could not find a pedicle—no place to apply any form of ligature? Would any one, without some experience in such operations, be ready with a suitable expedient for such a complication? Yet he had lately been present when this occurred to Mr. Wells, and the measures resorted to were followed by one of the best recoveries. One of Dr.

Lee's chief objections turned on the presumed insuperable difficulty of making out satisfactorily, in any given case, whether or not the tumour was a pregnant uterus, or whether pregnancy co-existed. This difficulty had not led to any mistake in any of the cases he had seen, nor could he imagine how it need be made. Fluctuation in many compound cysts was avowedly very obscure, and the abdomen, to the sight and touch, often closely resembled its appearance in pregnancy, but the usual modes of investigation were quite sufficient to make out a correct diagnosis in every case. He had come to this meeting of the Society in the anticipation of hearing sundry other points of difficulty connected with ovarian diagnosis discussed; but as what had transpired of Dr. Lee's communication offered no precise fact of any kind whatever, there was nothing to deal with. Dr. Lee had included in his list all the cases of ovariotomy he could get at: well, then, the case he was about to allude to must be one of them, and, therefore, before the Society, and he thought it would be satisfactory to the Profession, if they were informed what were the precise points which led to the difficulty of diagnosis in a case which had occurred in the Institution with which Dr. Lee was connected as Physician Accoucheur. The leading particulars of the case had been published, but he (Dr. Savage) thought Dr. Lee ought to explain, for their future guidance, how and why the difficulty had arisen.

Mr. Pollock said that Dr. Lee had not seen the case referred to by Dr. Savage. It had been fully published soon after the operation.

Dr. Barclay said that, in addressing the Society, members should not speak from mere "hearsay" evidence.

Dr. Lee rose and said, it was true that he had never performed the operation of ovariotomy on the living body, that he had never sanctioned its performance, and that he had never seen it performed by others. In the year 1840 he had been invited by the late Mr. B. Phillips to be present at the St. Marylebone Infirmary to see him operate. He (Dr. Lee) consented to be present, but, being professionally engaged, did not arrive at the Infirmary till the operation had been completed. The patient was 21 years of age, in good general health. An incision of two inches and a half was made through the abdominal parietes; the cyst was seized with the vulsellum; 330 ounces of fluid evacuated; the opening enlarged; the cyst drawn out; the root tied and excised, and the sac removed without difficulty. Severe pain followed, with vomiting. He saw the patient about half an hour afterwards, with rapid, feeble pulse, and cold extremities. He was present at the examination of the body, when the appearances of recent inflammation were observed within the pelvis, with a small quantity of extravasated blood. He had seen the patient a few days before in excellent general health, and if her life had not thus been suddenly and violently destroyed, she might have lived for years. Mr. B. Phillips never again performed the operation of ovariotomy. He (Dr. Lee) was now told that ovariotomy was a simple operation, and the reports published of successful cases would lead to the inference that it was attended with comparatively little danger. No operation, he was convinced, could be performed on the human body so dangerous, except the Cæsarean section. Indeed, the Cæsarean section and ovariotomy resembled one another in several striking respects. In both an incision must be made through the abdominal parietes, the peritoneal cavity laid open, and the bowels exposed. "I am acquainted," says a statistical writer in the thirty-fourth volume of the *Medico-Chirurgical Transactions*, "with 409 authentic cases of the Cæsarean section, 341 of which are collected in Kayser's valuable essay, 'De Eventu Sectionis Cæsareæ.' In 251 of these cases the mother died; in 156 she survived. There can, however, be no doubt but that these figures convey a very exaggerated impression as to the proportion of recoveries, and that the unfavourable estimate of English authors is nearer the truth. Both Kayser and Naëgelé regard the results given by the published cases as *unfair;* and the former mentions the fact, which of itself affords strong evidence on this point, that while the total maternal mortality amongst the cases which he had collected was 63 per cent., the mortality of cases occurring in lying-in Hospitals, in which institutions failures must of necessity be reported as well as successes, amounted to 79 per cent." The results here stated were admitted to be unfair, he would say wholly destitute of truth, and utterly unworthy of credit. Did any one person there present believe that of these 409 cases the mortality was not greater than 63 per cent? It was known that numerous fatal cases of Cæsarean section had occurred on the continent, of which no report had ever been permitted to see the light. This applied forcibly to the statistics of ovariotomy, which he had been told were the sole foundation upon which all their conclusions respecting the propriety of removing ovarian cysts and tumours must rest. If all the fatal cases of ovariotomy had been published there might have been some appearance of force in this; at least, the degree of danger would have been indicated. But this had not been the course followed in this country since the operation came to be performed. It was notorious that numerous fatal cases of ovariotomy had occurred, of which no report had ever been published, and all attempts to remove the veil which concealed them had been fruitless. "You have related, Sir, to the Society (addressing the President) a successful case of ovariotomy performed many years ago by Mr. Walne. Can you inform the Society of the number of cases in which he performed the operation with disastrous results, of which no account was ever published?" When preparing his (Dr. Lee's) analysis of 162 cases which had occurred in Great Britain for this Society, he wrote to Mr. Walne, and requested him, on the grounds of science and humanity, to communicate a full report of all his successful and all his fatal cases. With this request Mr. Walne refused to comply in the most peremptory manner, and no accurate report had ever been published of the results of his practice. It was long since Mr. Walne had been heard of as an ovariotomist; but the reports of success in his early career were quite as flattering as those marvellous results which had been related to the Society that evening. Mr. Walne was not the only ovariotomist to whom he (Dr. Lee) applied for information on the occasion without success. Another, whose fame as a successful ovariotomist had not been surpassed in this country, made a return to him, which was not correct, and which he was compelled to reject as untruthful. Of this ovariotomist little had been heard of late years, and he (Dr. Lee) believed he had abandoned the operation altogether. The postscript to Dr. Lee's paper contained an account of all the cases operated upon by Mr. Lane, Dr. Clay, Mr. Spencer Wells, and others, and the history of some fatal unpublished cases. The Council of the Society had decided that these should not be read. He had requested the last case in his postscript to be read, but that request had not been complied with. It was a case related in a letter to Dr. Noble. The operation was performed in 1855, with the sanction of Mr. Harrison's colleagues, and in the presence of Dr. Noble and several other Medical men and Dr. Clay. "I removed the tumour," says Mr. Harrison, "and the first time I suspected it to be uterine was on cutting through the pedicle." The patient had died in eight hours. He (Dr. Lee) was uncertain if this case was published. Another letter in the postscript contained an account of three fatal cases. One of these had been published as a fortunate case. The histories of many others had been communicated to him, not referred to in the postscript. He had himself seen a considerable number of cases where the operation was performed, contrary to his advice, with rapidly fatal results, of which no reports had been published by which the cases could be recognised. He passed the house of one of those patients that afternoon. There was hope in this case that, with ordinary treatment, this patient might have lived for years. The operation was very lately performed with rapidly fatal results upon a lady he had seen in the country on the sea-coast. By no efforts had he succeeded in bringing to light the details of that case. If the operation was so simple and so successful, why were these cases concealed from the public and the Profession? He (Dr. Lee) saw a case near Brixton some time ago, since the publication of his "Analysis." There was a great mass of ovarian cysts and tumours firmly adhering. He never saw a more unfavourable case for an operation; but a most marvellously successful ovariotomist was called to see the patient, and he pronounced it a favourable case. He said that he (Dr. Lee) was wholly ignorant of the subject. This ovariotomist made an incision from stem to stern, not an exploratory incision, but nothing could be removed after repeated attempts, and the patient was soon in her grave. Dr. Lee wrote to the ordinary Medical attendant some weeks after, inquiring what had become of her. He received no reply of any kind. He wrote a second time without success. Many months after, Dr. Lee accidentally met a clergyman at Clapham, who informed him that the operation had been performed with speedily fatal results, and that he had buried her. It would be useless to multiply such cases; and yet he was told that the statistics of ovariotomy were to form the groundwork of

all decisions respecting ovariotomy, and that they were worthy of trust. An attempt had been made to institute a comparison between the results of ovariotomy and great Surgical operations. A chronic ovarian disease, after lasting four years, and not threatening life, bore no resemblance to a case of strangulated hernia, an aneurism ready to burst, or a shattered limb with hæmorrhage from the large arteries. Ovariotomy could not be compared to any of the great operations of Surgery. In the cases of ovariotomy called unsuccessful, the patients had been suddenly deprived of life by violence without any necessity. But it was not from some occasional cases of recovery from the operation, such as those related that evening, that a correct opinion of ovariotomy could be formed. All the facts must be taken into account, otherwise no sound judgment could be formed of the difficulty of the diagnosis, and the danger of the operation. It appeared, from the analysis of 162 cases, that a successful instance occurred in America, and was published in the *Edinburgh Medical and Surgical Journal* in 1822. He had thought that this was the first case; but it was now stated that the operation had been performed by Dr. M'Dougal before. This was a matter of no importance. It could not be denied that the publication of a successful case took place in 1822; and he had supposed Mr. Lizars, in consequence of this case, had recourse to operation. In Mr. Lizars' first case there was no ovarian disease to be removed. In the second, the disease was removed, but the other ovary was diseased, and could not be removed. This patient was afterwards seen by some Surgeons in London. He believed Mr. Lawrence saw her, with a great cicatrix of the abdomen, and a large mass of disease within. The third patient operated upon by Mr. Lizars died. In the fourth case there was no ovarian disease to be removed. About 1829, a case similar to this was seen in Guy's Hospital by Dr. Gooch. In 1826, Dr. Granville made an incision of nine inches long through the abdominal parietes, and a large ovarian tumour was brought into view, which had such extensive adhesions that it could not be removed. In 1829, Dr. Granville operated again, and removed a tumour weighing 9 lbs., which was supposed to be ovarian, but it was a large fibrous tumour of the uterus. Dr. Lee examined this tumour in the recent state, and ascertained that it had adhered to the fundus uteri by a thick peduncle, around which a ligature had been applied, and the root cut across. A portion of small intestine which had come in contact with the incised root became inflamed and gangrenous, and the patient soon perished miserably. The preparation of the parts was long in the possession of Mr. North. Dr. Granville was about to operate upon another patient, but Mr. C. Clarke recommended the patient not to submit to the operation, and she lived some years after, and died a natural death at Barnes. Dr. Scott examined the body, and presented the tumour to Dr. Lee, which was the uterus, with a fibrous tumour embedded in its walls of the size of three human heads; it was in Dr. Lee's collection at St. George's Hospital. Dr. Granville had far greater experience in the practice of midwifery than any who had that evening spoken. In 1835, Mr. Jeaffreson performed the operation, and the patient recovered. From that time to the present the operation had occasionally been performed with success, but as often, he (Dr. Lee) believed, with fatal results, if the whole truth were revealed. About the same time Mr. King attempted to perform the operation, but the ovarian disease could not be removed, and the patient died. In 1834 he repeated the operation with success, and again in 1836. Then followed three successful cases and one fatal. Then followed six fatal cases running, in which the operation was performed by Messrs. Hargraves, B. Phillips, Aston Key, B. Cooper, and Mr. Greenhow. In looking over one column of his "Analysis," he (Dr. Lee) could see "Died—died—died—died—died—died" in a few days—he might say killed. All these operations were performed by distinguished Surgeons, and none of them repeated the operation. In fact, the operation required undoubtedly great hardihood. So far, it was an operation such as had been described. He would refer those who wished to know all the facts to the remainder of the "Analysis," by which it appeared, that of 162 authentic cases in which the operation had been undertaken, in 60 the ovarian disease could not be removed, 19 of which proved fatal; of the remaining 102 cases in which the operation was completed, 42 terminated fatally. From these facts, he concluded that ovariotomy and the Cæsarean section were the two most dangerous operations which could be performed on the human body. The postscript to his (Dr. Lee's) paper, which the Council had refused to read, contained reports of all the cases, successful and fatal, which had come under the care of Mr. Spencer Wells, and he believed that that gentleman had concealed no fatal case. One of the successful cases he (Dr. Lee) had seen in Burton ward, St. George's Hospital, and he thought the case as favourable for the operation as any he had ever seen. He summoned a consultation of the Surgeons; but they declined to operate unless he sanctioned the operation, which he could not do, knowing that, until the abdomen was laid open, it was impossible to tell whether the cyst could be removed or not, and knowing also that the patient's life would, under the most favourable circumstances, be exposed to the utmost danger. She went to the Samaritan Hospital, and was operated upon by Mr. Spencer Wells with success; but she had a narrow escape with her life, and she told him (Dr. Lee) that she considered herself on the brink of the grave during several days. But the perusal of the successful cases of Mr. Spencer Wells had no doubt led to most fatal results. In reading some of these cases, a lady in Ireland, who had ovarian disease, resolved to have it extirpated, being convinced that ovariotomy was not attended with much danger. A pecuniary negotiation took place between her and Mr. Wells, but it came to nothing; and another ovariotomist went to Ireland, and performed the operation. He (Dr. Lee) had been informed that he represented the case as not unfavourable, and that his fee was to be 300 guineas, and 100 guineas every day he remained with the patient after the operation. Bargains of this description he (Dr. Lee) had been informed were not uncommon. The operation was easily performed, and the operator ran round the table, kicking up his heels in triumph; but these feelings of delight were of short duration, for the patient soon began to sink, and died in eighteen hours. Had Mr. Spencer Wells ever read any report of this case? It was impossible to deny that the question now under discussion was a money question, and not one of science and humanity. Mr. Spencer Wells had reduced all his cases under three heads. One of these comprehended all the cases in which what had been called exploratory incisions had been made, and these were spoken of as if they were things of no very serious importance, though they had sometimes caused death. "You would not, I am convinced," concluded Dr. Lee, "view them in this light if incisions were made through your abdominal parietes, and the fingers of an ovariotomist introduced amongst your bowels to hunt for adhesions. Mr. Liston had a great horror of such exploratory incisions and of all ovariotomists. He called them 'belly rippers,' with a B before and a B after. The meaning of these two B's I must not state plainly to the Society."

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, OCTOBER 24.

Dr. BARCLAY in the Chair.

AFTER the usual business of the meeting, Dr. BARCLAY gave his

INTRODUCTORY ADDRESS.

After a few remarks, in which he thanked the Society for electing him as President, he said he could not allow the occasion to pass without reference to one who once honoured this Society by presiding over it, whose brilliant and successful career has this very week terminated. Sir Benjamin Brodie combined rare talents for practical observation and scientific research with such an unusual degree of sound judgment and personal tact, that, while his opinion was regarded professionally the first on all points, he at the same time gained the confidence of a capricious public. Dr. Barclay reminded the Society that it was local and limited, and that, to be truly useful, such, also, should be its aims; and he argued that the more practical the meetings were made, the more profitable they would be to the members. He alluded to the World's Fair then going on, and to that of 1851. Passing then to the great meeting of the British Medical Association, he showed how the jealousies of old were dying out from among Professional men, and a better feeling prevailing, based on the golden rule, "Thou shalt love thy neighbour as thyself." He specially directed the attention of the meeting to the recent discussions on the action of medicines. With regard to treatment, disease might be considered in a threefold sense:—

1. That which is of necessity fatal, and incurable; 2. That which is not necessarily fatal; 3. That which is never so. The evidence as to the value of a medicine differs in the three cases. In the first class, a remedy is soon tested by the progress of the disease and death of the patient. Regarding the second, he pointed out the difficulties which interfere with the application of the numerical method; diseases of this class—fever, for example—varying so greatly, that no average can be drawn, because it is impossible to arrange together cases which are exactly identical; and many patients recover under any treatment, whilst others will equally die, in spite of the most judicious selection of remedies. The aim of the Practitioner should be to learn what medicines act undoubtedly in such and such diseases, and to ascertain what organs are influenced by them. He will then better understand how and when to administer them. The third class of cases offer good opportunities for elucidating the actions of medicines upon various organs of the body, independently of their influence on the duration of life. "One action of a remedy," he concluded, "discovered or applied to the successful treatment of disease, with an understanding of how the result is obtained, is worth more, in a scientific point of view, than all the lucky hits which a man may make in a whole lifetime of successful practice."

LEGAL INTELLIGENCE.

BOW COUNTY COURT.—November 14.

LYELL *v.* MITCHELL.

The plaintiff, a Surgeon, residing at Grove-road, Bow, claimed 15s. for Medical attendance, including 10s. 6d. for a midwifery fee. Defendant's wife denied ever having seen plaintiff, and swore that she engaged a Mr. Barringer, a chemist, residing at Bow, and also a midwife, to attend her, and that she had paid both these persons. Plaintiff stated that Barringer was his assistant.

His Honour: Your paid assistant?

Plaintiff: Well, not exactly that.

His Honour: Then what is he?

Plaintiff: He keeps a chemist's shop, and when he gets a case he does not understand, he sends for me; and, in such event, I charge the patient, and pay Barringer for his drugs.

His Honour: But how can you, in such case, assert that Barringer is your assistant? On the contrary, you appear to be his assistant. In the present instance, upon what ground do you justify your demand?

Plaintiff: Defendant's wife was in labour, and Barringer, not feeling able to deliver her without advice, sent for me. I attended the woman, and completed the case, and afterwards prescribed for her.

His Honour: You evidently appear to have been employed by Barringer, and he should pay you. Upon the defendant you have no claim whatever. Indeed, I am exceedingly surprised that a Medical man should act so unprofessionally as you have confessed having done.

MEDICAL NEWS.

University of St. Andrews.—List of gentlemen on whom the Degree of Doctor of Medicine was conferred in November, 1862:—

Peter D. Anthonisz, F.R.C.S. Ed. and M.R.C.S., Ceylon; Edward Bishop, L.R.C.P. Ed., and M.R.C.S., Leeds; Luke Blumer, L.R.C.P. and L.R.C.S. Ed., Sunderland; Thomas B. Bott, L.A.C., Manchester; Walter Chippindale, M.R.C.S. and L.A.C., Tonbridge, Kent; William B. C. Christy, M.R.C.S. and L.A.C., R.N.; Samuel Cookson, M.R.C.S. and L.A.C., London; Astley A. C. Cooper, M.R.C.S., Southampton; Thomas B. Crosby, F.R.C.S. by Ex. and L.A.C., London; Thomas H. Curtis, M.R.C.S., Alton, Hampshire; John F. Deck, M.R.C.S. and L.R.C.P.L., Nelson, New Zealand; Stephen Duke, M.R.C.S. and L.A.C., Chichester, Sussex; William Ewart, L.R.C.S. Ed., Middleton, Barnard Castle; William S. Falls, L.K.Q.C.P. and M.R.C.S., Bournemouth; Henry Fegan, M.R.C.S., R.N.; Francis M. Foster, M.R.C.S. and L.A.C., Kingston-upon-Hull; Robert G. Freeman, M.R.C.S., Greenwich; Gideon G. Gardiner, M.R.C.S., Clapton, London; George F. Giles, M.R.C.S. and L.A.C., Hackney; Samuel J. Graydon, L.R.C.S.I., Lisnaskea, Ireland; Samuel Hill, L.R.C.S., L.R.C.P. Ed., and L.A.C., London; Henry Horsfall, M.R.C.S. and L.A.C., Masham, Yorkshire; Horace S. Howell, L.R.C.P. Lond., Great Dunmow, Essex; John Inee, F.R.C.S. and L.A.C., London; Richard P. Irwin, M.R.C.S., London; George A. Miskin, L.A.C., London; Samuel C. Nelson, M.R.C.S., Douglas, Isle of Man; John F. Nicholls, M.R.C.S., Surgeon, Royal Wiltshire Militia, Devizes; Theophilus R. B. Parker, M.R.C.S. and L.A.C., Abbotsbury, Dorsetshire; William Pocock, M.R.C.S. and L.A.C., Brixton; Josiah T. Powell, L.R.C.P., M.R.C.S., and L.A.C., London; Richard Purnell, M.R.C.S., Wells, Somersetshire; John Richardson, M.R.C.S. and L.A.C., Islington; James Rodger, Lic. Fac. Phy. and Surg. Glasgow, Bellingham; William Scott, M.R.C.S. and L.A.C., Greenwich; Thomas Sharpley, M.R.C.S. and L.A.C., Louth, Lincolnshire; Horace Sillifant, M.R.C.S. and L.A.C., London; Richard Stokoe, F.R.C.S. and M.R.C.S., Peckham-rye; Moses Thomas, Lic. Fac. Phy. and Surg. Glasgow, Glasgow; John W. Tyler, L.A.C., Calcutta; Joseph Walker, M.R.C.S., London; Charles A. Waterworth, M.R.C.S. and L.A.C., Newport, Isle of Wight; John Watson, M.R.C.S. and L.A.C., London; John T. Welsh, L.R.C.S. Ed., Edinburgh; John Whitehead, L.A.C., Preston, Lancashire; John Williams, M.R.C.S. and L.A.C., Pontypool, Monmouth; William Jay Williams, F. Fac. Phy. and Surg. Glasg., and M.R.C.S., Manchester; David C. Wray, M.R.C.S., March Combe, England; James Yearsley, L.R.C.P.E. and M.R.C.S., London.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 18th inst., viz:—

Edward Richard Slingsby, Hull; Richard William Davies, Colnbrook, Bucks; Moriz Schapira, M.D., Vienna; Frederick Carter, L.R.C.P. Lond., Billericay, Essex; John Baird, Strabane, County Tyrone; Thomas Moore, Stockport; John Alexander Hedges, L.S.A., Bedford; Frederick Royston Fairbank, Rugby; Edward Charles Anderson, Birmingham; Thomas Baker, Birmingham; Joseph Benson Corlett, M.D. Edin., Jamaica; John Latham, Rushton, Rainow, near Macclesfield; William Cribb, L.S.A., Kentish-town; Charles Montague Simpson, Barnsbury; Charles Fincham Harding, Woolwich; Robert Lloyd Jordison, South Ockenden, Essex; Arthur Calcutta White, L.S.A., Rawreath, Essex; James Hunter Armstrong, Gravesend; Arthur John Watts, Bayswater; William Norris Marshall, Wingham, Kent; Arthur Trehern Norton, L.S.A., Westbourne-grove West; Wykeham Hawthorne Lydall, Westbourne-park-road; John Sutherland Howell Probyn, Newbury, Berkshire; and Allen Græme Cheek Mann, Grenada, West Indies.

At the same meeting of the Court, Mr. Martin Magill, of H.M.S. *Russell*, Falmouth, passed his Examination for Naval Surgeon. This gentleman had previously been admitted a Member of the College, his Diploma bearing date June 6, 1856.

The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners, on the 19th inst.:—

Francis Young, M.A. Trin. Coll. Dub., Kentish-town; Robert Edward Gibson, Plymouth; John Wright Craig, M.D. Glasg., Ayr; George Henry Eccles, Plymouth; William Robert Roberts, Birmingham; Thomas Robert White, M.D., Queen's Univ. Ireland, Bailieboro', Co. Cavan; Robert Farmer Gibson, Cardiff, S. Wales; Lynch Thomas, M.D. Edin.; Cornelius Harrison Ward, Tolleston, near Nottingham; Frederick Augustus Palmer Hains, M.D. Edin., Totness, Devon; John Williams, M.D. Edin., Brecon; George White, Thatcham; William Henry Dixon, M.D. Edin., Sunderland; William Henry Axford, Bridgewater; Ellis Frederick Thorold, M.D. Edin., Edinburgh; Henry Willey, St. John's-wood; Sidney Hyde, Langfrost, Somerset; Thomas Griffiths, Carmarthen; William Hanks, Snaith, Yorkshire.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 13, 1862:—

Owen Grimbly, St. Thomas's Hospital; Charles Richards, St. Mary's Hospital; William Watmough, 16, Portugal-street, W.C.; John Henry Bridgman, Bridport, Devon; William Forsyth, Edinburgh; James Stafford Webb, South-street, Kennington-road; James Wilson, Soho-park, near Birmingham; Lewis James May, West Putford, Devon; William Lugar Mumford, Cornara Parva, Suffolk.

The following gentleman also on the same day passed his First Examination:—

Thomas Miles, Guy's Hospital.

APPOINTMENTS.

Andrews.—John Andrews, M.D., Surgeon R.N., January 26, 1855, has been appointed to the *Meeanee*.

Beale.—George Bewsher Beale, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N., November 17, 1858, has been appointed to the *Meeanee*.

Bloomenthal.—Theodore Bloomenthal, M.D., M.R.C.S. Eng., L.S.A. Lond., late Resident Medical Officer to the Samaritan Free Hospital, Portman-square, has been elected Resident Medical Officer to the Queen Adelaide Dispensary, Bethnal-green-road.

Brett.—Alfred Thomas Brett, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the Union House and Infirmary of the Watford Union, Herts, *vice* Thomas Abel Ward, M.R.C.S. Eng., L.S.A. Lond.

Burn.—G. A. Burn, Assistant-Surgeon Indian Service (on leave in Europe), has been appointed to the Medical charge of the 4th Cavalry, Hyderabad Contingent, *vice* Surgeon-Major J. H. Orr, C.B. and M.D., resigned.

Cahill.—Dr. Cahill, sen., has been elected Sheriff of Berwick-upon-Tweed.

Cree.—Edward Hodges Cree, M.D. Univ. Edin., M.R.C.S. Eng., L.S.A. Lond., Surgeon R.N., April 4, 1843, has been appointed to the *Saturn* for Pembroke Dockyard.

CROCKER.—H. Crocker, Assistant-Surgeon Indian Service, has been appointed to the Medical charge of the 4th Infantry Hyderabad Contingent, *vice* Assistant-Surgeon Williamson.

CROMARTY.—Dr. J. Pattison Cromarty, Indian Service, has been appointed Civil Surgeon of Tavoy.

DALE.—J. A. Dale, M.A., has been approved as one of the Examiners in the first Examination for the Degree of M.B. University of Oxford.

DAUBENY.—Charles G. B. Daubeny, M.D. Oxon., F.R.S., has been approved as one of the Examiners in the first Examination for the Degree of M.B. University of Oxford.

ELLIS.—Dr. Ellis, of the steamer *Nemesis*, Indian Navy, has been appointed to officiate as Civil Surgeon of Tavoy, from the date on which Assistant-Surgeon Hooke quitted the Station.

FARNCOMBE.—Mr. T. B. Farncombe, Indian Service, has been appointed Civil Surgeon of Purneah.

GRIEVE.—November 9, James Grieve, of Dumfries, M.D. Univ. Edin. L.R.C.S. Edin., Physician to the Dumfries and Galloway Royal Infirmary,

HARGOOD.—Frederick Hezekiah Hargood, M.R.C.S. Eng., and L.M., L.S.A. Lond., late Assistant Medical Officer to the Middlesex County Lunatic Asylum, Colney Hatch, has been appointed Assistant Medical Officer to the Lancaster County Lunatic Asylum, Rainhill, *vice* Henry William Jackson, M.R.C.S. Eng., L.S.A. Lond., appointed to the Surrey County Lunatic Asylum, Wandsworth.

HENRY.—Barclay Henry, M.D. Univ. Glasg., has been appointed Medical Officer of the Parishes of Luss and Arrochar, Dumbartonshire.

HOMAN.—S. Adamson Homan, M.R.C.S. Eng., Surgeon Indian Service, having completed twenty years' actual service, to be Surgeon-Major from July 7.

HURLSTONE.—Michael Oscar Hurlstone, M.R.C.S. Eng., Assistant-Surgeon R.N., has been confirmed in the *Cockatrice*.

LITTLER.—J. H. Littler, M.D., Surgeon Indian Service, having completed twenty years' actual Service, to be Surgeon-Major from August 2.

LYALL.—David Lyall, M.D. Univ. King's Coll. Aberd., L.R.C.S. Edin., Staff Surgeon R.N., July 4, 1846, of Pembroke Dockyard, has been elected a Fellow of the Linnean Society.

MACFARLANE.—Surgeon-Major D. Macfarlane, Indian Service, has been appointed to act as Garrison Surgeon, Trichinopoly, *vice* Surgeon-Major J. Dorward, promoted to Acting Deputy-Inspector-General.

MARTIN.—Mr. J. Hamilton Martin, of University College Hospital, has been appointed Apothecary to the Male Lock Hospital, Dean-street, Soho, *vice* Mr. C. F. Bullmore, resigned.

ORTON.—Charles Orton, M.R.C.S. Eng., L.S.A. Lond, has been appointed House-Surgeon to the North Staffordshire Infirmary, Etruria, Stoke-upon-Trent, *vice* Charles Parsons, M.R.C.S. Eng., L.S.A. Lond., resigned.

PACKMAN.—Frank James Wilson Packman, M.D. Univ. St. And., M.R.C.S. Edin., and L.M., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for District No. 1 of the Wimborne and Cranborne Union, Dorsetshire, *vice* Charles Brown Parkinson, M.R.C.S. Eng., L.S.A. Lond., resigned.

RAINY.—Professor H. Rainy, M.D., has been elected Honorary President of the University Medical Society, Glasgow.

REED.—J. G. Reed, Assistant-Surgeon Indian Service, has been appointed to the temporary Medical charge of the 4th Cavalry Hyderabad Contingent, during the absence in Europe of Assistant-Surgeon Burn.

ROBERTSON.—Adam Robertson, Acting Assistant-Surgeon R.N., has been appointed to the *Meeanee*.

ROLLESTON.—George Rolleston, M.D. Oxon, F.R.C.P. Lond., Fellow of Pembroke College, has been appointed Public Examiner In Scientia Naturali, University of Oxford; he has also been approved as one of the Examiners in the first Examination for the Degree of M.B.

ROWLEY.—Thomas Rowley, M.D. Univ. Edin., M.R.C.S. Eng., has been re-elected Alderman of the Borough of Lichfield.

RYALL.—William Frederick Ryall, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N., October 8, 1861, has been confirmed in the *Orlando*.

SKEENE.—James Alexander Skeene, M.R.C.S. Eng., Assistant-Surgeon R.N., June 6, 1856, has been appointed to the *Cumberland* (additional).

SMITH.—Charles Swabey Smith, M.R.C.S. Eng., L.S.A. Lond., has been appointed local Surgeon, for Burbage, of the Great Western Railway Provident Society.

SMITH.—Dr. Wm. Abbotts Smith has been appointed Honorary Medical Officer to the Church of England Scripture Readers' Association, Spring-gardens, S.W.

SNAITH.—Frederick Snaith, M.D. Univ. Edin., B.A. Trin. Coll. Dub., L.R.C.S. Edin., L.S.A. Lond., has been elected Town Councillor of Boston, Lincolnshire.

TURNOUR.—Arthur Edward Turnour, M.D. Univ. Edin., M.R.C.S. Eng., has been elected Mayor of Denbigh.

WILLIAMSON.—Assistant-Surgeon B. Williamson, Indian Service, has been appointed to temporary Medical charge of the 2nd Cavalry Hyderabad Contingent, *vice* Assistant-Surgeon Burn.

DEATHS.

ANDERSON.—November 12, at Brora, Sutherlandshire, John Anderson, L.R.C.S.E. and L.R.C.P.E., aged 25.

BARTLETT.—Recently, Thomas Bartlett, of No. 7, King's-road, Bedford-row, M.D. Erlangen, M.R.C.S. Eng., L.S.A. Lond.

BLAIR.—November 8, Alexander Blair, of Dailly, Maybole, Ayrshire, L.R.C.S. Edin., for many years Medical Officer of the Parish of Dailly, and Collector of Poor-rates.

HEDENUS.—November 6, at Dresden, A. Hedenus, M.D.

LANDER.—September 11, at Christianburg, Western Africa, from injuries received from the shock of an earthquake, James Boyle Lander, M.D., Staff Assistant-Surgeon.

POLAND.—November 14, James Wood Poland, of Blackheath, Kent, M.R.C.S. Eng., aged 38.

RIX.—November 15, William Beloe Rix, of Matching, near Harlow, Essex, M.R.C.S. Eng., L.S.A. Lond., aged 67.

VERITY.—October 16, at Hemmingford, Lower Canada, Frederick Steele Verity, M.D., aged 49.

YORATH.—November 13, Lewis Williams Yorath, of Newport, Monmouthshire, M.R.C.S. Eng., aged 29.

LONDON GAZETTE.

November 14.

WHITEHALL, November 13, 1862.—The Queen has been pleased to give and grant unto Staff Assistant-Surgeon James Joseph McCarthy, M.D., her Majesty's Royal license and permission that he may accept and wear the Insignia of the Imperial Order of the Legion of Honour, of the Fifth Class, which his Majesty the Emperor of the French has been pleased to confer upon him, as a mark of his Imperial Majesty's approbation of his services, while under fire, to the French soldiers wounded during the recent operations in China, and especially to the late Admiral Protet, at the moment when he was mortally wounded.

DOWNING-STREET, November 12, 1862.—Her Majesty has been pleased to appoint Joseph Henry Boon, M.D., to be one of the Members of the Executive Council of the Island of Saint Christopher.

1ST WEST RIDING OF YORKSHIRE RIFLE VOLUNTEERS.—William Dalla Husband to be Surgeon, *vice* Moore, deceased, dated October 21, 1862.

38TH WEST RIDING OF YORKSHIRE RIFLE VOLUNTEERS.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon Thomas Wood Burkitt.

November 18.

14TH KENT RIFLE VOLUNTEER CORPS.—Henry Bishop, Gent., to be Honorary Assistant-Surgeon, dated November 9, 1862.

1ST BRECKNOCKSHIRE RIFLE VOLUNTEER CORPS.—John Williams, Gent., to be Honorary Assistant-Surgeon, dated November 13, 1862.

5TH SURREY RIFLE VOLUNTEER CORPS.—The Queen has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon Sissou, in the above Corps.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a special meeting of the College, held on Saturday, the 15th inst., John Erichsen, Esq., Fellow of the Royal College of Surgeons of England, and Professor of Surgery, and Surgeon to University College Hospital, was elected an Examiner on Surgery of candidates for the College license.

S. HOLDSWORTH, Esq., M.D., has been elected Mayor of Wakefield for the ensuing year.

WE hear that Professor Garrod has accepted the Chair of Materia Medica at King's College.

MR. KENDALL, F.R.C.S.E., Senior Surgeon to the West Norfolk and Lynn Hospital, has presented a large and valuable collection of books to that Institution for the formation of a library for the use of the Medical men in the district.

HUNTERIAN MUSEUM.—The Council of the Royal College of Surgeons of England have determined to appoint an Assistant in their Museum, at a salary, we believe, of £200 per annum, and have invited gentlemen, desirous of the situation, to send in their applications on or before December 6th next.

THE VACANT OPHTHALMIC SURGEONCY AT ST. MARY'S.—This appointment, it is said, will be warmly contested. One of the candidates is Mr. Robert Taylor, a gentleman of the highest private character, who has long devoted himself to the diseases of the eye, and has contributed several very important papers on the "Morbid Anatomy of the Eye" to the Pathological *Transactions*, and has written on the "Ophthalmoscope." The other is Mr. Ernest Hart, who has attained considerable credit for his ingenious methods of treating aneurism. We can but wish that such elections were settled by a small committee, and that the candidates were saved the expense and annoyance of canvassing.

NERVOUS SYSTEM OF THE CHAMELEON.—"Whilst the faculty of this creature to assume all the colours of the rainbow has attracted the wonder of all ages, sufficient attention has hardly been given to the imperfect sympathy which subsists between the two lobes of its brain, and the two sets of nerves that permeate the opposite sides of its frame. Hence, not only has each of the eyes an action quite independent of the other, but one side of its body appears to be sometimes asleep, whilst the other is vigilant and active; one will assume a green tinge, whilst the opposite one is red; and it is said that the chameleon is utterly unable to swim, from the incapacity of the muscles of the two sides to act in concert."—*Sir J. Emerson Tennent.*

THE "GORILLA" IN ENGLAND.—The statement made in some of the daily papers last week, the more probable portions of which we inserted in the *Medical Times and Gazette*, that a young male gorilla had been obtained from Africa, and was in the hands of a respectable dealer in Liverpool, appears to be based upon a misapprehension of the

specific nature of the animal in question. On publication of the statement, Mr. A. D. Bartlett, the Superintendent of the Zoological Society's Gardens, at once proceeded to Liverpool, where his critical skill speedily arrived at the discovery that the so-called gorilla was merely a young chimpanzee, the purchase of which by the Zoological Society is now under consideration. It would be a valuable addition to the public menagerie to acquire even this specimen, as some few years have elapsed since the Zoological Gardens possessed a specimen of chimpanzee.

APOTHECARIES' HALL.—The Annual Dinner of the Society of Apothecaries took place in the Hall on the 14th inst. In the absence of the Master, Mr. Wheeler, Mr. Griffiths presided, as Deputy-Master. Amongst the guests were Dr. Watson, the President of the College of Physicians, Mr. Luke, the President of the College of Surgeons, the Censors of the College of Physicians, Mr. Glaisher, F.R.S., of the Royal Observatory, Mr. Campbell De Morgan, Mr. Nunn, Dr. Barnes, etc. On Mr. Glaisher's health being proposed by Professor Brande, F.R.S., the former gave a most graphic description of his late perilous balloon ascent. Many were the just tributes paid by various speakers to the tried merit of the Society of Apothecaries as an examining body. In fact, if the number of students presenting themselves for examination be a criterion, it appears that the Hall was never in higher estimation than at present. The toast of the Court of Examiners was responded to by their Chairman, Dr. Ansell. The health of the veteran chemist, Professor Brande, was proposed by the Senior Warden, and, it is needless to add, was most warmly received.

A PORTRAIT of the late William Cumming, of Limehouse, has just been presented to the Royal London Ophthalmic Hospital. William Cumming, who was a close and accurate observer, discovered that the deep parts of the eye could be explored by throwing in a ray of light. This prepared the way for a new era in eye Surgery. A new and delightful field of observation and interest was opened up. A part of the living mechanism, till then supposed to lie as in a dark cavern, was revealed to the gaze. This discovery has led to rapid advances in the treatment of affections of the eye. Mr. Cumming died in 1855, at the early age of 33. He was possessed of intense love for science, and of the healing art, and of undying philanthropy. He was an excellent, sagacious, and skilful Surgeon, and a most interesting scientific lecturer, his eloquence being of a very attractive and winning description. As in the history of all discoveries, so in this:—skilful appliances are every day being adopted and improved to explore this new region, but the original demonstration, that the fundus of the living eye could be explored, is due to the genius of William Cumming.—*From a Correspondent.*

THE FEMALE STUDENT QUESTION.—The Senatus Academicus of the University of St. Andrews, having taken legal opinion on the case of Miss Garrett, have passed the following resolutions:—"1. That the Senatus Academicus, acting under the clearly expressed opinion of their able council, hold the alleged matriculation of Miss Garrett to be null and of no effect. 2. Seeing that it is incompetent to any Professor to issue a ticket conferring academical privileges to a student not legally matriculated, the Senatus resolve that the tickets of the Anatomy and Chemistry classes, issued to Miss Garrett, are void and of no effect, and that the fees be returned." Miss Garrett, on her part, laid a memorial narrating the facts before the Lord Advocate, whose opinion is as follows:—"Edinburgh, November 15, 1862.—If the only question involved in the memorial had related to the power of the Senatus Academicus to permit the attendance of female students on the lectures in the University on payment of the matriculation and class fees, I should have hesitated to say that such a course was not within the power of the Senatus Academicus, had they thought fit to consent to it. The attendance of females on University lectures is by no means without precedent; and I find nothing in the charters or foundations of the University of St. Andrews which can be construed to deprive the Senatus of the power to sanction such arrangements under such conditions and regulations as they might think reasonable. But the admission of female students with a view, and with the right, of graduation, and the other privileges of the students in the University, is an innovation which the Senatus Academicus, in my opinion, have no power to permit. I do not think that in the present case the memorialist can maintain her right on the ground of special contract. The Senatus Academicus never officially gave consent to her admission; and it was not within the power of any individual Professor to innovate on the established practice of the University without the authority of the governing body."

ETHNOLOGICAL SOCIETY.—At the meeting of this Society, held on Tuesday last, John Crawfurd, Esq., F.R.S., President, in the chair, a paper was read by Major R. F. Burton, H.M. Consul at the Bight of Biafra, on a recent visit made by him to the Fâⁿ country, in Central Africa. After a fruitless search after the gorilla, he returned to the Gaboon, and on April 10, 1862, he set out in the *Eliza* schooner to explore the waters of the Mpongwe or Gabon, the Nkome, and the Mbokive, traversing the Bâkele and Fâⁿ country. On arriving in this latter district, expecting to see a large-limbed, black-skinned, ferocious-looking race, he was astonished to witness a finely-made, light coloured people, of decidedly mild aspect. The features also were sub-African; many, if whitened, might pass for Europeans; few were so negroïd in type as the Mpongwe, none so negro as the blacks of Guinea or Kongo. After describing minutely the dress of the Fâⁿs, Major Burton proceeded to call attention to a fundamental error in African ethnology made by Dr. Livingstone, who, deriving all his knowledge from the southern corner of the vast Continent, asserts that "no African tribe ever became extinct." The contrary is emphatically the case. Nowhere does the selection of species, so to speak, fight more strongly the battle of life than in maritime Africa. The tenants of the coast are rarely ancient people. Demoralised by the contact of European and Asiatic civilisation, and having, like the Turks, less inducement to bar the coast to their inner neighbours than the latter have to secure free transit for their merchandise to the highway of commerce, they degenerate and gradually die out. This is the case with the Mpongwe and the old Calabarese. The following interesting facts were recounted by Major Burton respecting the cannibalism of the Fâⁿs:—The Fâⁿs, like most African tribes, with whom fighting is like our fox-hunting, live in a chronic state of ten days' war. Such is the case even where the slave-trade has never been known. Battles, however, are not bloody. After the fall of two or three warriors, they are dragged off to be devoured, and their friends disperse. If the whole body cannot be removed, the victors content themselves with a "gigot" or two to make soup. The cannibalism of the Fâⁿs is by no means remarkable, limited as it is to the consumption of slain enemies. The practice sporadically extends from the Nun to the Kongo, and how much further south he cannot at present say. In the Niger and the Brass the people do not conceal it. In Bonny, Major Burton had seen all but the act of eating. The Duellas of Cameroons number it amongst their "country fashions;" and though the Mpongwe eschew the chimpanzee, the Fâⁿs invariably eat their foes. Still no trace of the practice has been seen at Mayyâⁿ. This, however, is not caused by its civilisation: the Rev. W. Walker and other excellent authorities agree that it is a rare incident, even in the wildest parts, but by want of opportunity. The corpse, when brought in, is carried to a hut in the outskirts, and is secretly eaten by the men only, the cooking-pots being finally broken. No joint of man is ever seen in the settlements. The sick are not devoured; the dead are decently interred, except slaves, who, as usual, are thrown out into the forest. The chiefs, stretched at full length, and wrapped in a mat, are secretly buried, the object being to prevent some strong fetish or medicine being made, by enemies, from the various parts of the body; and in some tribes those of the same family are interred near one another. The commonalty are put secretly under ground. During his peregrinations he never saw even a skull. Mr. Tippet, who had lived three years with this people, only knew three cases of anthropophagy. Yet the Fâⁿ character has its ferocious side. Prisoners are tortured with horrible ferocity, and children may be seen licking the blood from the ground. It is a curious ethnological consideration, this peculiar "development of destructiveness" in the African's brain. Cruelty seems to be with him a necessary of life. All his highest enjoyments are connected with causing pain and inflicting death. His religious rites (how different from the Hindûs) are ever causelessly bloody. As an instance, take the old Calabarese. For 200 years they have had intercourse with Europeans, who certainly would not encourage these profitless horrors, yet no savages could show such an extent of ferocity as the 6000 wretched remnants of the race. He could not believe this abnormal

cruelty to be the mere results of uncivilisation. It appeared to him rather the work of an arrest of development, which leaves to the man all the bloodthirstiness of the carnivore. Few of the Fâns lack fish, fowl, or flesh,—goats, mutton, or game, once a-day; many eat it twice. Cattle is, as yet, unknown; the woods, however, supply the wild buffalo in numbers. The dress, manners, and customs of the Fâns closely accord with the accounts which have been already given by M. Du Chaillu, and by the old voyagers to Gaboon in the last century. An interesting discussion supervened, which was commenced by Mr. Francis Galton, F.R.S., who said that the present condition of the African race precluded any hopes of their ultimate civilization, unless some dominant race should arise, which, like the Moors in Northern Africa, might subjugate the scattered tribes, and reduce them to one uniform civilization. Sir Charles Nicholson, speaking of the cannibals of the Tonga Islands, agreed that the prospect of their improvement was hopeless, and that the highest samples he had seen of the race were scarcely mentally equal to European children. Dr. Hunt pointed out that, while a few discrepancies existed between Major Burton's account of the Fâns and that given by Du Chaillu, the general tendency of his observations was to corroborate that traveller's account. Mr. C. C. Blake said that, although slavery had been alleged to be the corrupter of the morals of the African races, cannibalism often existed independently of slavery; while in those tribes on the coast which had had civilised intercourse with Europeans, cannibalism had been abolished. Professor Tagore contrasted the bloodthirsty rites of the Africans with the mild religions of Asia. Dr. Hodgkin condemned slavery and the slave trade; and gave an instance of an Australian native who had been educated in England, and who had reached a pitch of moral perfection rarely attained by Europeans. Mr. L. Burke criticised Dr. Hodgkin's remarks at some length, and maintained the doctrine of the primæval inferiority of the African races. Mr. Crawfurd (the President) pointed out that civilization had never been spontaneously developed in Africa; that human sacrifices, like those of Dahomey, had existed in it from time immemorial; that the negroes had been unable to tame the elephant of Africa, or to devise any form of permanent architecture; and in reply to Dr. Hodgkin, who had quoted the Mosaic law in contravention of slavery, indicated that the regulations as to the punishment of slaves by death in the Pentateuch were more severe on the slave than many of the codes now in force in the most barbarous slave countries. The meeting adjourned till the first Tuesday in December.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. J. F.—No.

Mr. J. Thorpe.—Our present arrangements do not permit the insertion of births.

Mr. Henry Long, late of the Prescription Department, Apothecaries' Hall, has invented a most portentous-looking label for bottles containing poison. The device is a skull and cross-bones, with the word "Poison" in white letters on a black coffin.

Dr. Alexander Henry has written us a letter rebutting the charge of plagiarism made against him in the preface to the second edition of Dr. Mayne's "Medical Vocabulary." As he has already appealed to the judgment of the Profession in the columns of a contemporary, we do not insert his letter. It is almost needless to say that Dr. Henry is entirely exculpated from any imputation of the kind.

Ignorance.—We believe that no course of Professor Huxley's Lectures have been published since those in our Volumes for 1857. We recommend you not to do as you propose, but get together a committee of a few friends, and establish a Dispensary.

Mr. J. Dixon Adams.—There is no special work on that peculiar branch. Consult Dr. Snow's work on "Anæsthetics;" Dr. J. Chapman on "Chloroform and other Anæsthetics, their History and Use during Childbirth;" and the chapter on "Chloroform" in Druitt's "Surgeon's Vade-Mecum," eighth edition.

Mistaken Identity.—We are requested to state that there are two gentlemen of the name of Herapath in Bristol, viz., *Mr.* W. Herapath, F.C.S., of Old Park, Professor of Chemistry and Toxicology at the Bristol Medical School, and *Dr.* W. Bird Herapath. It is requested that parcels, letters, etc., may be directed accurately, so that they may reach the particular person for whom they are intended.

Mr. Samuel J. Mackie, F.G.S., is a candidate for the office of Assistant Secretary to the Geological Society. Mr. Mackie's name is well known in connexion with the *Geologist*, and the scientific department of the *London Review*. We see in the list of his supporters the names of Professor Owen, the Astronomer Royal, Professor Hoffman, and many others who are pre-eminent in science. Mr. Mackie has our hearty wishes for his success.

The following advertisement, with the subjoined testimonial, is taken from the *Leeds Herald* Advertiser. Comment is needless. Had we not found Mr. Ewart's name in the official register, we should have regarded the testimonial as a fabricated one. As it is, we are bound to notice it. Is deeper degradation of a Professional title possible?

"THE ANTIDOTE.—Baxter's Lung-Preserver enjoys a success unparalleled! Its value to those who suffer from Pulmonary Complaints is inestimable! The 'Slight Cold' yields to it in a manner truly amazing! The symptoms of advanced Consumption, too, are alleviated as by a charm. Asthma and Bronchitis flee away as 'chaff before the wind.' The Organs of Voice have imparted to them a clearness of Tone, Sweetness, and Purity, which renders the Lung-Preserver an universal favourite of those who exercise their Vocal Powers in public. It is within the reach of all, and so pleasant to take, that children like it. If you have any Pulmonary disorder, try it. To-day you may be in time to destroy the Canker-worm which preys on your vitals. To-morrow it may be Too Late! Life is precious, and hangs upon a very slender thread! At once, then, send to an Agent for a bottle of 'Baxter's Lung-Preserver,' and prove that it really is inestimable.

"*Testimonial from J. Ewart, Esq., M.R.C.S., Burley road, Leeds, formerly Surgeon to the Newcastle-on-Tyne Public Dispensary.*

"Mr. R. W. Baxter.—Dear Sir,—I have much pleasure in expressing my admiration of your 'Lung-Preserver,' the good effects of which I have noticed on several occasions.

"I am very much opposed to Patent Medicines generally, and totally discountenance the noxious 'Balsams, Oxymels, Elixirs, Syrups,' and other emanations of unprincipled Empirics. But I regard your 'Lung-Preserver' as a really good preparation, and entirely free from those properties which render most Patent Medicines dangerous, and possessed of those Tonic and Stimulating Properties which will render it a treasure to those who suffer from the exhausting effects of Pulmonary Disease and Chest Affections generally.

"In cases of Asthma, it quickly cuts short the Paroxysm. In Chronic Bronchitis or Winter Cough it is very useful; the discharge of mucous is greatly assisted, and the Wheezing and Difficulty of Breathing are relieved by it. In Acute Bronchitis it is also beneficial; and whilst it tends to check inflammation, it promotes expectoration, and thus relieves the laborious and difficult breathing so general in these attacks.

"As a Cough Medicine for the young and the aged it is excellent. The poor who cannot afford Medical advice will find it invaluable.

"J. EWART, M.R.C.S., 48, Burley-road, Leeds."

Blindness in Sheep.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Among the hills and moors of the North, I am told that, during a severe winter, and also previously to one, the sheep are afflicted with temporary blindness, which disappears with the frost. Can any of your readers give me any explanation of the physiology and pathology of this bliudness? I am, &c.

SEMPER IDEM.

The Turkish Bath and Homœopathy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to call the attention of the Profession, through the medium of your columns, to the fact, that the Oriental Bath Company distribute to their customers a certain pamphlet, entitled "The Turkish Bath an Auxiliary to Medicine," "reprinted from the *British Journal of Homœopathy*," in which we are informed that the great advantage of this bath is its power of increasing suseeptibility to the action of infinitesimals (p. 20), besides narrating cases of consumption treated by homœopathic medicines and Turkish baths, with "immunity from the torture of blisters and drugs," (p. 19); and your readers, perhaps, are not aware that shampooing has possibly some mesmeric influence (p. 17).

How homœopaths can conscientiously recommend Turkish baths is best known to themselves; but, if the Oriental Bath Company think fit to become the tool of quacks, it behoves the Profession to be on their guard. I am, &c. T. J.

The Cause of the "Will-o'-the-Wisp."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your Journal for the 8th of this month, I observe some observations on the so-called "Will-o'-the-Wisp," and my reason for noticing the subject is, that it is therein stated that marsh gas, or light carburetted hydrogen, is the cause of the phenomenon. Now, I can find no author who states that to be the case; in fact, Dr. R. Dundas Thomson, in his "Dictionary of Chemistry," says, that the above-named gas requires a white heat to inflame it; therefore, we may safely conclude that it is not self-inflammable. But it is well known that phosphuretted hydrogen is self-inflammable when in contact with air; and, moreover, every authority I have referred to (and the authors have been several) states phosphuretted hydrogen to be the cause of the "*ignis fatuus*." The question now is—Which is the true explanation of the phenomenon? Apologising for taking up your valuable space,

I am, &c. H. L. MAYSMOR, M.D., F.R.C.S.E.

33, Mornington-road, Regent's-park, N.W., November 17.

Garibaldi's Wound.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—On reading Professor Porta's report of General Garibaldi's wound, it appeared to me that the bullet must still be in the wound, for the following reasons:—It is to be presumed there was no perforation of the boot, stocking, or trowser, other than the one the bullet entered by; if so, all doubt would be at once removed, and the learned Professor would tell us the bullet entered there, struck the internal malleolus, glanced off, and went out by that orifice; but he only says, "that the projectile, after passing through the four layers formed by the trowser, boot, sock, and skin, struck the malleolus, separated it at its basis, and glanced off without penetrating into, or running round the articulation."

Where did it go to? is the question I would like to have answered.

Is it not improbable it should glance off "from below upwards," and yet drop through the same hole in the different coverings it entered by? To me it seems nearly impossible it should do so, as undoubtedly the bullet was more or less flattened by the concussion, and consequently enlarged. Dr. Albanese, who was with him, must have thought so too, as he made an incision in search of the missing projectile. It seems strange that chloroform has not been employed in making an exploration of such great importance. I for one cannot imagine a correct conclusion can be arrived at by "inserting a bluut probe gently," and turning it round in the wound.

The importance of the subject must be my excuse for troubling you with these remarks. If they have been made before, there is an end of the matter. Who would leave a stone unturned to serve such a man as Garibaldi? I am, &c.

November 14. T. Cary, M.D.

Chronic Induration of the Prepuce.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If any of your numerous readers can offer me a beneficial course of treatment in the under-mentioned case, I shall feel deeply indebted:—I have under my charge a gentleman, aged 25, always in good general health, save that the system is somewhat debilitated by two attacks of syphilis contracted four years ago. Every vestige of that, however, has entirely disappeared, save that on the edge of the prepuce (which is more than ordinarily long) there exists an old induration about the size of a pea. There is a deep fissure in this induration, consequently the foreskin is much contracted over the glands. Till lately, it has not given way; but now, every time during the act of coition, the fissure breaks down, and leaves a large open excoriation, which rapidly heals, but for no length of time, causing him great inconvenience, as he takes horse exercise daily. I should add that he is married, and sober in his habits, and most anxious he is to have his ailment remedied. Hence my appeal to your Journal.

I am, &c. A Subscriber.

Fatty Coagulum the Cause of Retention of Urine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following case may not, I trust, be undeserving a place in your columns. It presents some features of novelty, and perhaps some degree of interest:—

On the evening of October 17, I was called on to go to see Mrs. L. (a former patient of mine), who resides some five miles from town. She, as I was told, was suffering from (as quaintly expressed) "stoppage of water." On my arrival I learned that she had not passed water for twelve hours before, and, as is usual on such occurrences, she was in a very excited condition. The retention was not complete (I employ the term "retention," as it embraces all the causes of obstruction), as water flowed away in drops, which gave rise to excruciating pain. As she had no headache, I gave a grain of opium, and an ounce of the following mixture:—℞ Liq. ammoniæ acet., ʒij.; syrupi zingiberis, ʒvj.; aquæ fl. aurantii, ʒjss.; misturæ camphoræ, ad ʒv. In an hour afterwards I introduced a female catheter, and drew off a wineglassful of water, which contained a single filmy cast. I repeated the mixture, and she soon after felt inclined to pass water; while doing so she passed a fatty coagulum, full of reticulated interlacements and red striæ. She felt quite well soon after. She had never before any difficulty in passing water.

So far as I am aware, the case alluded to is without a parallel; for, on looking over several works on the urine and urinary organs, I do not find that a coagulum of this kind has ever been met with, as causing retention of urine. There appears to be no difficulty in accounting for the way the obstruction was produced, as it is probable that the coagulum lay on the neck of the bladder, and thus prevented the flow of the urine. Another feature in this case is,—How are we to account for the formation of the coagulum, granting that she is pregnant (a state which we cannot fully recognise)? Can we, on this account, suppose, that it may be the kiestcine of M. Nauche which formed the coagulum? It could not be the result of cystitis, for she never suffered from it. The patient has not since been ill. I am, &c.

Limerick, November 17. T. B. Moriarty, A.B., M.D., etc.

Why Chloroform Accidents Occur.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A very damaging article to the Profession generally, with some threads of truth unfortunately running through its web and woof, appears in the *Social Science Review*, on the insufficient care and want of skill evinced by those first year's students, and nurses, and even "hall porters!" who are in the habit of administering chloroform in London. This article, I regret, has gone the rounds of the provincial newspapers, and will do immense mischief. Two deaths at one London Hospital, within a few days, very recently, are given, which were not noticed by the journals—deaths which are, no doubt, very deplorable for the orphans and sorrowing, pauperised widows, left desolate by these unhappy misadventures. I visited a Hospital this winter to see operations, and I must confess I was glad to get away out of it, as I expected every instant to see patients under chloroform drop dead on the table; the first year's student who was applying it was so absurdly ignorant of the whole thing. Can nothing be done to prevent such misery surrounding a beautiful and most useful agent? A committee of the Medico-Chirurgical Society, to investigate the subject, is talked about. It is to be hoped they will not go over ground already trodden down or exhausted, viz., the effect of chloroform on the lower animals.

I was solicited recently, as a public charity, by the secretary of the Royal Humane Society, to furnish him with some rules, to be printed, for the restoration to life of individuals in a state of suspended animation from chloroform, carbonic acid, etc. The thing is easily done; but it looked so like a censure on chloroformists in general, that I hesitated to send such rules. There is no doubt that our first year's young men must all learn in time how to apply chloroform, but would it not be well that it should be confined rather to third year's men, or those others who have already gone through that new world, alphabetical metempsychosis, the College M.R.C.S.? It may not dim the overpowering lustre of that corruscating legend after the House-Surgeon's name (one cannot write soberly on such things), but it would certainly save some lives. Coroners' juries also are bewildered; and corruscating coroners bring half-a-dozen books, all with different directions, to guide them; but we ought not to have such inquests at all, with contending evidence; they can do no good.

It is a painful reflection or corollary, also arising from the same state of things (which rendered the late Dr. Snow also miserable), that the only time that chloroform takes a start with the Profession is in a "quack" shape. Let the "blustering Boreas" of quackery, inside or outside the Profession, only blow, and chloroform, with full sails, will go ahead (my meaning will be apparent before many weeks have passed over); or a man may spend a dozen years watching chloroform effects in midwifery, deutistry, eye surgery, etc., and have learned exceptional little points, where to be cautious or where to expect danger; but let any one arise, and promise universal impossibilities, in puerperal convulsion for instance (to mention one case), and he has a much better chance of being heard. These things are, perhaps, very melancholy. I wish they were not true.

I am, &e.

Sackville-street, November 16. C. K.

P.S.—A wretched trial is coming on in the Queen's Bench. Mr. Davenport, chemist, seeks to prevent the Profession in any manner imitating, certifying for, or using any kind of, "Chlorodyne" but his. His plea is, that it is not a compound of chloroform, but a secret remedy that he discovered in India. The Professiou have been allowed to mature the idea that it contains chloroform; but this is probably only a misapprehension for chloric ether, or Hoffman's anodyne ether. As a secret remedy it is now urged on the Profession.

COMMUNICATIONS have been received from—

A St. Andrews Man; Mr. Devenish; Mr. E. Barnes; Dr. T. Cary; Dr. Kidd; H. J. F.; Mr. W. Herapath; Mr. J. G. Braid: Dr. Leney; Dr. R. P. Cotton; Mr. H. Long; Mr. H. J. Thorpe; Mr. Hutchinson; Mr. J. Dixon Adams; Dr. Maysmor; Ignorance; Mr. R. H. Mair; Medicus; Dr. Garrod; Mr. J. Adams; Dr. G. Johnson; Mr. H. Walton; Dr. James Russell (Birmingham); Mr. Woodman (London Hospital); Dr. Hillier; Dr. J. McCall Anderson; Mr. G. Herring; and Dr. H. Jackson.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 15, 1862.

BIRTHS.

Births of Boys, 928; Girls, 976; Total, 1904.
Average of 10 corresponding weeks, 1852-61, 1641·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	732	697	1429
Average of the ten years 1852-61	621·3	581·8	1203·1
Average corrected to increased population..	..	..	1323
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	1	4	14	3	4	7	3
North ..	618,210	1	19	20	3	7	16	5
Central ..	378,058	2	8	16	..	9	11	4
East	571,158	7	19	19	4	5	24	11
South ..	773,175	2	15	30	7	15	12	6
Total.. ..	2,803,989	13	65	100	17	40	69	29

APPOINTMENTS FOR THE WEEK.

November 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

24. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures—Lecture II. "Private Hygiene: The Means of Preserving Individual Health. Public Hygiene: Collective Differences in the Organic Type of Masses, Mortality and Duration of Life, etc." By James Bird, M.A., M.D., F.R.C.P.

25. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Wm. Smith (Chesterfield), "On Poisoning by Oil of Wormwood." Dr. Webster's "Notices of a Cæsarean Operatiou, etc., at Moscow." Dr. Dobell, "On Hereditary Transmission."

26. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

28. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergusson—For Epulis; Hare-Lip; Resection of Knee-Joint.

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"Evercreech, Somerset, March, 1862." "F. PORTER SMITH, M.B. London, M.R.C.S., Associate of King's College, London.

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ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE VI.—*Use and Relations of the Pale Cells and Lymph Corpuscles—Of the Molecules of the Blood—Molecular Base of the Chyle and Fatty Matter—Life of the Blood and Harvey.*

IN the last Lecture, we considered some of the relations and uses of the red corpuscles, and now proceed, in due order, to discuss, under the same points of view, the other corpuscles of the blood.

Use and Relations of the Pale Cells and Lymph Corpuscles.—As noticed, under the head of "Development," the pale cells are considered as specially devoted to the production, for the supply of waste, of the red corpuscles of vertebrates; in the pyrenæmatous group, the pale envelope, or cell-wall, being transformed into the red one, within which the nucleus is permanently retained; while in Apyrenæmata the nucleus of the colourless cell escapes, and becomes the regular red corpuscle, which is destitute of a nucleus. In Lecture II. we have shown perfect red corpuscles within cells. The pale globules, as well as the red corpuscles, have been considered as free glandular cells, and both of them supposed to be concerned in the elaboration of the fibrin,—notwithstanding the deficiency of fibrin and the excess of the pale cells in the venous hepatic blood; yet certain it is, that the pale cells may be remarkably numerous during the formation or increase of fibrin in animals, and comparatively scanty while it is not in excess.

But not so in vegetables, in which fibrin is formed quite independently of any free cells at all, as I have more particularly explained in the *Annals of Natural History* for March, 1862, and of which an example is represented in the diagram (Fig. 11, *c*); for, notwithstanding the statement in Dr. Carpenter's large and excellent work on Physiology, that there is no substance in the plant at all resembling the fibrin of animal blood, it seems very unlikely that the existence of a spontaneously coagulable principle in certain vegetable juices can have been overlooked; and, indeed, I think Dr. Turner has described it in the carrot and beet-root, and Dr. Davy in the star-apple. For several summers I have been in the habit of experimenting on the spontaneously coagulable latex of certain Exogens, and of sometimes witnessing fibrils in the clots, and this with an entire absence of any kind of free cells whatever; and thus, independently of facts to be adduced in a future Lecture, we might fairly infer, that neither the pale globules, nor any other kind of free cells, are essential either to the formation or coagulation of fibrin. But we shall have to revert to this spontaneously coagulable juice of plants when describing the fibrin of the blood.

Fig. 11

FIG. 11.—Latex of vegetables: *a*, Molecules in Urticaceæ, Convolvulaceæ, Cynarocephaleæ, &c.; *b*, Molecular Base in Papaveraceæ, Campanulaceæ, Cichoriaceæ, &c.; *c*, Fibrin of some Cichoriaceæ coagulated into fibrils.

We have in Lecture II. insisted on the evidence of the immense importance of the pale cells of the blood; and, whatever may be their precise office, they have certainly some other use besides that of forming the red corpuscles, because they exist, and may be the chief cells in blood which has no coloured corpuscles. Indeed, so far from being merely subservient to that end, the pale globules must have a far wider import; for we find them diffused more or less through the animal kingdom, and often the only, or, at least, the prevailing corpuscles of the blood of invertebrates. Still, we cannot assert peremptorily, that they may not be destined to one end in one class, and to a different end in another; and it cannot be predicted *à priori* from mere structure or organisation what may be ultimately developed from either an animal cell, a vegetable spore, or a seed. Indeed, the future development and end of the pale cell may depend on the conditions in which it is placed; and so, too, of the molecules. As to the corpuscles of lymph and chyle, we have already shown that the majority of these are nuclei, and not cells like the common pale globules; though these cells may be found sparingly in both the lymph and chyle, while they are the most common or abundant pale corpuscles in the blood.

Use and Relations of the Molecules of the Blood—Molecular Base of the Chyle and Fatty Matter.—We have already pointed out that the molecules or granules are partly of a fatty and partly of an albuminous nature. Their special use is as obscure as it must be important. They are taken little or no notice of in connection with the formation or supply of either the red or pale corpuscles of the blood. It is often objected that the molecules are only fatty matter,—"nothing but fatty granules,"—and but with little reason; for a fatty granule may be either the foundation or pabulum of a cell, and the destination of that cell of very high importance. Whether this may be the purpose of the molecules of the blood is another question of great interest, well deserving of those further inquiries which, in the present state of science, are still required. Certain it is, that molecules of a fatty nature are intimately connected with either the genesis formation or development of cells and other organisms: whether as nutritive pabulum, or morphological foundations of the cells, or for both these uses, is a question of much interest. The immense importance, too, of fatty matter in disease has only been recognised of late years; for when, in 1843 (*Medico-Chirurgical Transactions*, vol. xxvi., and *Edinburgh Medical and Surgical Journal*, vol. lx.), I first pointed out fatty degeneration in a variety of organs, such as the arteries, testicles, kidneys, the lungs, and in the blood, and showed that fatty disease of the minute vessels of the brain is the proximate cause of sanguineous apoplexy, we used only to hear of fatty degenerations of the heart, muscles, bones, and liver. Professor Liebig's theory of fat being mainly of use for the production of heat, by combustion in the lungs, need be no hindrance to the views we have expressed; for, independently of the facts already mentioned, we know that fatty matter is very abundant in fishes and other cold animals as well as in vegetables.

A series of observations and experiments, twenty years ago, led me to conclude that fatty matter is intimately concerned in growth and nutrition, both healthy and morbid. The molecular base of the chyle, as was then shown, is composed of very minute and equal sized fatty particles. These are smaller and fainter than the more definite and unequal-sized molecules and nucleoli of cells; but these nucleoli are more or less of a fatty nature. This fact was confirmed by chemical examinations, kindly undertaken at my request by Dr. Davy. You cannot fail to see molecules similar to those of the blood in parts where development or growth is active, whether healthy or morbid, while even one or more of the molecules may occasionally be observed with a newly-formed or forming cell wall. And when development is actively going on, a congeries of molecules may be seen around the growing point or surface, often between the nucleus and cell wall, these molecules disappearing as the process becomes complete. They are generally mixed more or less with minute albuminous granules, or present in a ground or blastema, which may be either quite hyaline or very finely granular; and, indeed, according to the interesting observations of Acherson, fatty molecules in an albuminous fluid must have a protein-like coating or pellicle, like milk-globules. Sometimes a large cell dissolves and discharges a quantity of molecules; but they more commonly seem to be formed immediately in the blastema. Just at the commencement, and during the periodic enlargement of the testes in all the three classes of pyrenæmatous vertebrates, the great abundance of these molecules in the semen is very remarkable; and the diminution in the quantity of the molecules after the testicles become ripe, and the spermatozoa shed, is equally regular and striking. Birds and snakes are good subjects for these observations. I have also used the testicles of Apyrenæmata, as of the red and fallow deer, for the purpose. The periodic increase

Fig. 14.

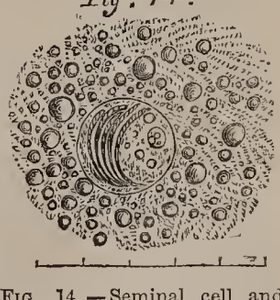

FIG. 14.—Seminal cell and molecules of a bird just before the perfection of the spermatozoa.

of the molecules is as regular as that of the seminal cells and spermatozoa. The molecules are numerous and regular in the blood of young animals, especially sucklings, during digestion, most abounding at the conjuncture of the greatest activity of this process; and may be seen, too, in the thoracic duct and large lymphatic vessels.

Considering all these facts, whatever else may be the destination of the molecules, it is probable that they form part and parcel of the pabulum of growing cells and foundations or nucleoli of cells, as well as germinal points of other structures, and are thus of very high importance in growth or nutrition. This is the view which I have for many years entertained of these molecules (Notes to Hewson's works, published for the Sydenham Society; *Proc. Zool. Soc.*, July 26, 1842; *London Medical Gazette*, 1844, p. 411), and the evidence in its favour has accumulated since. Yet, even in the present more advanced state of knowledge, we must rather present the question in the form of hypothesis than of perfect demonstration; but still, as one of those legitimate hypotheses which, according to Lord Bacon, may be useful in pointing out a path for rational experiment and observation. Nor, in this day, is it necessary to insist on the interest and value of every part of the wide field of research concerning cell-genesis; or of the origin of parts independently of cells, as Mr. Savory has so well shown, in accordance with my early objection to the full validity of the German doctrine. As to the relation of the molecules, it only remains to mention their similarity to the objects in the latex of certain plants (Fig. 11, *a*), as shown in the diagrams, which also exhibit the difference between the molecules and the particles composing the molecular base of the animal chyle, as well as of some kinds of vegetable latex (see Figs. 11 and 7). By dissolving, in acetic acid, the albuminous film of the minute particles composing the molecular base of the chyle, you may see how readily they coalesce into larger and more unequal-sized fatty globules. The particles of the molecular base of the chyle of Apyrenæmata appear to be the first organic precipitate in that fluid; and any speculations as to their use would lead us over the same ground concerning the import of fatty particles in the animal economy, while we have already shown that this molecular base is common in the blood of the higher animals during digestion, and has its analogue or homologue in the juice of some plants.

Fig. 7

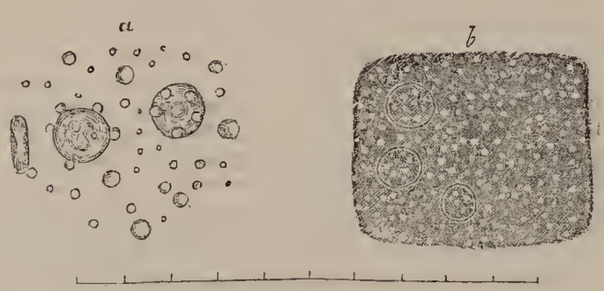

Fig. 7.—At *a*, the molecules or granules, and three red corpuscles of the blood; *b*, molecular base of the chyle and three chyle-globules; these globules do not differ from those of lymph in chemical and physical properties. (The minute particles forming the molecular base are difficult to engrave on wood; they are better delineated in the "App. to Gerber's Anat.," and in a note to Willis's "Tr. of Wagner's Physiology.") All the objects are from the same child as Fig. 5.

Life of the Blood and Harvey.—If any evidence of this life were wanting, it would be abundantly furnished by the properties we have described of the red and pale cells, quite independently of the vital endowments of the fibrin so beautifully proved by Mr. Hunter. It was a strange mistake of the excellent Professor Milne Edwards to represent me as sceptical of that life, as will be more particularly shown in the lectures on the fibrin. Well, indeed, might Harvey describe the blood as the primogenial matter and vital spark, to which every other part of the body is posthumous, the first to live and the last to die, and the immediate or central seat of the vegetative faculties of the animal. A sublime exposition this of the solemn and sacred declaration of the Pentateuch! Each successive addition to our knowledge, the result of all our worthier subsequent inquiries, the sum of all the best ascertained facts up to this day, have either but confirmed or added to Harvey's masterly proofs of the life of the blood. Indeed, the early development of this marvellous fluid, its central position as the highest member of organic life, and consequent power of self preservation, are among the latest current expressions of this vitality; a subject which was treated in this place very instructively by my respected predecessor, Professor Paget.

The magnitude of Harvey's grand discovery seems to have eclipsed his other important labours, even more than the masterpieces of Shakspeare and Milton did their valuable minor works. The greatest poet tells us, that "one touch of Nature makes the whole world kin." Harvey might have known Milton personally, though, unfortunately, there could have been no cordiality between these great men. Yet they were allied in the rare attribute of genius. There is a sublimity in Harvey which has never been equalled by any physiological writer since the revival of letters; as may be well seen in his book on "Generation," where he dwells so much on the blood and its endowments. But this is to very little purpose for the present time, judging from the ominous silence as to our obligations to him. He seems, of late, never to be quoted or referred to on the subject, except in the interesting lectures published some years ago by Mr. Ancell. Still, Harvey might be more read, if not for his physiology, at least for the pleasure of the garb in which he has dressed it. Some of his "Exercises," as he calls them, read more like a solemn hymn to the dignity of the blood than a mere physiological dissertation. His was, indeed, the magician's wand, that made precious all it touched. With the true quality of genius, he creates beauty, truth and order, out of plainness, obscurity and confusion; and we may be justly proud to rest the true doctrine of the life of the blood generally on the conclusive proofs so long since adduced by this our illustrious countryman. And, while we admire the brilliant and special lights of Hunter, we may regret that he did not so entertain Hewson's inquiries as to enjoy the delight of realising the further conclusive evidence of that vitality afforded by those distinct, curious, and beautiful little organisms, the red corpuscles; just as we might also wish that Harvey had lived to have the final triumph of seeing, by means of the microscope, their currents, as the crowning demonstration of his great discovery of the circulation of the blood.

But, although Hunter ever remained so ignorant of the red corpuscles as to declare, in his last work, that they had then "received more attention than they deserved, as if they could explain any principle in the blood or animal economy"—thus, unfortunately, despising the excellence of Hewson's observations—it will be shown, in a future Lecture, how much Hunter was in advance of the knowledge of his time concerning the vital endowments of the fibrin; and more especially, as his great merit in this respect has, of late years, been ignored or obscured by a crowd of imported new names and questionable conclusions, too hastily admitted and made current in our Schools, to the neglect of his more simple, beautiful, and true observations.

ORIGINAL COMMUNICATIONS.

CASE OF

RAPID SPONTANEOUS CURE OF POPLITEAL ANEURISM—WITH REMARKS.

By CAMPBELL DE MORGAN, F.R.S.
Surgeon to the Middlesex Hospital.

(Concluded from page 544.)

In Dr. Bellingham's "Observations on Aneurism" is the case of a private of the 7th Fusiliers, who had a popliteal aneurism. He was admitted into the Regimental Hospital. The aneurismal tumour was then nearly as large as a goose's-egg; pressure on the artery above diminished its size, but did not completely empty it. The patient complained of no pain. Compression was commenced July 30, at 11 o'clock a.m., by two instruments, which were alternately relaxed. At 9 o'clock p.m. very severe pain in the ham set in: the patient unscrewed the instrument, and found that all pulsation had ceased.

In the case before alluded to as having occurred in Mr. Cusack's practice, the patient, a Medical man, had discontinued pressure on April 14. "The tumour had become more solid, and diminished in size, but pulsation could still be detected." "In riding a spirited horse on May 22 follow-

ing, he made a sudden exertion, which was followed by great pain in the knee and tumour, which increased at night. He took a full opiate, which procured sleep, and on awaking the pulsation of the aneurism was found to have ceased."

A case was under the care of Mr. Prescott Hewett, at St. George's Hospital—(see *Medical Times and Gazette*, Vol. ii. for 1853, p. 451)—in which compression had been used for a very long time, when, "at the latter end of June, a new nurse having been appointed to the ward, the case was very closely watched, and the instruments were kept constantly applied. The patient again complained of intense pain in the cap of the knee, and of a burning sensation down the leg. This went on for two or three days, and, on July 1, all pulsation suddenly ceased in the tumour."

In the second vol. of the *Medical Times and Gazette* for 1856, p. 593, is a case of popliteal aneurism, under the care of Mr. Lawrence, at St. Bartholomew's Hospital. The patient was a robust young man of 27. Compression had been used for seventy-six hours cautiously, "the stream of blood through the tumour being retarded merely, and not nearly arrested." The man having suffered no inconvenience, the tourniquet was screwed tighter. On the following day the man complained of pain in the tumour, and, fearing inflammation of the sac, Mr. Lawrence ordered the immediate disuse of all compression. "The pulsation, though not so powerful as at first, was still very distinct. Within a few days of the laying aside of the compression, however, all pulsation ceased."

The report says that, "in attempting to explain the occurrence of consolidation under these circumstances, the conjecture seems not improbable that the impaction of a portion of fibrine in the distal trunk had been the cause of the pain in the tumour of which the man complained; and that this, in itself, not at first sufficient to occlude the vessel, had subsequently become coated with lymph, and finally acted as a plug."

There would be no difficulty in mentioning other instances. They all serve to illustrate the connection between pain in the sac, and the rapid cure of the aneurism, the cure being apparently rapid in proportion to the amount of pain. This, however, is a point which requires further observation.

With regard to the cause of the pain, the explanation offered by Dr. Bellingham is by no means satisfactory. We have no evidence whatever, that the sudden enlargement of the collateral arteries gives rise to pain under any circumstances. No such effect has followed the ligature of the largest arteries, when the enlargement of the collateral vessels must be much more rapidly effected than could be supposed possible in cases such as these, where compression had been already made for some time on the main trunk.

The pain, moreover, ceases as soon as the pulsation in the sac is arrested, though at this time the collateral circulation must be more active than when blood was still passing through the tumour.

The opinion advanced by Mr. Wardrop is, that the fibrine is deposited in layers, not by successive processes of coagulation of the blood, but by an exudation from the inner wall of the sac, so that the layers of earlier formation are pushed inwards towards the centre by the new deposits that are taking place at the circumference. This view is supported by Mr. Luke in reference to the case before mentioned. It would, no doubt, serve to explain the phenomena observed in these cases of sudden or rapid cure more satisfactorily than any which has been offered. Supposing the wall of the sac capable of secreting these fibrine layers, we could readily understand that, if, from any cause, a greatly increased action were excited, giving rise to the pain so acutely felt in these cases, a rapid effusion would take place capable of filling up the cavity which had already been diminished by previous depositions. The notion is, however, entirely hypothetical, and, independently of all other considerations, is disproved by the fact, that in all cases the layers of fibrine nearest to the sac are the most dense, and sometimes even have advanced towards organisation, while they are softer and more like simple blood coagula the nearer they lie towards the centre of the cavity. This could not be the case if the inner layers were the earliest formed, and were pushed inwards by new formations from the wall of the sac.

Neither is the generally received opinion, that these cures are due simply to impaction of a piece of dislodged fibrine in the artery below the tumour, altogether satisfactory. It may, in the first place, be reasonably doubted whether such an impaction would cause a rapid cure. It has not done so in any of the cases in which the general symptoms or the post-mortem appearances leave no room to question its occurrence.

In Mr. Fergusson's first case, for example, pulsation, although it became much less strong, never ceased entirely; yet the artery beyond the aneurism had been effectually blocked by lymph. In the case treated by Mr. Little (*Medical Times and Gazette*, May, 1857, and mentioned by Mr. Holmes in his article on "Aneurism"), the evidence of obstructed artery *beyond* the tumour was clear three days after manipulation had been practised, but the pulsation *in* it ceased only gradually.

In the second case which I have mentioned—that of B.—where the pulsation rapidly ceased, and, after some hours, almost as rapidly returned, the evidence of impaction was positive; but, for the reasons before stated, this must, I think, be regarded as an instance of obstruction to the entrance of blood into the aneurism, not to its exit; and, at any rate, the symptoms were very different from those noticed in H., and in the cases like his. There was no aggravated pain at the time, and the limb below became cold and livid. In the same way, in all the cases of manifest stoppage by a plug of fibrine, the indications have been found in the condition of the parts beyond the plug—coldness and loss of power in the arm when the aneurism has been on the subclavian artery; cerebral affections when the innominata or carotid has been the seat of the disease; but we have no mention of any particular change in or around the tumour.

In cases of plugging of a large artery by fibrine detached from the heart or elsewhere, excessive pain is frequently present; and hence, it might be supposed that the pain in these aneurisms would be fairly attributable to the same cause. But there is a wide difference both in the character and mode of accession of the pain, as well as in its situation, in the two classes of cases. In the ordinary case of embolus, the pain is sudden, sharp, and agonising at the seat of the obstruction; while below the limb is cold and numbed. In these instances of rapid cure of aneurism, the pain often increases in intensity somewhat gradually, is burning and tensive, and is situated in the tumour, not at all beyond it; the limb below presenting no unusual characters. Then, again, the pain and throbbing in the aneurismal cases have come to their climax just before the sudden or rapid arrest of the pulsation. If the stoppage of the pulsation were coincident with the detachment and driving forwards of a plug of lymph, that should be the moment of pain or of some recognisable impression at the seat of the plug; but there does not appear to have been anything of the sort. If, on the other hand, the aggravated pain indicated the period of the plugging, we should expect a gradual cessation of pulsation and pain alike, not a yet further increase, and then a sudden stoppage, of both.

Of course, it must be remembered, that in these cases the collateral circulation is partially, or it may be fully, established, which would greatly modify the effect of sudden obstruction of a main trunk; but, making every allowance for this, it would be still as difficult to understand how the phenomena observed could be dependant on the presence of a detached clot in the artery below the tumour.

It does not seem to me, then, that the causes usually assigned of the rapid cure of aneurism are quite so tenable as at first sight appears. Nor am I in a position to offer a more satisfactory one, based on any sufficient grounds. Post-mortem inspection can alone furnish conclusive evidence. There is no positive proof of the existence of embolus, nor are the symptoms such as would probably be produced by a plug alone, uncomplicated with other and equally important conditions. Whatever may be the true explanation, so important to perfect treatment is a right knowledge of the natural processes which are in operation to produce a cure of aneurism, that every opportunity should be taken to investigate them. Even without the decisive proof afforded by post-mortem examination, a solution of the difficulty may, perhaps, be obtained by careful observation of the sequence of the phenomena, and of the actual condition at each stage of the process.

The points to be noticed, then, are these:—That in the instances of rapid, spontaneous cure, as a general rule, compression has been applied to the artery above the tumour with more or less effect. In one case (that under Mr. Luke) the pressure was used *upon* the tumour, though, so far as appears from the published account, not with any amount of force. Indeed, before the reintroduction of the treatment by compression, the recorded cases of this rapid cure are very few. Mr. Hodgson, in his great work on the "Arteries," says, "The pro-

cesses by which the spontaneous cure of aneurism is effected, so far as I have been able to collect from the different cases upon record, and my own observations, are the following:—

"1. The removal of the whole tumour by sphacelation, in consequence of the extreme inflammation excited by the distension of the surrounding parts.

"2. The tumour assuming such a position as to obliterate, by its pressure, the superior or inferior portion of the artery.

"3. The *gradual* deposition of the fibrine of the blood in the aneurismal sac," etc. And he gives no instance of rapid cure, save one, in which, however, compression was used to the whole leg, and along the course of the artery. It was a case of femoral aneurism (a). The patient was bled copiously, and adhered to low diet. Compresses were applied above the tumour in the course of the femoral artery, and the limb was rolled equally and tightly from the foot to the groin. The application of the roller increased the pain, and he suffered much from fever. This plan was continued for some months, when, on a sudden, the limb became extremely cold and benumbed, the tumour and upper part of the thigh put on a livid appearance, and serious apprehensions were entertained for the safety of the limb, which was hourly expected to become gangrenous. On the morning subsequent to this alarm the pulsation in the tumour had ceased; but the livid colour and defect of sensibility continued. The pain was abated, etc., but the thigh remained four inches more in circumference than the opposite one. Twelve years after, the swelling enlarged again; and twenty-two years after the beginning of the disease, when Mr. Hodgson saw him, it sloughed and burst. Coagula in a putrid condition were discharged, and he died of irritative fever. From the appearances on dissection, Mr. Hodgson thought that the original arrest of the disease was due to compression of the artery against the bone by the increase of the sac. The actual condition of the patient, with reference to pain at the time of the stoppage of the pulsation, is not mentioned; it is only noticed that the pain was abated. The case is, perhaps, one of the same kind as those described; but there was more evidence of obstructed circulation through the limb.

The second point to be specially noticed is the existence of severe pain, which appears to be present in all these cases, Mr. Teale's forming, perhaps, an exception; but reasons have before been given for excluding it from the category of cures such as are here brought forward. The pain sometimes comes on shortly before the cure is effected. Sometimes there is a great aggravation of a pain which has existed throughout the course of the disease, or for some time previous to the cure. It is accompanied with increased pulsation, which is, perhaps, its exciting cause. The pain is always greatly relieved, and sometimes ceases entirely, when the pulsation stops. The fact has, indeed, been recognised by some Surgeons, that when in the progress of treatment by compression unusual pain sets in in the sac, a cure is not far off.

Thus, then, it seems that the first condition is, an impeded circulation through the tumour, so as probably to induce the formation of fibrinous layers and the enlargement of the collateral vessels; and next, an increased pain and throbbing in the tumour, speedily followed by entire stoppage of the pulsation and cure of the disease.

In these cases the pain and the cure must, I think, be regarded as standing in some definite relation to one another, not as mere accidental coincidences. And it is this which induces me to class them all under the head of "spontaneous cures," though in reality they have taken place at the time when, or shortly after, Surgical means were applied. The previous treatment may be regarded as a means predisposing to cure.

There is yet another point which it is of the greatest consequence to observe before any fair conclusions can be arrived at, but on which I am sorry that I am not in a position to throw any light, either from my own cases or from those recorded by others. It is as to the condition of the arteries, with reference to pulsation, below the tumour, at the time when the pain and throbbing are present in it, and before the arrest of the pulsation. If the pulsation in the arteries of the foot be entirely stopped at the same time that the tumour is beating violently, it would give great countenance to the notion that a plug was present. The presence of pulsation would be conclusive as to the absence of any plug in the lower part of the artery which could be effective in curing the disease.

Taking the data which we actually possess, the following propositions as to the nature of the actions which are tending to set up a cure may suggest themselves:—

1. The collateral circulation being already established, a plug driven into the artery below the tumour may give rise to the phenomena.

2. They may be caused by some irritation within or around the sac.

3. They may be due to the concurrence or sequence of some such condition within or around the sac, and the presence of a plug below the tumour.

4. They may be due to the presence of a mass of the contents of the sac which has fallen against the orifice in the artery, and which, having become entangled there, acts as a valve upon it, allowing the blood to enter the tumour, but checking its return into the vessel.

The first of these is hardly, I think, admissible. There would be less probability of a stoppage in the artery below the tumour giving rise to the pain and disturbance within the sac, if the collaterals were enlarged, than if the blood were being sent with all its force upon the tumour, when, as we know, neither the pain nor the sudden stoppage ordinarily occurs.

The second view is not sustained by any fact which would indicate that such a condition of the sac, may take place. It is true, that, since the introduction of Hunter's operation, very few opportunities have occurred of examining the state of the sac under varying circumstances. Whether an inflammatory action short of that amount which has from time to time produced sphacelation, could so operate as to produce rapid consolidation of the contents of the sac, may be a question. There is no evidence which would justify our assuming it as probable; but at the same time it must be admitted that our knowledge of the causes of the coagulation of blood within its vessels is far from complete.

The third view is dependent on the admission of the second, and, if that be admitted, would afford an easy solution. Supposing a rapid or tumultuous coagulation, as the Germans would call it, were going on, with great excitement in or around the walls of the sac, it would not be very difficult to imagine that a mass of the coagulum, thrown into the artery, would give the finishing-stroke to the action already going on.

It is to the possibility of a cure being effected, under such circumstances, that the greatest interest attaches in a Surgical point of view. It would show that, in certain states of the aneurismal tumour, the operation of Brasdor would offer chances of success beyond what are ordinarily present; and that, perhaps, these states might be induced by Surgical interference.

The last explanation was suggested by my colleague, Mr. Moore. It is quite intelligible that, in the course of the coagulation which is going on under pressure, a portion of the contents of the sac might get entangled across the opening into the tumour, which would yield to the force of the blood projected from the artery into the sac, but, on the recoil of the sac, would, more or less, close the opening,—acting like a valve upon it. Under these circumstances, the coagulation would advance far more rapidly, as the current of blood would be greatly checked, and, at length, would advance so far as to close the valve, and prevent further ingress of blood.

During this time the tumour would be rendered permanently tense and painful from the ready and repeated entrance of blood into it, which could not find free exit; and the symptoms which precede the arrest of pulsation might thus be accounted for. This view is extremely ingenious; but there are some points to be made out before it can be admitted as a probably true explanation. It is not easy, for example, to understand how this could take place in a tubular aneurism, such as existed in Mr. Luke's case, where there was a dilatation of the artery, the blood entering at one extremity, and passing out at the other; whereas, in order that this valve-like mass of fibrine should act as described, the orifices of the upper and lower part of the artery should be in the same situation. Again, attention should be directed to the condition of the pulsation. My impression in H.'s case was, that, at the time of most intense suffering and most violent action in the sac, the recoil was fully equal to the dilatation. If that were the case, it is clear that the blood must have found an exit as freely as it did an entrance; and the explanation would not hold good. But I did not examine the tumour with reference to this

(a) Page 107.

point ; and it is not at all certain that my impression may not have been an erroneous one. This, then, is a point to which the attention of the Surgeon should be directed, when aneurisms present those characters which might lead to a belief that rapid cure is about to take place.

It seems to me that there is still so much obscurity in regard to various points connected with the subject of aneurism, that it becomes the duty of the Surgeon to record all cases which present any unusual features ; and with that view I have thought it right to place those which are related in this communication before the Profession.

A LARGE, ROUND, CIRCUMSCRIBED

ACCUMULATION OF FAT ON THE NECK,

HAVING ALL THE OUTWARD APPEARANCE OF A "FATTY TUMOUR," BUT WITHOUT THE STRUCTURAL ARRANGEMENT OF SUCH A GROWTH.

RECURRENCE OF STONE IN THE BLADDER, WITHIN A SHORT PERIOD, IN A BOY EIGHT YEARS OF AGE.

By HAYNES WALTON, Esq.
Surgeon to St. Mary's and to the Central London Ophthalmic Hospitals.

These cases having struck me as being remarkable, I determined to record them concisely.

The subject of the first was a robust and rather fat man, forty years old. He was brought to me, for consultation, by Mr. T. H. Hill, of Sussex-terrace, Hyde-park-gardens, about three months ago. The fatty mass was on the back of the neck, and stood out in relief, forming a great lump. After an examination, I certainly thought it to be an ordinary fatty tumour, although when, according to my custom, I pinched up the surface, to seek for the lobular arrangement which, in such tumours, is generally made apparent by this method, it was not visible, and I said at the time that the absence of it in so large a specimen surprised me. As it produced much inconvenience, and was unsightly, and the man desired to be rid of it, I advised extirpation, and with Mr. Hill's assistance I operated. After the preliminary requisite bold incision, I sought for the line of separation that was naturally to be expected between the new material and the ordinary subcutaneous fat, but there was no distinction to be seen. There was no limit, nor definition of skin. I was, in fact, cutting amongst preternaturally thickened integument. I dissected away completely a part of the fat, and, besides the very tedious process, it was obvious that, by so splitting the skin, the portion left must inevitably die. I proceeded then to carve or scoop out enough of the centre of the tumour to make a very sensible reduction. When dissecting at the surface next neck, I tried to find the state of the connection in that position. There was no isolation—merely the ordinary subcutaneous connection, rather more dense than usual.

The edges of the skin were brought together by sutures and plaister. As the lower half of the wound united only superficially, and a foul suppuration ensued in the deep cavity, which would scarcely be kept clean, I cut through the healed part in order to afford an easy escape to the putrid products, and thus to ensure the best measures for preventing purulent infection. Another precaution that I took against such an untoward event, was to remove the patient from his bed-room, which did not admit of ventilation, to a wholesome apartment. Beyond this there was no interruption to progress.

After what has been said, it is barely necessary to point out that the peculiarity in this case consisted in the total absence of any capsule to the fat—any special vestment, according to what is always seen in the true fatty tumour. There was an accumulation of diffused fat—merely a heaping up of it in an uncommon manner, the arrangement being merely a modification of what is common in certain parts of the body, especially on the belly of elderly persons ; so that such a state of things can hardly be called morbid, as there was nothing unnatural in any of the tissues, nor any very unnatural condition, but merely an alteration in form, constituting a curiosity, yet involving a condition which it is well the practical Surgeon should be aware of.

While the patient was being cleaned after the operation, I noticed a very large collection of fat over the triceps on each arm, but it was not stored up in the strict form of a tumour.

The facts of the stone case are quickly told. The little fellow was sent to me by Dr. Clarke, of Staines. He was eight years old, and the symptoms of stone had existed for five weeks, becoming very severe lately. A calculus was readily detected with the sound, and I operated immediately after the sounding—the ordinary lateral operation—and extracted it. The form was flattish oval; the measurements, an inch by half-an-inch ; the chemical composition, phosphate of lime. Recovery was so rapid that the boy was taken home from the Hospital on the thirteenth day after the operation quite well.

Just ten months before, this very patient was operated on, in King's College Hospital, by Mr. Bowman, and a much larger stone removed. After this occasion every symptom of bladder irritation was completely removed.

Recurrence of the disease is the chief point of interest ; that is, the return of it at so early a period of life. It might be supposed that a small stone was left behind at the first operation, and the possibility of the occurrence cannot be denied ; but it is very improbable ; and this is, I think, borne out by the perfect restoration of health after the first operation, and the chemical nature of the stone. I do not know what was the composition of the first calculus.

69, Brook-street, Hanover-square, October 1.

PROFESSOR PETTENKOFER'S RESEARCHES ON RESPIRATION AND THE CHEMISTRY OF LIFE.

(Continued from page 545.)

2. *Water.*—For controlling the experiments on the elimination of water, spirits of wine of known composition were burned in the apparatus, and, moreover, water, which was heated by a small spirit-lamp, was caused to evaporate. An examination of the amount of water in the air which entered and which left, gave the increase of water by combustion and evaporation, just as was the case with carbonic acid, provided that no water was condensed in the chamber, and that the water might be so completely withdrawn from the air that was to be examined, that the difference could be shown with the necessary amount of exactness. It is, therefore, required that the air which enters the apparatus should not be so much saturated with water as to cause the precipitation of the additional quantity of vapour generated by respiration and perspiration, which would at once be shown by the windows of the chamber becoming covered with moisture. This condition may be easily fulfilled at all seasons ; or we might use the absorbing substances which M. Henneberg has proposed placing in the chamber, and weighing before and after the experiment. It is likewise necessary that there should not be any hygroscopic substances in the chamber which absorb or exhale water, and could not be weighed before or after the experiment. The wooden floor which covers the iron bottom of the chamber, caused at first considerable faults ; to avoid which it was saturated with linseed oil, varnished, and covered with oil-cloth. If there is a considerable evaporation of water, even the cover of oil on the sheet-iron in the interior of the chamber, is somewhat hygroscopic ; but under the most unfavourable circumstances the fault amounts only to 1½ per cent. for an experiment protracted over twenty-four hours. If the experiment lasts a shorter time, the fault would become larger, but it might be found out by experiments of control, and thus be taken in account.

The following experiments may serve to show the degree of accordance between the experiments and calculations in determining the amount of water, and also the influence of the hygroscopic condition of the chamber.

I. February 17, 1862.

Within eight hours, there were burned 122·9 grammes of spirits of wine, (108·1 of alcohol and 14·8 of water), and there evaporated from a vessel placed over a flame, 398·3 grs. of water, the total amount being 540 grammes of water.

1000 litres of the air that entered contained 5·1351 grs. of HO.
,, ,, ,, left contained . . 7·8356 ,, ,,

The air that had passed amounted to 174,426 litres, the mean temperature being 16° C.

In the current there were found . 471·0
In the chamber there remained . 34·8

505·8 grammes of water.

If this fault of 6·4 per cent. be considered as a consequence of a condensation of water, it must continually become smaller the longer the experiment lasts, and it would be 4·3 per cent. after twelve, and only 2·2 per cent. after twenty-four hours.

In order to ascertain whether this supposition was correct, two other experiments of control were made, the one lasting twelve, and the other twenty-four hours.

II. February 19, 1862.

In twelve hours there were burned 181·8 grammes of spirits of wine (= 159·9 alcohol, and 21·9 water), and there evaporated 546·5 grammes of water, the total amount being 756·1 grammes of water.

1000 litres of the air that entered contained 5·6077 grs. of HO.
" " " left contained . 8·2402 " "

The temperature was 16°5 C. The air that had passed amounted to 264,519 litres.

There were found in the current 696·3 grammes of HO.
There remained in the chamber . 33·1 " "

Fault, 3·6 per cent. minus. 729·4 " "

III. February 21, 1862.

Within 24 hours there were burned 250·4 spirits of wine (=220·3 alcohol, and 30·1 water), and there evaporated 1134·3 grammes of water, the total amount being 1423 grammes of water.

1000 litres of the air that entered contained 7·3847 grammes of HO, at 17° 9 C.; 1000 litres of the air that left contained 8·9456 grammes of HO, at 17° 9 C.

The air that had passed amounted to 536,402 litres.

There were found in the current 1373·7 grammes of HO.
There remained in the chamber . 32·0 " "

Fault, 1·5 per cent. minus. 1405·7 " "

From these experiments it is obvious that the accuracy of the determination of water increases with the duration of the experiment. In every experiment, nearly the same quantity of water is used up by the hygroscopic condition of the chamber: there were wanting in the first experiment, 34·2; in the second, 27; and in the third, 29 grammes. If less water had been carried into the air of the chamber, the walls would have absorbed less; for the hygroscopy of bodies increases and diminishes with the quantity of water contained in the air. If the amount of water in the air which enters from without is higher in summer, this fault likewise decreases, because at that time the covering of oil on the walls of the chamber is more in hygroscopic equilibrium with the air, that is already moist before the commencement of the experiment.

3. *Oxygen.*—Just as we ascertain during the combustion of organic bodies, with oxide of copper or chromate of lead, from the weight of the organic (combustible) substance, and the products of its combustion (carbonic acid, water, and, if it was nitrogenous, nitrogen), how much oxygen has been withdrawn from the oxide of copper during combustion; we may, in a perfectly analogous manner, find out how much oxygen enters the body of a man or animal, while carbonic acid and water are excreted. As it appears from the experiments of Bischoff and Voit, that there is no appreciable excretion of nitrogen by the skin and lungs, but that the whole of the nitrogen taken with the food is again eliminated by the urine and the fæces, we have, in respiration and perspiration, chiefly to do with carbonic acid and water, and at times with small quantities of hydrogen and pit-gas. The amount of these latter is determined by combustion, as mentioned above.

For showing what accuracy may be obtained by the search for oxygen, which is used up by a body subjected to combustion in the current of air of the apparatus, the following experiments of control with stearine candles may be adduced:—

I. March 28, 1862.

Within eight hours and fifty-five minutes, there were burned 95·9 grammes of stearine, which, according to elementary analysis, generate 269·1 carbonic acid, and 109·6 water, and should consume 280·6 oxygen from the air.

1000 litres of air that entered contained 0·6953 grains of CO^2 and 8·2056 HO; 1000 litres of air that left contained 1·9990 grammes of CO^2 and 8·6597 HO.

The air that had passed amounted to 197,072 litres, at a temperature of 15° 6 C. There were found in the current of air that remained in the chamber—

256·9 grammes of CO_2 and 89·5 grammes of HO.
16 5 " " 5·9 " "

273·4 " " 95·4 " "

The quantity of carbonic acid and water found (368·8) weighs 272·9 more than the burned stearine (95·9), which must be calculated as oxygen taken from the air. According to elementary analysis, 95·9 grammes of stearine require 280·6 grammes of oxygen for complete combustion. If the experiment had lasted for twenty-four hours, the accordance between it and the theory would, no doubt, have become even more striking.

II. April 25, 1862.

Within eight hours there were burned 93·7 grammes of stearine, which, according to elementary analysis, give 263·2 grammes of carbonic acid, and 106·5 of water, and consume 276·0 oxygen from the air.

1000 litres of the air that entered contained 0·6751 grammes of CO^2 and 7·7281 HO; 1000 litres of the air that left contained 3·8061 grammes of CO^2 and 9·0691 HO.

The air that had passed amounted to 70,091 litres, at a temperature of 17° 5 C. About the minimum ventilation allowed by the apparatus had been employed.

There were found in the current 219·5 grs. of CO^2_3 93·9 HO.
There remained in the chamber 45·2 " " 16·5 "

264·7 " " 110·4 "

The carbonic acid and water found weigh, therefore, 281·4 grains more than the consumed stearine, and which has to be calculated as oxygen used for combustion. According to elementary analysis 93·7 grammes of stearine require 276·0 grammes of oxygen to be burnt. If the experiment had been continued for twenty-four hours, the accordance would have been still greater. This last experiment proved more exact than the preceding one, on account of the less considerable ventilation which was resorted to.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

COMPLICATIONS AND SEQUELÆ OF SCARLET FEVER.

We give this week several cases of the more unusual complications and sequelæ of scarlet fever. They show that the disease is serious, as regards the future of the patient, as well as immediately dangerous to life in the acute attack. First, are two cases of scarlet fever complicated with acute rheumatism, or a disease like it.

Dr. Richardson speaks of scarlet fever, as complicated with acute rheumatic fever. He states that Dr. Golding Bird was the first to draw attention to it in this country, and that, subsequently, Dr. Kelso, of Lisburn, and Dr. Ross have noticed the connexion.

A disease, called Dengue, or Scarlatina Rheumatica, is prevalent in certain parts of the East and West Indies, and in the southern parts of America, but is said by Dr. Aitken, in his work on "Practice of Medicine," not to be known in Great Britain. (See Dr. Richardson's "Clinical Essays"—article "Scarlet Fever," p. 85.)

Dr. Richardson says, that he once attended four children in one family for scarlet fever, and that in two of the cases well-marked symptoms of rheumatic fever set in on the second day of the eruption. In one, the endocardial membrane became affected. He writes—"I could not make out satisfactorily any proof of hereditary taint, as accounting for the rheumatic complication; but there it was, and there was the fact, in spite of any hypothesis to the contrary, that two diseases may exist in the same body at the same time."

We next give three cases, under the care of Dr. Hillier, of scarlet fever with endocardial murmur. The connexion of affections of the pericardium and endocardium with scarlet fever has been long recognised, but does not seem to be considered as a frequent cause of disease of the heart. It is not mentioned as such by standard authors on disease of the heart, as Walshe and Markham. Dr. West, in his work on "Diseases of Children," writes :—

"In two cases of pericarditis, in three of acute and one of chronic endocarditis, or in six out of thirty-nine instances, the disease of the heart was traced to an attack of scarlet fever. The cardiac symptoms did not manifest themselves in the acute stage of the affection, but during the progress of desquamation."

Dr. Fuller gives it as one in a long list of causes of non-rheumatic pericarditis. He writes ("Diseases of the Chest," p. 514):—"Non-rheumatic pericarditis may arise in connexion with constitutional disorders, or with local irritation excited by disease in contiguous organs. Amongst the former, the most frequent are diseases of the kidneys, pyæmia, scarlatina, variola, scurvy, cancer, pneumonia, pleurisy, and peritonitis," etc.

In a clinical lecture on some cases of scarlet fever (see this Journal, June 7, 1862), Dr. Hillier says:—"Is it not likely that disease of the heart, which cannot be traced to a congenital defect or to rheumatism, may not uncommonly owe its origin to a previous attack of scarlet fever?" In his remarks on the first case under his care in this series, he states that it is commoner than is supposed, and is often overlooked.

In reference to the connexion of the heart affection in scarlet fever when complicated with rheumatism, the following quotation from Dr. Watson will be interesting :—"I have several times, when the rash of scarlet fever was disappearing, known pain and swelling of the larger joints to supervene, simulating closely the local phenomena of sub-acute rheumatism; and I have noticed that the painful joints were eased and benefited by friction—a circumstance which may help to distinguish this articular affection from true rheumatism. Another distinctive circumstance seemed to be that, although all these patients were children, the heart in no instance became implicated in connexion with the tumid joints. Upon this point, however, my own experience may have been fallacious. Dr. Scott Alison has recently invited attention to the subject, in an interesting essay on 'Pericarditis a Complication and Sequela of Scarlatina.' Accepting his facts, I should ascribe the articular affection and the cardiac affection, whether they occurred together or separately, to one and the same cause, viz., to the retention in the blood of a poisonous excrement, by the default of the principal emunctories, and especially the kidney."

It will be seen that in one of the cases of scarlatina, complicated with rheumatism, the case under care of Dr. Budd, death ensued, and signs of pericarditis were found at the autopsy.

A Physician attached to a special Hospital for diseases of the chest, and also to a general Hospital, told the writer that heart complications were very common, indeed, in scarlet fever. Another, a Physician to one of our first metropolitan Hospitals, said that he had never seen heart disease as a complication or result of scarlet fever. As will be seen by the following quotation, Dr. Richardson believes that scarlet fever and rheumatism are produced by similar poisons.

Dr. Richardson (*op. cit.*, p. 100) writes :—"From certain experiments which I have made for the production of acute inflammation of the serous surfaces, from the existent analogies in symptoms between rheumatism and scarlet fever, and from the connexion which may exist between the two maladies in the same case, I am, I feel, not far from the truth in suggesting that the two diseases, acute rheumatism and scarlet fever, are produced by similar poisons, and that the poison in each case is an acid, having the physiological properties of lactic acid."

In one of the cases under the care of the writer, related in this report, there was actual disease of the joints. Probably the disease of the joints in this case was, at first, an affection of the same kind as that of the endocardium in the others. In some, especially in those of a strumous constitution, this may run into suppurative disease of the joints. It was not, however, ascertained that the patient had had symptoms of acute affection of the joints during the attack of scarlet fever, and, as stated in the notes of the case, she was not strumous. These cases show that, independent of its fatality, scarlet fever is to be feared for the damage it may do to even an originally healthy child.

There are many forms of cerebral disease which follow after the exanthemata, as amaurosis with atrophy of the optic nerve, etc., possibly due to tuberculosis, which so often follows these diseases, but more especially measles. Sometimes there is an interval of apparent health, but sometimes the diseases, *e.g.*, epilepsy, appear to begin during the acute stage of the exanthem, and to continue afterwards for many years, or for life. In a future number, we shall report several cases of this kind.

We do not give here any of the very common sequelæ, as renal dropsy and otorrhœa. The latter is of very great consequence, not only for the damage it does to the organ of hearing, but because the disease may extend to other parts, *e.g.*, to the petrous bone, and early or late lead to disease of the membranes, or even to abscess of the brain. Very often it is like a decayed tooth, a starting-point of severe neuralgia, and causes a good deal of minor misery in this way.

KING'S COLLEGE HOSPITAL.

SCARLET FEVER, COMPLICATED WITH ACUTE RHEUMATISM — PERICARDITIS — DEATH — AUTOPSY.

(Under the care of Dr. BUDD.)

For this and the following case, we are indebted to Dr. Tonge, late House Physician to this Hospital. The notes of the first are, unfortunately, imperfect, as no regular daily record was kept. Still, it shows the connexion of scarlet fever and rheumatism, and, as a result of one or both of these diseases, pericarditis.

Eliza N., aged 20, admitted into King's College Hospital, under Dr. Budd, with scarlet fever. She was taken ill a few days previous to admission, with shivering, sore throat, etc.; and shortly after this a rash appeared on the skin.

On admission, her tongue was dry and brown, rash fading, throat very sore, and cervical glands swollen and painful. She swallowed with very great difficulty. Pulse 130. She was ordered brandy and beef-tea, and a drink containing chlorine. The throat was swabbed with a solution of nitrate of silver. After a few days she complained of pain in the shoulders and wrists, which were found to be swollen and tender; and, shortly afterwards, one knee became affected. She was then ordered an alkaline mixture with opium.

A day or two after this she became somewhat delirious, and sank. Died on July 26.

The heart was examined before death in this case. Its action was very irregular and feeble, but the præcordial dulness was natural, and no abnormal sound was heard.

Autopsy.—Some recent lymph on the surface of the heart, and a few ounces of serous fluid in the pericardium.

CASE OF SCARLET FEVER COMPLICATED WITH ACUTE RHEUMATISM—RECOVERY.

(Under the care of Dr. LIONEL BEALE.

Mary L., a nurse in the Hospital, was admitted on October 11, under Dr. Beale's care, for scarlet-fever.

She had suffered from sore-throat for two days previous to admission, and on the night of October 10 first observed the rash on her arms and body. She had been lately exposed to the contagion of scarlet-fever, from nursing two patients with it in the ward. With the exception of an attack of pleurisy, a few months ago, she has generally had good health.

October 10.—Skin hot and dry, and covered with the rash of scarlet-fever; throat swollen, and very painful, so that she swallows with difficulty; left tonsil enlarged, and covered with a false membrane; submaxillary glands enlarged and tender; spits a large quantity of clear mucus; pulse 134; is very thirsty; tongue red and slightly coated; urine scanty and high coloured; specific gravity 1031; contains no albumen; bowels confined; wine ʒij.

℞ Liq. Ammon. acet. ʒij.; sp. ætheris chlor. ɱx.; tr. opii. ɱx.; aquæ, ʒjss.; 6 tis hôris. Garg. sodæ chlorinatæ.

14th.—Pulse 136; throat very sore. Ordered—Tr. ferri mur.; glycerinæ, āā ʒij., to be applied to the inflamed tonsil with a sponge.

15th.—Pulse 144; rash disappearing from limbs and face; throat better; tongue red. Complains of pain in the wrist-joints, which are somewhat swollen and tender to the touch; heart's sounds natural; wine, ʒiv.

℞ Potass. bicarb. ʒss.; tr. opii. ɱx.; sp. ætheris chlor. ɱx., 3 tis horis.

16th.—The rash has quite disappeared; wrists more swelled and painful; heart's action tumbling and unsteady, but no morbid sound can be heard; pulse 144; respirations 28; linseed poultice to be applied over the heart.

17th.—Complains of pain in both knees and both ankles, which are red and swollen; much effusion into knee-joints; wrists somewhat better; sweats very much; throat quite well; tongue red; pulse 144. Ordered—Emp. lyttæ 2 × 2 above each knee; and brandy ʒvj. instead of the wine.

18th.—Pulse 124; respirations 24; joints better; heart's action steadier; no morbid sound.

21st.—Pulse 108; respirations 22; wrist-joints slightly stiff and painful; sweats freely.

23rd.—Joints quite well; heart's sounds natural.

℞ Sp. ætheris chlor.; liq. cinchonæ, āā ɱx., ter die.

27th.—She is now convalescent from the rheumatism. The skin is beginning to desquamate. No albumen in the urine throughout.

HOSPITAL FOR SICK CHILDREN.

SCARLATINA—ENDOCARDIAL MURMURS—PERICARDIAL FRICTION SOUND—RECOVERY.

(Under the care of Dr. HILLIER.)

E. K., a healthy girl, aged 11 years, was seized, on September 30, with vomiting, followed by diarrhœa and great languor; complained about the same time of sore-throat.

October 1.—Admitted to the Hospital. Rash over entire body; throat sore; tongue furred, and papillæ prominent; fauces very red, not swollen; pulse 132; chlorate of potash mixture; beef-tea and milk.

2nd.—Passed a quiet night; conjunctivæ injected; tongue thickly coated with yellowish fur; no appetite; bowels relaxed; rash more out; glands at angle of jaw enlarged, but less than yesterday; those in groins now enlarged; pulse 124, regular; heart sounds normal.

3rd.—A restless night, with delirium; patient looks more oppressed; rash intense over whole surface, slightly inclined to a livid tint; tongue clean; papillæ very prominent and red; throat sorer than it was; pulse 136, weak; urine abundant, not albuminous.

4th.—Some delirium in night; much flushing of face and stupor; rash still very strongly marked; some miliary vesicles on chest; pulse 120; improved in strength; a slight cloud of albumen in urine.

5th.—Patient is more lively, and seems decidedly better; slept well and quietly; rash still present; tongue strawberry-like; throat still sore; pulse 120, weak; heart and lung sounds normal; a cloud of albumen in urine.

6th.—Still better; rash fading; pulse 108, very weak, regular; tongue dry; appetite better; no albumen in urine. ℞ Mist. quinæ, ʒij., ter die.

8th.—Greatly improved, cheerful; appetite good; tongue moist; papillæ prominent; desquamation beginning on forehead.

10th.—Seems better; desquamation general; pulse 76, irregular, almost intermitting; loud murmur at third left cartilage; about same at second right; fainter at second left; also a systolic murmur at apex.

11th.—Pulse 80, irregular; heart murmurs same as yesterday; no elevation of temperature in axilla.

12th.—Pulse 72, irregular; heart sounds the same.

14th.—Pulse 88, irregular. Systolic murmur still distinctly heard, of maximum intensity between left nipple and ensiform cartilage. At fourth left cartilage, murmur has a little rubbing character. There is also a systolic murmur at third left cartilage; less distinct at second left; scarcely audible at second right. A trace of albumen in urine. Temperature of axilla 99°·5 Fahr.

15th.—Pulse 80, irregular. To-and-fro friction now very distinct at fourth left cartilage. Temperature 100°·2. No pain or tenderness over heart.

16th.—Friction sound still distinct. No albumen.

17th.—Friction sound less audible.

19th.—Pulse less irregular; friction sound not to be heard. Pulse more regular in sitting than in lying posture.

From this time she steadily improved without any drawback, except the occurrence of earache and deafness, from October 27 to about November 6.

November 15.—No murmur audible with any of heart's sounds. Heart's action somewhat heaving, and impulse more forcible than is normal. Point of greatest impulse rather to outer side of left nipple, and one and a-half inch below. To be discharged.

Remarks by Dr. Hillier.—In this case, after a sharp attack of scarlatina anginosa, whilst the patient was apparently convalescing favourably, the pulse became very irregular, and, without any subjective symptoms of heart affection, there were physical signs of endocardial inflammation, and then of dry pericarditis. There may be room for doubt whether the basic murmurs were due to exudation on the valves, or merely to blood-changes allied to anæmia. The reason for doubting the latter explanation is, that there were no venous murmurs audible in the neck, such as are heard in anæmic persons. About the murmurs at the apex, and the to-and-fro sound at the fourth left cartilage, there can be no doubt that they were organic,—due to exudation on the pericardium, and probably also on the mitral valve. The occurrence of endocarditis during convalescence from scarlatina is much more common than is usually supposed. It is constantly overlooked in consequence of its ill-defined symptoms, and thus the foundation is laid for serious valvular lesions, with their results in after-life. In the way of treatment, keeping the patient in bed, applying a few leeches at first, and counter-irritation subsequently, with diaphoretics internally, appear to me to be indicated. This inflammation (as well as the pericarditis and pleurisy which also follow scarlatina) not unfrequently is due, probably, to the existence in the blood of some morbid material (probably allied to the *materies morbi* in rheumatism) which the skin and kidneys have failed to eliminate during the fever. If this patient had been allowed to get up, and had been exposed to cold, as she might have been, so far as her general symptoms were concerned, there is every reason to believe she would have had very severe pericarditis, endocarditis, and, perhaps, pleurisy of that serious character which often occurs and proves so rapidly fatal. The state of the heart at the time of her dismissal, proves that the changes going on were more serious than would have been judged from her general symptoms without a physical examination.

SCARLATINA, FOLLOWED BY SYSTOLIC MURMURS AT APEX AND BASE—NO ALBUMEN IN THE URINE—RECOVERY.

(Under the care of Dr. HILLIER.)

S. P., a tolerably healthy girl, aged 5½ years, was attacked, on September 12, with vomiting and headache, followed the next day by rash, and the ordinary symptoms of scarlatina. On the seventh day, that is, September 18, rash was gone; child seemed convalescent. On September 19 was not so well; fretful and heavy. Tongue clean; appetite good; no cough. Pulse 136, regular; a distinct, blowing, systolic murmur audible over point of heart's impulse; none at base of heart. Temperature in the morning 101°·4, in the afternoon 103°·8, at 7 p.m. 104°·4. Two leeches applied over the heart. ℞ Pot. bicarb. gr. x., in water, every three hours.

20th.—Passed a restless night. Is now flushed. Pulse 144, regular; respirations 34; temperature 103°. The murmur at apex is now inaudible; but there is a distinct murmur at third left cartilage, which is not heard at second cartilage on either side. Left side of neck swollen, and very painful when moved; none on right side.

21st.—Better. Still some swelling of the neck. Murmur still audible at base. Temperature 102°·4. From this time she gradually improved.

28th.—Murmurs quite inaudible. Pulse 84, regular.

October 2.—Pulse 88, weak, irregular. No murmur. Is recovering strength.

10th.—Discharged tolerably well, with no signs of heart affection.

Remarks by Dr. Hillier.—In this case, endocardial murmurs were heard coincidently with an exacerbation of symptoms and quasi-rheumatic pains in neck. The peculiar feature was the rapid disappearance of the abnormal sounds. Still, one can scarcely doubt their organic origin; it is scarcely credible that they were of dynamic or blood origin merely.

SCARLATINA ILL-DEFINED, FOLLOWED BY HÆMATURIA—ENDOCARDIAL MURMUR AT APEX ON THE TWENTY-FIRST DAY—AMYLOID DEGENERATION OF LIVER AND KIDNEYS.

(Under the care of Dr. HILLIER.)

A. S., a delicate little girl, aged 9 years, was under treatment for caries of the crest of the ilium, when, on March 26,

she was attacked by very ill-defined symptoms of scarlatina, the rash only remaining visible during one day, the throat being scarcely at all sore, and the temperature rising only on one day above 100°. No desquamation succeeded. She was kept in bed, and appeared to be going on well until the eighteenth day, when she was seized with sickness, and became drowsy, complaining much of headache. Face pale and puffy. Pulse 176, rather bounding. Very thirsty. Urine, which had been, ever since the rash, very slightly albuminous, became for two days entirely free from albumen. Her temperature now rose to 105°.

On the next day she looked better. Pulse 116, very weak. Temperature 100°. Last night began to complain of pain in her foot; there is now a deep red blush over the inner and outer malleolus, and the joint is very tender. Bowels relaxed. Urine to-day smoky and albuminous.

Twentieth day.—Child is better. Pulse 132, weak. Redness over ankle increased. Tenderness less. Urine less smoky, but albuminous.

Twenty-first day.—Swelling extending from the ankle up the leg. Pulse 108. First sound of heart, accompanied by a slight murmur at apex.

Twenty-fifth day.—There is evidently matter forming over the outer ankle. This morning was seized with vomiting and diarrhœa. Soft murmur more distinct, with first sound at apex of heart. Urine still albuminous.

Thirtieth day.—Murmur as before. The abscess over the ankle has been opened, and inflammation is now subsiding.

The murmur had quite disappeared a fortnight later.

This little girl gradually sank, and died at the end of fourteen months, worn out with suppuration from the ilium, repeated attacks of diarrhœa, and melæna. The liver and kidneys were found much enlarged, from amyloid or waxy degeneration; the ilium was carious. The heart appeared healthy on post-mortem examination.

This case would seem more nearly allied to pyæmia than rheumatism; the heart signs are, however, analogous to those observed in the preceding case, leaving no subsequent traces.

METROPOLITAN FREE HOSPITAL.

SEQUELÆ OF SCARLET FEVER.

(Cases under the care of Dr. HUGHLINGS JACKSON.)

Rose P., aged 7½, admitted for hemiplegia, Eliza P., aged 5½, for ulceration and disease of joints, and another child, a boy, about 7 years of age, for anasarca. When Dr. Jackson saw these patients, they had recovered from scarlet fever about seven weeks. They were all the children in one family, and had been very healthy before.

Case 1.—*Hemiplegia following Scarlet Fever.*

Rose suffered severely from the fever, her throat being very bad. About a fortnight before admission she vomited, it was said, about a pint of blood. It all came up in a few minutes. Next day it was found that she could not move the right arm and leg, and that her face was drawn to the left side. It was said, too, that for two or three days there was no sensation in this side, severe pinching not being felt. The urine had been examined by Mr. Marsh, under whose care the patient then was, and was not albuminous. When Dr. Jackson saw her she could walk, but dragged the leg, also circumducting it. There was then very little distortion of the face. In rest the face was drawn to the left, but when she smiled the paralysed side moved well. The paralysed arm and leg were much colder than the other side, and the face was also supposed to be a little colder on that side. She was slightly deaf on the side opposite to the paralysis, and had, now and then, discharge from it. This, however, was so before she had scarlet fever. There was no defect of sight. She had been very quick and intelligent, but her memory had failed very much since the hemiplegia, and she looked silly and vacant. Her general vigour was good. She took her food well and slept well. Tonics were given, but she did not improve. Her mind grew worse, and the muscles of the arm became rigid.

In all cases of paralysis, especially hemiplegia, the heart and great vessels ought to be examined, as it is well known that clots, vegetation, etc., may pass into the cerebral vessels, and thus cause disease, so that the first link in the chain is disease of the heart, and not disease of the brain mass. Speaking from memory, Dr. Jackson believes there was no cardiac disease found on examination; but, unfortunately, the notes of this examination have been lost. The case thus loses much of its value. Possibly, she may have had endocarditis, and some vegetation may have been detached from the valves of the heart, and have plugged the middle cerebral artery,—the artery most commonly obstructed.

The fact, that the face was moved well on the paralysed side on smiling, is worthy of note. In hemiplegia, as commonly met with, very few of the muscles of the face are paralysed; and, after a little while, there is very little distortion; in fact, only the zygomatici seem to be impaired. Romberg cites a case in which a patient had no voluntary power over the muscles of the face whatever, and yet smiled and laughed, under the influence of emotion. He gives, also, the converse of the case. A patient had perfect control over the muscles of the face on both sides, and yet the right side "continued expressionless on emotion, and showed no increased action in accelerated respiration after running, going upstairs, etc." (a). So in the case of Rose P.; the muscles of the face, which were not under the control of the will, were still influenced by emotion.

Case 2.—*Disease of Joints, following Scarlet Fever.*

Eliz. P. had scarlet fever at the same time as her sister, and, when Dr. Jackson saw her, she had suppurative disease of the left ankle and of the ungual joint of the second finger of one hand. There were also several abscesses in various places:—one in the submaxillary region, one at the sterno-clavicular articulation, and one under the knee, which joint was stiff. All the above, except an ulcer on the left buttock, were on the right side. This child was well-developed, and intelligent; not at all strumous-looking. There was no albumen in the urine. Under treatment by tonics, iodides, and cod-liver oil, all the ulcerations and sinuses healed up, except one at the ankle. This joint was stiff, as if anchylosed.

Case 3.—*Albuminuria after Scarlet Fever.*

The third patient had albumen in his urine and anasarca. He did well so long as he was under observation. Dr. Jackson only saw these patients twice, at an interval of several weeks.

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Medical Times and Gazette.

SATURDAY, NOVEMBER 29.

THE LAST EFFECT OF THE POISON PANIC.

A case of suspected poisoning has lately been made the subject of public investigation, which demands the serious consideration of the Medical Profession. We have no hesitation in saying that, if such inquiries, based, as this one was, on no tangible evidence, founded on assumptions directly in contravention to the canons of scientific experience, be permitted and encouraged, no person is safe. Sooner or later the evil will recoil on the Medical Profession itself, and we shall have the spectacle of Medical men dragged through the disgrace and degradation of public suspicion and obloquy. It is a duty we owe to our readers to recount the facts, and we, therefore, set ourselves to the disagreeable task.

The deceased person was the wife of a wheelwright, named

(a) Romberg on the "Nervous Diseases of Man." Translated by Dr. Sieveking, p. 277, vol. ii.

Kiddle, living in the hamlet of Ludwell, Wiltshire. According to the evidence of her husband she had been in delicate health for eight or nine years, and was always obliged to eat solid food in small pieces. For years also she had suffered from piles. In the month of July last, about three months before her death, she began to suffer from vomiting. On the 28th of that month, she went to stay with a friend in Salisbury. At that time she was in a very nervous, depressed state. She suffered from sickness after every meal. On August 2, she consulted Dr. Roberts, the Physician to the Salisbury Infirmary. The following is Dr. Roberts' account of her condition at this time:—"She stated that she had been out of health for a long time, and that, latterly, her symptoms had been very distressing. The symptoms were sickness and pain almost immediately after taking food. She was rapidly wasting, and had all the appearance of a person suffering from serious organic disease. After a very careful examination, I came to the conclusion that the disease was an internal cancer, and, of course, I considered her case a hopeless one. I ordered her a medicine, which gave temporary relief—a medicine called bismuth, and which contains small quantities of arsenic. I told her to call again in a week. On her next visit she said she was rather better, but the pain was only mitigated. I felt certain her improvement would be of a short duration." Shortly afterwards she returned home; her sickness and vomiting continued, and she consulted Dr. R. C. Shettle, of Cann-street, Rumbold, who formed an opinion that she was suffering from chronic inflammation of the stomach. Finding, shortly afterwards, that the remedies he prescribed failed to alleviate the symptoms, Dr. Shettle concluded that the disease was complicated with cancer. Apparently, the same reason led him in a few days again to change his opinion; he then conceived the idea of irritant poisoning, and desired that another Practitioner should be called in. Dr. Roberts accordingly met Dr. Shettle in consultation. The latter mentioned his suspicions, but they were by no means shared by Dr. Roberts. We again quote from that gentleman's evidence. The meeting took place on October 14. "Her appearance was that of a person dying slowly of starvation, caused by a cancerous disease. I examined the whole of the abdomen. She was so reduced that the spinal column was visible on the surface of the abdomen—the contents of the abdominal cavity being wasted away. Neither Dr. Shettle nor myself could detect a single tender spot on the abdomen, on making deep pressure over the stomach and intestines. After the examination I gave it as my opinion that she was dying of a malignant disease, and that no Medical treatment would avail her. Dr. Shettle suggested that she was suffering from the effects of an irritant poison. This surprised me. I said, 'I see no reason to suspect anything of the sort,' for I considered that the whole history of her long illness, obtained from herself, and all her symptoms, were entirely in accordance with cancerous disease, and were quite inconsistent with the effects of an irritant poison." Dr. Shettle confesses himself to have been a little shaken in his opinion by Dr. Roberts' strongly-expressed conviction; but he soon abandoned himself to his suspicion, on the ground, that the condition of the patient continued unrelieved, and because of "the absence of symptoms that usually attend organic diseases approaching a crisis—the peculiar glassy appearance of the eye and yellow appearance of the skin." The strength of his preconceived suspicion must have given force to these reasons, for it is scarcely necessary to observe, that these appearances are neither constant nor pathognomonic. However, death took place on October 22, and, in Dr. Shettle's opinion, it was caused by irritation of the stomach and bowels from poison. He believed that the cancer which the post-mortem revealed had nothing to do with it—that "it might modify the symptoms, but would affect the death but little." Before proceeding further, we would simply call attention to the entire absence of purging, tenesmus, tenderness, and, in fact, of all symptoms of inflammation of the alimentary canal—of inflammation of the conjunctivæ, of skin affection, and of any disturbance of the nervous system. The main symptoms were vomiting and pain after eating. Scarcely anything was retained by the stomach for a period of three months. During the last week of life the sickness abated. Ulceration and aphthæ also made their appearance on the mouth and gums during the few days which preceded death.

The treatment comprised the administration of nitrate of silver, mercurial preparations, and trisnitrate of bismuth. The latter was given both by Dr. Roberts and by Dr. Shettle, and we are informed that she took large quantities of bismuth, supplied by country druggists. Dr. Shettle gave half a drachm per diem for eight days.

Such was the Medical history up to the time of death. We now proceed to the post-mortem examination. The examination was made by Dr. Shettle and his assistant forty hours after death. Dr. Shettle deposed that a scirrhous tumour, the size of a small walnut, was found encircling the lower part of the œsophagus, about an inch from the entrance of the stomach. There was no dilatation of the tube, or, at all events, very little, above the tumour. There was intense inflammation of the small intestines and omentum, and also of the stomach. The vessels of the intestines were very much *injected*. The stomach presented the same appearance towards the pyloric end. The malignant disease was in a hard, cartilaginous state. The heart, pericardium, lungs, liver, kidneys, pancreas, and spleen, were healthy. The skin had a yellow tinge. The stomach, intestines, and liver, were sent to Dr. Herapath for analysis. In reference to their appearance, Dr. Herapath notices the appearance of intense inflammation of the mucous membrane; but states that it was most marked in the cœcum. He also mentions the important fact, that in the duodenum there was a small patch, about the size of a finger-nail, or rather larger, which seemed to be the result of cancerous deposit. The remainder of the organs, viz., the brain, lungs, œsophagus, spleen, pancreas, rectum, and two kidneys, were sent to Dr. Harley, of University College. His remarks on their appearances show that they were all in the first stage of decomposition, and that they were all more or less congested, especially the brain, kidneys, and rectum. The rectum, he said, was congested throughout its whole extent, and particularly so towards its lower end, where the blood-vessels were so engorged and enlarged, that they rendered this portion of the gut of a livid blackness. This highly congested state extended upwards to about two inches and a-half from the orifice. We have only to add, that two large gall-stones occupied the gall-bladder.

In reading these post-mortem appearances, the first thing that strikes us is that none of the witnesses defined what they meant by inflammation. Dr. Shettle, indeed, stated that the vessels of the intestines were very much injected. If we are to assume that injection of the vessels and consequent redness were the main appearances, it is evident, taking into consideration the absence of all pain on pressure, purging, and tenesmus during life, that the redness was not inflammatory. Could inflammation of the omentum exist without pain on pressure? We should like to have been informed how the mucous membrane was examined; whether the mesenteric veins supplying the parts were, or were not, distended; whether the great abdominal veins were obstructed at the time of death; whether the reddened membrane was covered by much mucus, and whether it was thick, tenacious, and adhering; whether the mucous membrane, when dissected off, was opaque, and whether the sub-mucous cellular tissue was brittle—so that the membrane could be easily scratched off by the nail; in fact, whether all the tests which Billard, Yellowly, and others, have applied, were used to clear up the point. For our own part, we think, judging from the evidence,

that the appearances arose from post-mortem change. We believe that the position held by Andral, Yellowly, and others, is incontrovertible: "That the fact of inflammation having existed previously to death, cannot be inferred merely from the aspect of the vessels of a dead part—there must at least have been symptoms during life." But, assuming that the redness was produced whilst the patient was alive, we think there was ample cause for most extensive congestion in the constant vomiting and consequent death from starvation. The fact, that nearly the whole of the tract was reddened, goes far to prove that it was not the effect of any irritant having a local action. Redness in the immediate neighbourhood of the scirrhous tumour, and the cancerous patch in the duodenum, would be only what experience warrants us in expecting. The congestion of the organs, with the exception of the rectum, deposed to by Dr. Harley, is directly contravened by the evidence of Dr. Shettle, who declared that they were healthy. It was, no doubt, the result of post-mortem change, putrefactive infiltration of blood, and incipient decomposition. The condition of the rectum is accounted for partly by the hæmorrhoids, from which the deceased had suffered for many years, and which, it may be supposed, were irritated by the frequent injection of nourishing enemata, and partly by its dependant position in the pelvis and post-mortem change. It is well-known that the pelvic viscera always exhibit the greatest amount of coloration from gravitation and transudation.

The chemical evidence of Dr. Herapath proved, as might have been expected, considering the treatment which had been adopted, the presence of various metals in the liver, stomach, and bile. Dr. Herapath deposed to bismuth, arsenic, silver, copper, and antimony. The metals were obtained as sulphides. He deposed to $\frac{81}{100}$ parts of a grain of arsenic. As we do not know the exact steps of the processes employed, they must pass without criticism. It is evident, however, from his evidence, that he was under the impression that the metals had been introduced into the system in conjunction with each other. He says, "I suggested to Dr. Shettle the possibility of his drugs having contained poison, and requested that he should send me samples of all the drugs he had used." The analysis of these drugs was negative; but we should be glad to learn the quantity of Dr. Shettle's bismuth which was subjected to analysis, the mode in which it was examined, and whether different samples of the same specimen were made the subject of different analyses. Experience has shown that arsenic exists in almost every specimen of bismuth in the market, and that it is not necessarily equally diffused throughout the mass. A few grains may yield no results, whilst by examining half-an-ounce a comparatively large quantity may be obtained. The bismuth prescribed by Dr. Roberts was not examined at all. We assert, on the strongest grounds, that the discovery of a small quantity of arsenic in the viscera of a patient who has been dosed with bismuth for any length of time, especially if bismuth also is found, is no evidence of poisoning whatever. Traces of copper and antimony are equally accounted for as ordinary impurities of drugs. We may add, Dr. Herapath deposed to the arsenical character of the paper of the kitchen and parlour in which the deceased lived.

The chemical evidence given by Dr. Harley appears to us absolutely valueless. Grey metallic films in insufficient quantity to allow their nature to be ascertained, yellow precipitates, with sulphuretted hydrogen, which, when prepared, give no results with Marsh's process, are simply not tangible entities. "High probability" of the presence of arsenic, and "possibility" of the presence of antimony, mean nothing at all when examined as chemical facts. Nevertheless, this gentleman thought it necessary to supplement the negative results of his analysis by boldly asserting, that the presence of the tumour was insufficient to account for death, that the state of the rectum could only have been produced by some irritant, and that the post-mortem appearances were clearly indicative of arsenic!

We have hitherto reviewed the details of this case from a negative point of view. We have shown that its history and the symptoms presented during life were *not* those of poisoning, and were entirely irreconcilable with the poisoning hypothesis; whilst neither the pathological appearances, nor the chemical examination, taken together with the history, offered any valid proof of any poison having been feloniously administered. We now advance a step farther, and assert the conclusion at which any unprejudiced person whose education has fitted him to form a judgment, must have arrived—that death was caused by slow starvation, dependant on constant vomiting, produced and kept up by the cancerous tumour existing on the cardiac extremity of the œsophagus. The very fact, that the vomiting and distress arose *immediately after* taking food or medicine, was diagnostic of the position of the malignant growth, involving, as it must have done, the course of the pneumogastric nerves. The disease was diagnosed, and its fatal termination foreseen, by Dr. Roberts, between two and three months before death. The post-mortem confirmed the accuracy of his opinion, and, we have no hesitation in saying, should have terminated the inquiry. The "inflammation," redness, and injection observed, if not post-mortem changes, were undoubtedly consistent with death from slow starvation. We need only refer to Andral, amongst other authorities, and his observations on the pathological changes arising from death by inanition, in support of the assertion. He found in the bodies of animals killed by starvation, "alterations of the stomach of the most decidedly inflammatory nature; such as lively redness, softening, and numerous ulcerations of the mucous membrane."

We have thought the circumstances of this case of such grave importance, that we have not been content to form our opinion on mere newspaper reports. Information received from a private source enables us to state a fact which is at once incontrovertible and decisive. The bowels were most obstinate, *and never acted more than once a-week.* Is this reconcilable with poisoning by arsenic or any other irritant?

But we must now refer to details which are not purely Medical, and this leads us to the saddest and most deplorable part of the story. A poor widowed lady, a Mrs. Trowbridge, the daughter of a Surgeon, who supported herself by keeping a day and boarding school for young children, has been, on an affidavit made by Dr. Shettle before a justice of the peace, taken into custody, on suspicion of murder, confined, and, although now at liberty, is, we are informed, utterly ruined. Her crime was that she attended on Mrs. Kiddle, with whom she was on terms of intimacy, with sisterly affection; that she prepared delicacies and various articles of nourishment for her; that she supplied her with wine, and in every way acted the part of the Good Samaritan. More than one witness deposed to her benevolent character, and spoke of her constant kindness to the sick and needy in the village. A correspondent informs us, that "all her spare time was devoted to the sick poor, and she attended to them with an amount of devotion and self-sacrifice that is rarely met with. Her kindly acts have met with a cruel return, for she is utterly ruined." Yet on suspicion, founded on an entirely mistaken diagnosis, this poor lady, who literally went about doing good, is accused and imprisoned, and her deeds of mercy turned into witnesses against her. She is subjected to all the obloquy of a public examination on the blackest charge, which, however triumphantly rebutted, is never forgotten, and, when once made, is never entirely discredited. Truly, if this be one of the triumphs of the vigilance created by the inaugurators of the present poison panic, we neither envy them their success, nor the reflections it will hereafter bring.

We have left ourselves no space to comment on the irregularity of Dr. Shettle's proceeding, in applying to the

magistrate, before giving information to the coroner. Had he followed another course, it is probable that Mrs. Trowbridge would never have been taken into custody. We do not blame either magistrates or coroner for the view they took of the case. They were hoodwinked and misled by the confident tone and uncompromising assertions of Dr. Shettle and the Professional experts. The fact, however, that the magistrates refused to examine Dr. Roberts, on the ground that "they were of opinion that it would be more courteous to Dr. Roberts not to examine him, because, if they did so, and felt obliged afterwards to decide against him, it might not be very pleasing to his feelings," conveys an appreciation of the nature of evidence, and its use and intent in an English court of law, which we were not prepared to encounter, even amongst the county magistrates of Wiltshire. Fortunately, the coroner's court is an arena in which the feelings of witnesses are not consulted when liberty and life are at stake, and Dr. Roberts had there an opportunity of asserting truth, and of thereby defending innocence. It was in the coroner's court that Dr. Roberts had the opportunity of asking Dr. Harley the simple question—If acute inflammation had existed, occasioned by irritant poison, would there not have been evidences during life?—and, after some hesitation on Dr. Harley's part, to extract from him the admission that symptoms would have been present. Yet the evidence previously given by Dr. Shettle, by Dr. Herapath, by Dr. Harley, and by Mr. Cardell, of Salisbury, who deposed to an examination of the œsophageal tumour, left the coroner's jury no alternative but to return a verdict that the deceased, Ann Kiddle, died from the effects of irritant poison—the total absence of real evidence against Mrs. Trowbridge obliging them to add, "but by whom it was administered there was no evidence to show."

After having been kept in custody during the interval between a first and second examination before the magistrates, Mrs. Trowbridge has been remanded, but liberated on her own recognizances. In the meantime, the contents of two bottles found in her house, labelled "poison," are to be analysed.

In conclusion, we may safely assert, that the visionary character of the suspicions entertained, the recklessness with which they were urged, the unfounded inferences drawn in face of the clearest pathological evidence, and the cruel injustice to an unoffending woman, which are the leading features of this miserable history, form a group of circumstances seldom paralleled. Medical Jurisprudence furnishes by no means the most creditable chapter in the history of British Medicine. Still, we may thank Heaven it has not many such pages as that we have now examined.

MEDICAL EDUCATION IN GLASGOW.

(*From a Correspondent.*)

(Concluded from page 550.)

II. THE ANDERSONIAN UNIVERSITY.

This popular institution is situated, like its venerable senior, in the centre of the city, near to the Royal Infirmary, and Midwifery, Eye, and Lock Hospitals. It is flocked to by English and Irish students. Classes on all the branches of education required for a Medical or Surgical diploma are taught by able lecturers. The fees are £1 1s. less for each class than those of the University. Students of this School, after the completion of their studies, may take a Physician's or Surgeon's diploma where they list. A large portion of them, however, take the licence of the Faculty of Physicians and Surgeons, Glasgow, either for the diploma of Surgeon (£10), or for the double diploma of Physician and Surgeon (£16) granted by the Glasgow Faculty and the Edinburgh College of Physicians conjointly. The Andersonian Medical School, it should be remarked, possesses an excellent library and museum, and its students have free admission to the Botanic Gardens. It is with much pleasure that we notice at this place an institution which each Medical School possesses, viz., a Students' Medical Society. Lecturing by Professors is not everything; and unless students think for themselves, and bring their opinions into comparison—it may be, collision—with those of their companions, they can be viewed only as *receptacula*, into which a quantity of information is poured daily. In the preparation of essays, and criticisms thereon, in the society, English composition and public speaking, two of the most important educational forces in the present era, are engaged in and promoted.

Less is said about the "Andersonian" than of our Alma Mater in the foregoing remarks, but our respect for it is not inferior. The pupil enjoying the educational advantages of either School, with those of the Hospitals to be mentioned, has opportunities of studying Medicine equal to those of any other city. Let a student come to Glasgow, determined, in the words of the Scotch saying, "to set a stout heart to a stey brae," and we predict that, in a few years, he will leave it an accomplished Medical man. His motto should be—*Excelsior!*

"Deeper, deeper let us toil
In the mines of knowledge;
Nature's wealth, and learning's spoil,
Win from School and College.
Delve we there for richer gems
Than the stars of diadems."

III. THE HOSPITALS.

Foremost among the institutions for the practical study of disease, is the Royal Infirmary. This Hospital, on account of the recent elegant addition, contains beds for 600 Medical and Surgical cases. The hour of visit is 8½ a.m. In addition to the instruction given at the bedside, lectures on the Surgical cases are delivered on Tuesdays and Fridays, and on Medical cases, Mondays and Thursdays. The lecturing hour is from 9 to 10, morning. These lectures qualify for the Examining Boards. Additional lectures are afforded, during the session, on Pathological Anatomy; and all operations, which are numerous, and post-mortem examinations, are performed in presence of the students. Two hours every Saturday might be profitably spent in the Pathological Museum of the Infirmary, which contains many interesting preparations. Each Surgical ward has two Dressers, who are appointed, without fee, for three months at a time; and to perform the duties of House-Physicans and Surgeons, there are four Physicians' Assistants and four Surgeons' Assistants. This office, held usually for two years, is open to students of the third year. They are boarded in the Hospital for £20 per annum each. The Dispensary of the Infirmary, open daily at two o'clock, is one of the best training schools that the student can attend. During last year, 10,273 Medical and Surgical cases of out-patients were treated, and the number of children vaccinated is close upon 1000 annually. The fees of the Royal Infirmary contrast favourably with the high charges of similar institutions. A perpetual ticket costs £10 10s., inclusive of all the lectures. The receipts from students last year were £992.

The Lying-in Hospital, Rotten-row, contains upwards of twenty beds for in-patients. About 350 are delivered annually in the house, and the same number are attended at their own homes by students who fee the Hospital. Fee for six months' attendance, £1 1s.

University Lying-in Hospital and Dispensary. — The students of this Hospital also attend poor women at their own homes, and may witness the practice of the Dispensary, which is open daily at 1 p.m., when advice is given on the diseases of females and children, and the children of the poor are vaccinated.

The Eye Infirmary, Charlotte-street, contains twenty-four beds for in-patients, and, like the Royal Infirmary, attracts people from a great distance. The Dispensary in connexion with it is open daily at 1 o'clock, having about 3000 patients annually. The fee for six months' attendance at this Infirmary

is £2 2s. To students who have attended, or are attending, the Eye Lectures delivered in the University, only £1 1s. is charged. By the regulations of the Faculty of Physicians and Surgeons of Glasgow, a three months' course of Lectures on the Eye, with six months' attendance on an Eye Hospital, containing at least twelve beds for operation cases, is considered equivalent to three months' attendance on a general Hospital.

The Lock Hospital for females, situated in Rotten-row, and adjoining the Royal Infirmary, presents abundant opportunities for special study. The annual average number of patients nightly in the Hospital is 33.

The Dispensary for Skin Diseases, recently opened in John-street, near the centres of Medical education, and the Royal Lunatic Asylum at Gartnavel, in the suburbs of the city, may be taken advantage of by gentlemen desirous of increasing their knowledge in these important departments of Medicine.

IV. GLASGOW AS A HABITATION FOR STUDENTS.

The social aspect of this city will be a matter of interest to gentlemen who intend to spend the greater part of four years within its limits. Inferior, as far as Medical education is concerned, to no city in the empire, we believe it to be superior to some as respects the economy of living and social "surroundings." Glasgow landladies, as our experience went, are always civil and obliging. A student, desirous of a room for himself, may be accommodated for 5s. or 6s. a week, in addition to his commissariat requirements, a note of the expense of which is usually presented fortnightly. Students commonly live in pairs, and engage a sitting-room and bedroom for from 8s. to 11s. per week. The favourite *habitats* of Medical students are Albion-street and George-street, and the short streets leading from the latter. On a Saturday in winter, the student fond of skating will find plenty of ice in the vicinity of Glasgow; and during his summer residence may transport himself in a few minutes to the green fields of the country, or, for a sixpenny steam-boat fare, to the lochs and scenery of the far-famed Frith of Clyde. And on Sundays he may, with great advantage to his mental and bodily health, preface the Medical lectures of the week with the sermons on still more exalted subjects, delivered by talented clergymen, in whom, at the present time, Glasgow is very abundant.

THE WEEK.

PROFESSOR OWEN'S LECTURES ON REPTILES.

PROFESSOR OWEN'S lecture, on Monday evening last, commenced with a recapitulation of the principal topics treated on in his previous lecture, connected with the comparative anatomy of *Crocodilia*, *Lacertilia*, *Ophidia*, *Chelonia*, and *Batrachia*. Since the time when the Nilotic crocodile was the only species known, we had received an enormous accession to our knowledge of the geographical distribution of crocodiles, concomitant with further geological information as to their range in time. The first occurrence of procœlian crocodiles (in which the cup was on the fore end, and the ball on the hind end of the vertebræ), of which Professor Owen is aware, is in the greensand strata of North America. A ghârrial is also found in the upper cretaceous strata. In the plastic clay of Meudon, near Paris, are three species of true crocodiles; and two other species are found in the superjacent "*calcaire grossier*" of France. In the London clay stratum, as exemplified by the Sheppey deposits, are two other forms of true crocodile. In the deposits from Bracklesham, a form occurs, nearer to the ghârrial, but still a true crocodile (*C. Dixoni*); whilst in the Hordwell strata, a species is found (*C. Hastingsiæ*) with much shorter and broader jaws, in company with a true alligator. All the above were true procœlian crocodiles, of which the vertebral characters did not essentially differ from the *Crocodilia* which now exist. On the other hand, there were numerous species which closely resemble, in their cranial characters, the existing ghârrials which peopled the oceans of Europe through the mesozoic ages. In the length, the slenderness, the acuteness of their teeth, all arranged on one level plane, the jaws of these crocodiles were adapted for the prehension of fish, as in the existing ghârrial of the Ganges; they, however, differed from that species in having the vertebræ biconcave, or amphicœlian. In 1758, Mr. Chapman, a member of the Society of Friends, contributed an account of the fossil ghârrial, now called *Teleosaurus Chapmanni*, which had been then discovered in the marine liassic strata from Whitby; and his memoir in the *Philosophical Transactions* is still considered as an accurate statement of the affinities between *Teleosaurus* and the existing ghârrials. The teeth of *Goniopholis*, from the deposits of Purbeck age, in the Bay of Swanage, were contrasted in detail with those of *Suchosaurus*, the almost circular horizontal section of the teeth of the Swanage crocodile being contrasted with the compressed elliptical section of the more trenchant tooth of its congener. The amphicœlian *Crocodilia* of the mesozoic period differed from the existing forms, in having the anterior limbs much shorter in proportion, and the hinder longer, than in those of the present day. They were always to be found in marine strata, as proved by the associated crustacean fossils, never in river, lacustrine, or estuary deposits. Whilst the true crocodiles, with their powerful jaws and carnivorous teeth, adapted to devour the mammalia of the eocene, flourished during the period that that higher class attained its plenitude of development, the commensurate culminance of the ichthyic class, during the long mesozoic ages, was coincident with the existence of these large amphicœlian piscivorous *Crocodilia*. The beautiful contrivance of the crocodile's palate, enabling it to plunge beneath the water, and, by a prolonged retention of the struggling prey under the flood, suffocate the victim, was noticed, as well as the manifold distribution of mesozoic *Crocodilia* under many genera—*e. g. Teleosaurus*, *Steneosaurus*, *Mystriosaurus*, *Dakosaurus*, *Macrospondylus*, *Massospondylus*, *Pœcilopleuron*, *Pelagosaurus*, *Ælodon*, *Suchosaurus*, *Goniopholis*, etc. The opisthocœlian form of crocodiles, in which the ball was on the anterior, and the cup on the posterior end, was next noticed, represented by the gigantic *Cetiosauri* and *Streptospondyli* of the upper oolite and Wealden. Proceeding to the extinct evidences of the order *Lacertilia*, whilst the existing lace-lizard of Australia attained a length of 10 or 12 feet, in the newer tertiary strata of that continent, corresponding to our brick earth, the gigantic *Megalania* was found, which was from 23 to 30 feet in length. The *Dolichosaurus* from the chalk was noticed, the slender neck of which reminds the observer, at first sight, of a serpent. In the Purbeck, or upper oolitic strata, have been found several genera of minute lizards, termed, by Professor Owen, *Nuthetes*, *Macellodus*, *Echinodon*, *Saurillus*, etc., of which the teeth were more or less fitted to seize, crush, and comminute the chitinous coverings of the minute insects, who were also preyed on by the entomophagous Purbeck mammalia. The large *Mosasaurus Hoffmanni* was especially selected for illustration. The history of this specimen was as follows:—Dr. Hoffmann, Surgeon to the forces quartered near Mästricht in 1780, occupied his leisure by collecting fossils from the quarries of the yellowish chalky stone found in that neighbourhood. The workmen, under his orders, obtained almost the entire skull from the quarry, and it was added to his collection. But soon one of the canons of Mästricht cathedral, who owned the surface of the soil beneath which was the quarry whence the fossil had been obtained, when the fame of the specimen reached him, pleaded certain feudal rights to it. Hoffmann resisted, and the canon went to law. The chapter supported the canon, and the decree went ultimately against the poor Surgeon, who lost both his specimen and his money, being made to pay the costs of the action. The canon did not long, however, enjoy the possession of this unique specimen. When the French army bombarded Mästricht,

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in 1795, directions were given to spare the suburb in which this famous fossil was known to be preserved; and, after the capitulation of the town, it was seized and borne off in triumph. The specimen has since remained in the Paris Museum of Natural History, whence, after the peace of 1815, casts were distributed amongst the chief museums of Europe. The vertebral characters were briefly described, the "hypapophysis," which was present in the cervical series, disappearing in the anterior dorsals. The *Mosasaurus* was distinguished from *Crocodilia*, not only by having a row of teeth on the pterygoid bone, but by having the teeth elevated on small eminences along the alveolar border. This was the acrodont type of dentition. The characters of the *Coniosaurus* and the *Raphiosaurus* were briefly discussed. Amongst the fossil *Ophidia*, our earliest evidences of serpents have been obtained from the London clay of Sheppey, and of the eocene beds at Bracklesham, indicating serpents of from twelve to twenty feet in length, the shortness of the hypapophysis denoting that the serpent was not poisonous; while in the Hordwell beds a smaller species has been detected. Poisonous serpents have been derived from the tertiaries of Saloniki (*Laophis*), and from the miocene deposits of France and Germany. All the fossil serpents were constructed on the same vertebral pattern as the living species. Amongst the *Chelonia*, he indicated that in excavations in Norfolk, belonging to the same age, or, probably, older than the lake habitations of the pre-historic men, under sixty-five layers of a brown, peat-like-looking substance, not so charred, however, as the German "braun kohl" of Miocene age, there had been recently derived veritable tortoise bones, which had most probably been imbedded prior to the existence of the German ocean. Trionyces existed in the London clay. The Œningen pliocene affords us evidence of the existence of the snapping turtle, or *Chelydra*. More turtles have been obtained from the eocene deposits of the Isle of Sheppey than are now known in the whole world. The *Chelone longiceps*, from the London clay, with its single nostril, was contrasted with the *C. pulchriceps* from the Portland oolite, in which the nostrils were double. The *Pleurosternon* was found in the Purbeck deposits; it was almost flat, being compressed vertically. In the *Tretosternon*, from the same stratum, the large vacuity in the centre of the plastron, characteristic of embryonic tortoises, was retained. The triassic sandstones of Corncockle Muir, in Scotland, had afforded evidence of chelonian footprints. Soft-skinned *Batrachia* were only found in the tertiary deposits (*Palæobatrachus, Palæophrynos, Rana diluviana, R. pusilla*); and at the pliocene of Œningen had been discovered that urodelous Batrachian (*Andrias Scheuchzeri*) allied to the *Menopoma*, which Scheuchzer had described as the remains of a man who had witnessed the deluge and seen the Deity (*Homo diluvii testis et theoscopos*). The order *Labyrinthodontia* was next mentioned. In it the head was defended, as in the *Ganocephala*, by a continuous casque of externally sculptured, hard, and polished osseous plates, including the "post-orbital" and "supratemporal" bones, but leaving a "foramen parietale." There were two occipital condyles; the vomer was divided and dentigerous; two nostrils; ossified amphicœlian vertebral centra; ossified neural arches; pleurapophyses of the trunk long, bent; teeth rendered complex by undulation and side branches of the converging cement folds, whence the ordinal name. The examples cited were *Baphetes* from the coal, *Zygosaurus* from the permian, *Labyrinthodon, Rhombopholis, Mastodonsaurus, Trematosaurus, Metopias, Capitosaurus, Odontosaurus*, and *Xestorrhytias* from various triassic strata. In Professor Owen's next lecture he will treat on the extinct orders of terrestrial and marine *Reptilia*, comprising the orders *Ganocephala, Ichthyopterygia, Sauropterygia, Anomodontia, Thecodontia*, and *Dinosauria*.

DR. RADCLIFFE'S LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Dr. Radcliffe delivered the first of these lectures on Monday afternoon, before a large and distinguished audience. After some introductory remarks, the lecturer stated that the facts which had been brought to light in the recent progress of scientific inquiry, render it absolutely necessary to re-examine two great problems in physiology, namely, the problem of muscular motion and the problem of nervous action, in so far as it concerns the property, which the nerves possess, of receiving and transmitting impressions; and that the main object of the physiological part of the lectures would be, to set forth these facts, and to point out the conclusions to which they lead. Beginning with the problem of muscular motion, Dr. Radcliffe first chose that part of the subject which concerns the action of electricity. In doing this, he was led into sundry interesting remarks upon animal electricity in general, the chief object being to show the reality of the phenomena, and the steps by which the existing state of knowledge had been arrived at, and also to point out the fundamental importance of the facts in a physiological point of view. He quoted Humboldt to show that this great philosopher believed that the time would come in which physiologists would allow, that they owed the knowledge of their two fundamental principles to Harvey and to Galvani. He also made this quotation from Aldini, Galvani's nephew: "As there is a metallic arc and a metallic pile in the mineral kingdom, there is also an animal arc and an animal circle in the animal kingdom, which may one day throw great light on the progress of Medicine, and be productive of considerable benefit to the human race." The rest of the lecture was occupied with an examination of the electrical condition of living musculo-nervous tissue during the state of rest, the chief propositions set forth being these:—1. In living musculo-nervous tissue during the state of rest there is an electric antagonism between the longitudinal and transverse surfaces of the fibres, the longitudinal surface being positive, and the transverse section negative. 2. If living muscle or nerve be included in the circle of a galvanometer, the needle of the instrument moves under the action of a continuous electric current, if the two points of the muscle or nerve so included be in a state of electric antagonism, but not otherwise. 3. In living musculo-nervous tissue during the state of rest, there are signs of statical as well as of current electricity. 4. There is reason to believe that the electrical condition of living musculo-nervous tissue during the state of rest is not current, but statical, and that the signs of current electricity which are obtained when living musculo-nervous tissue is included in the circuit of the galvanometer in a particular way, are no more than secondary phenomena. Dr. Radcliffe stated, that very important consequences followed from this view of the matter, which would be developed in the succeeding lecture; and that, among other things, it would be found to explain why living muscle during rest was in a state of elongation. On this occasion, however, he did not get beyond the statement of the bare facts, among which, we may say, were some in the highest degree curious and interesting, particularly some forgotten experiments by Humboldt, Aldini, and others.

THE NEW SERJEANT-SURGEON.

This ancient dignity has, as was expected, been conferred on Mr. Cæsar Hawkins. The whole Profession stamps this appointment with most emphatic approval. Mr. Hawkins has for many years been Surgeon, and then Consulting Surgeon, to St. George's Hospital. His contributions to Surgical literature, in the form of essays on tumours, cancerous and other ulcers, &c., show him to have been an accurate clinical observer. As an operator he has been esteemed safe and successful. He has long served as a teacher of Anatomy, then of Surgery. He has filled the highest offices in the Royal College of Surgeons, and has an eminent position as Consulting Surgeon amongst the highest ranks of society.

His promotion to the highest dignity which our Profession affords, is hailed, by the Profession and the public, as the just reward of a long, laborious, and honourable career.

THE NEW SURGEONS EXTRAORDINARY.

Mr. James Moncrieff Arnott, F.R.S., and Mr. R. Quain, F.R.S., have been chosen Surgeons Extraordinary to her Majesty. So says the *Gazette;* and we are sure that the announcement will be received, no less than that of Mr. Hawkins' appointment, with entire satisfaction by the Profession. Mr. Arnott has long been known as one of the soundest Surgeons—Professor Quain as, perhaps, the first Surgical anatomist—of the day. The great work on the "Arteries" is undoubtedly the most valuable addition to the knowledge of descriptive anatomy that has been made in this country in the last half century. We heartily congratulate both gentlemen on the recognition which their merits have received from their Sovereign.

HOME FOR MOTHERLESS GIRLS.

A "Home for Motherless Girls" has been opened in King-street, Grosvenor-square. When we consider what the position and prospects of such poor creatures must be, who are left to the mercenary care or neglect of women who naturally prefer their own ease and comfort before the welfare of their charge, we are glad to recommend this infant institution to the good wishes and support of our Profession. Those among us whose practice leads them much into the poorer districts of this metropolis can testify, from their own knowledge, to the great need that exists, on the part of such orphans, of compassionate efforts in their behalf. The institution is in part self-supporting. This is as it should be.

THE DIETETIC ELIGIBILITY OF MEAT "KILLED BY KINDNESS."

We call attention to a letter from a "Country Surgeon," which appears at page 586. He asks rather a delicate question. For our part, we cannot overtly recommend any meat which has not been sacrificed in the legitimate manner by the butcher. If, however, a distinction must be drawn, it may be in favour of animals that have been fed to death, and have been, as it were, smothered in an excess of their own rich blood. We have had many conversations with cattle-feeders on the matter, and are convinced that the state of fatness and plethora to which an animal is brought when it is considered fit for the knife, is one of which the animal would die—if his life were not saved by killing him. The divine Hippocrates says something like it of the athletes of old. "Repletion," he says, "carried to its utmost limit is dangerous, for they cannot remain in the same state, nor yet be stationary. It only remains, therefore, for them to get worse. For these reasons the plethora should be reduced without delay; not that the evacuation should be carried to an extreme, for this, also, is dangerous." The "evacuations" of the "pig-sticker" are certainly "extreme"; but it will be seen that they are one of the only alternatives possible. If the animal is not killed it will die. The real sources of diseases from eating the flesh of animals that have died natural deaths are three. First, parasitic diseases, *e.g.*, measly pork producing tapeworm; second, blood poisons, *e.g.*, small-pox and malignant pustule. Under this denomination we include animals whose blood is in a fevered and unwholesome state generally. And the third, poverty of nutritious elements. The flesh of diseased animals is anæmic and poor; for instance, that of sheep affected by rot. Overfed animals are subject to rupture of blood-vessels, of which the disease called splenic apoplexy, of which we know nothing in the human subject, is an example. The most practical advice that we can offer is, that animals should be killed before they are in danger of dying. If they have died of repletion, and the flesh pleases the eye and the palate, and does not disagree with the stomach, the eaters may fall back upon the apostolic maxim—Better ask no questions.

THE OXFORD AND CAMBRIDGE MISSION TO CENTRAL AFRICA.

We have ere now brought before our readers the circumstances which led to the death of Bishop Mackenzie, and the abandonment of a mission which was to have civilized Central Africa. They show how imperative is the exercise of the most minute inquiry and forethought, before the valuable lives of English men and women are put in jeopardy. In the present case, the site chosen for the mission was unhealthy—food was unattainable, access difficult, cotton cultivation not remunerative, and, above all, the character of the natives and their habits not understood. For instance, the slave trade—is it a cause, or an effect? Is it of any use to attempt an armed intervention on behalf of human liberty, with people who have not yet learned to regard human life? What follows is an extract from a letter from the Rev. H. Rowley, one of the missionaries:—

"We must have moved from Magomera, for it was a pest-hole; it is only by God's mercy that we have escaped the fate of the Linyanti missionaries. We have lost fifty or more of our people by dysenteric diseases, ulcerous sores, and fever, and by want of food; for, during the last few months, we have had the three great plagues—war, famine, and pestilence. Our own physical condition—greatly aggravated by want of proper food, flour, etc.—has been very wretched. Twice from dysentery I was as near death as a man can be and live, but since then, I am thankful to say, I have been really well. The rest of my brethren suffered repeatedly from fever and diarrhœa, more or less. We left, as you may have heard, nearly two-thirds of the stores brought out with us on board the *Vega*, the storeship at Johanna, the *Pioneer* not being able to take them. We suffered much in consequence, but consoled ourselves that we should have fresh supplies in the first month of the year.

"The highlands are not cotton producing in the sense always understood of them, and if they were it would never pay to bring cotton thence; the cost of carriage, supposing the article untaxed, would be too great. Livingstone erred when he said there existed but thirty miles of land carriage between the navigable part of the Ruo and Shirwa. You cannot reach any one point of the lake from either the Shire or the Ruo without a journey of more than 100 miles over the most difficult ground, where waggon traffic is impossible. He was deceived by mirage, for he was not near the lake when he formed this conclusion.

"We are certainly depressed by the calamitous events of the past few months, but we are not hopeless. We still trust God has great things in reserve for this land, although for our sins we may not be the agents in carrying them out."

THE MOUSE IN THE OATMEAL BROTH.

It is curious to see how certain subjects come round after the lapse of a few years, and to find that the literature of the famine of 1849 is reproduced for the benefit of the people who are now starving for lack of cotton. The *Social Science Review* is reiterating, for the benefit of the charitable, that it is not quantity only, but quality, and due admixture of food, which is required. Let food be ever so abundant, yet if it be wanting in some one essential, the population, if they do not actually starve, will show signs of fever or scurvy. Much fat, much starch, gelatine, or sugar, is merely wasted, if given without due admixture with other ingredients. Too much stress cannot be laid upon the expediency of giving a little fresh meat and fresh green vegetables at regular intervals, in addition to the soup, porridge, bread, tea, sugar, and the like. The charitable must be ever on their guard, too, against putting too much faith in soup *per se*. The French have a maxim that "soup makes the soldier"; but then the soldier eats a monstrous piece of bread with it, and adds, besides, any green-stuff he can lay his hands on, which is not actually poisonous. What use they made of the dandelion in the

Crimea, the late M. Baudens well testifies. In many a house, the "gravy-beef," which is used for the manufacture of beef-tea and sauce to enrich other meat, is remorselessly thrown away, merely because somewhat insipid, although, after all, it contains the stuff out of which muscle and bone are made. If pounded up, and boiled up with fresh onions and other vegetables, it forms a capital stew. In fact, the French *bouilli* is nothing more. The scores of pounds of meat which are used for "stock" in the kitchens of the rich might be thus utilised. Liquid soup, we again say, is very good in its way: it is easily assimilable, and furnishes the starving system a supply which needs little or no digestion; yet solid food must be given besides, in the shape of meat fibre, bread, biscuit, etc., if a sufficient quantity of nitrogenous food is to be given to supply that which passes off in the form of urea. This, amongst other points, has been well put by Professor Haughton. He has analysed the oatmeal broth and beef-tea used at the Meath Hospital, in order to estimate the amount of nitrogen they contain. Of course, the human body creates nothing within itself (although the revered old Dr. Prout once thought that the pancreas could create nitrogen), else food would be unnecessary; and if nitrogen is to be excreted by the kidneys, it must first be put into the stomach. The Meath oatmeal broth corresponds, per quart, to 3 ozs. 5 drachms of oatmeal and a quarter of a pound of beef without bone. Professor Haughton determined the nitrogen in a quart of this broth, and found that it corresponded to 45·33 grains of urea. The beef-tea, which is made on the liberal scale of a pound of beef without bone to the quart, gave, in like manner, the equivalent of 56·74 grains of urea; about the same value as that of a quart of Guinness's XX porter, or of a pound of boiled cabbage, or less than a third of a quart of milk from the cow. Now, considering that the average man gives off nearly 500 grains of urea daily, and considering that a man whose brain is idle and body inactive may be able to exist with the production of, say 300 grains daily, it will be seen, that nearly seven quarts of the oatmeal broth would be requisite to furnish this; and Professor Haughton will be believed when he says, that the patients eagerly seek in the broth for the bit of boiled meat, which, he says, "is familiarly and affectionately called by them 'the mouse.'" We hope that such of our readers as have stock-pots, or use "gravy beef," will give "the mouse" to the poor.

METHYLATED SPIRIT.

From every side we receive complaints of the increasing use of this abominable compound. We scarcely need remind our readers that, in order to meet the complaint, that the high price of alcohol put difficulties into the way of English tradesmen by hindering them from using it in various manufacturing processes, the legislature, in 1857, allowed alcohol to be sold for manufacturing purposes (but not as a beverage) at a very low rate of duty, provided it were mixed with various nauseous empyreumatic oils, which, it was presumed, would render it unusable as a beverage. Thus, the chemist need not forego his experiments through the expense of spirit for his lamp; and the makers of varnish, of anatomical preparations, and the like, would be able to use alcohol cheaply, whilst alcohol used as a beverage would continue, as before, to be subject to a heavy duty. Fraud and avarice, however, have not been able to resist temptation. Some persons have set to work to *clean* the methylated alcohol, *i.e.*, to deprive it of its nauseous qualities, so that it may be sold and used as alcohol that has paid the duty—a thing equivalent to smuggling; whilst others have used methylated spirit, after more or less purification, for the preparation of medicinal tinctures. It may seem a very mean and odious thing to use, as medicine for the sick, a substance which has been purposely made too nauseous to be swallowed by the healthy; but the cheap cutting wholesale druggists think that they must live, and the public are notoriously penny-wise. This very week we have met with two remonstrances on the subject. One well-known contributor to this Journal writes:—"The druggists are poisoning our patients by filthy tinctures and spirits. I prescribed Spt. ammon. aromat. in a draught for a patient who was vomiting. She was made ten times worse by the filthy stuff sent, made of methylated spirit. They charge 1s. 6d. or 2s. for a mixture, costing 1d. or 2d., and even then will not keep to the Pharmacopœia."

Another contributor says—"I went to see the other day a fine old woman of eighty-nine who was ill of bronchitis. But do you think I would let her have drugs from the —— Dispensary? Oh dear no, I know the value of life too much for that. A fine old stomach that has stood all sorts of bad living for eighty-nine years might kick at last at a dose of methylated spirit. A little while since I prescribed for a patient of the same Dispensary, a mixture, containing a little Sp. æth. s. c., *alias* Hoffmann's anodyne. The patient complained that the medicine burned up her tongue and throat. I tasted it myself, and found a nasty, rank taste, and a kind of astringent sensation on the tongue, which I knew never follows from the use of the same medicine, when properly made up. So I went to the Dispensary to inquire, and soon learned from the dispenser that 'Perhaps it was the methylated spirit that the spirit of ether had been made with.'" It will be seen, from the subjoined letter of the Secretary to the Board of Inland Revenue, written in reply to an application by Mr. Squire, that the use of methylated spirit for medicines cannot be hindered by that Board. The Royal College of Physicians have already spoken upon the subject: we wish they would revive their old privilege of visitation. The Master and Wardens of the Society of Apothecaries also might do the same. The Poor-law Board might forbid the use of this noxious stuff in Union practice, and we hope all Physicians would advise their prescriptions to be compounded at no shops where the same fraud is practised. But it is in the supply of drugs to charitable institutions that the greatest opportunities are given for this mean outrage on the stomachs of the miserable. Dispensaries are large consumers and bad pay-masters, and there is not always any one who makes it his business to complain of the quality of drugs. Nay, it is far more likely that the dispenser may be bribed by the wholesale druggist to connive at his peculations. Here is material for any one who wants a good grievance to work at:—

"Inland Revenue, Somerset-house, London, W.C.,
October 17, 1862.

"Sir,—In reply to the letter to this Board, signed by yourself and the President of the Pharmaceutical Society of Great Britain, on the 1st inst., I am directed by the Board to inform you that—

"1. No person whatever is allowed to rectify or purify methylated spirit for any purpose.

"2. A pharmaceutical chemist, or a chemist and druggist, or other person having a still-license, may purchase methylated spirit, and use it, *so far as this Department is concerned*, for the purpose of making tinctures, medicated spirits, etc., or for any other purpose except for that of sale as an ordinary beverage.

"In explanation of this latter statement, I am to add the following remarks:—

"When the use of methylated spirit, duty-free, was first legalised, any person who desired to use it was required to apply to the Board for permission to do so, stating the purpose for which he intended to employ the spirit, and the permission was granted for that particular purpose (if approved), and no other.

"In consequence of the correspondence in 1857 and 1858, which you quote in your letter, the Board have since then, in all cases of application for permission to use the spirit in pharmaceutical preparations of any kind, furnished the applicant with a copy of the lithographed circular to which you refer, and explained to him that the authority which they give for the use of the spirit does not sanction its employ-

ment in any form disapproved by the Royal College of Physicians. Applications of this description are still made from time to time, and still answered in the same terms.

"Since August, 1861, however, when the Act 24th and 25th Vict. c. 91, was passed, a great change has been introduced into the trade in methylated spirit.

"By that Act, any person (except traders in ordinary spirits, beer, wine, or sweets) may take out a license for retailing methylated spirit for any purpose except consumption as an ordinary beverage; and any person may purchase methylated spirit from a licensed retailer thereof, for any purpose, except as above.

"Chemists, therefore, need not now apply to the Board for any authority to use methylated spirit, nor, unless such application be made, can the Board restrict or caution them as to the application of the spirit. A chemist may, if he chooses, become a licensed retailer of methylated spirit, and use such quantity as he requires for his own purposes; or he can purchase the spirit from a licensed retailer, without revenue restrictions as to its use in his trade or business.

"I am, Sir, your obedient Servant,

"Mr. Bemridge. THOMAS DOBSON, *Secretary*."

GARIBALDI'S WOUND.

THE following telegrams appeared in the *Times* of November 24:—

"PISA, November 23.—At ten o'clock this morning Dr. Zanetti successfully extracted the bullet from Garibaldi's wound.

"BRUSSELS, November 23.—The *Indépendance Belge* publishes a despatch, stating that a splinter of bone and the bullet had been extracted from Garibaldi's wound with great ease."

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

IT is my intention to devote the first part of my Notice of this week to the consideration of those instruments and appliances which are employed in Dental Surgery; and here, again, I must refer to the important substance—vulcanite. The extensive employment of this material, as a support for artificial teeth, is an evidence of its importance; and when its cheapness and slight destructibility are considered, it is clear that it is highly suitable for the purpose. Several exhibitors show specimens of it, the colour of some of which approaches somewhat to that of the natural gums; most of them, however, are far from being even good in this respect. I think that Mr. J. Faulkner has succeeded in producing a better tint than any of the other exhibitors, although that shown by Messrs. C. Ash and Sons is very good; but, to quote the words of the excellent report on Class 17, I may add, that "much remains to be done in this particular." This latter firm have a large case, which is well stored with the appliances required by the practical Dentist, all of which are of excellent manufacture. Forceps of various kinds, elevators, plugging and excavating instruments, files, vulcanisers, and tools for working vulcanite, and, indeed, everything almost which the dental art requires, can here be seen.

Lemale and Co. show a remarkable collection of artificial teeth, some of which are intended for employment in the vulcanite process; all of them are very natural in shape and appearance. Messrs. Smale also exhibit mineral teeth of great merit, as well as dental instruments, and apparatus for the manufacture of vulcanite. Young (Glasgow) has a small case which contains a set of forceps with movable beaks. The only advantage which this arrangement possesses is, that a variety of instruments can be packed in a small compass, and I can understand that such a system would now and then be useful in country practice; but surely no Dentist would ever employ these in preference to the ordinary instruments. Mr. G. Williams shows some specimens of contrivances made by him for the treatment of fissures of the hard palate, which are ingenious; but I do not think that the plan of occluding openings of the kind referred to, by means of plugs which pass *through* them, and hold themselves in position, can be considered to be an advisable one.

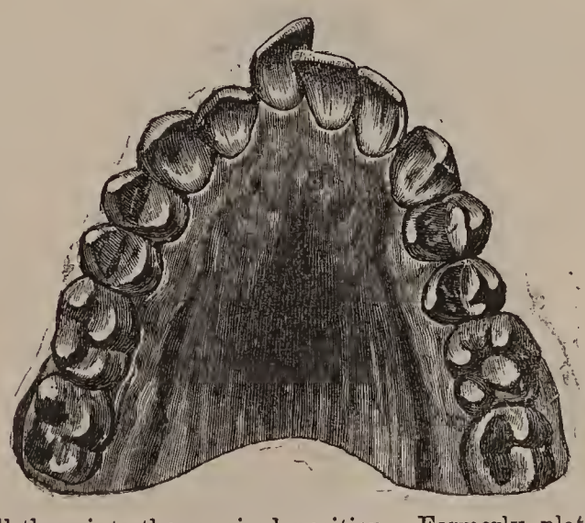
Mr. Barling is one of the few exhibitors who show materials for filling cavities in the teeth. His small case contains some examples of "crystalline" gold, in "sponge" and "leaf;" and I may remark that he originated the use of this substance. The "Report" draws attention to the fact, that much also remains to be done in this direction, a good material for stopping purposes being still a desideratum. Mr. W. Harnett exhibits a case which is well stocked with artificial teeth of good manufacture, and also a few dental instruments. Mr. Hudson (South Shields) shows a tooth-punch invented by him, which seems to possess some advantages over that ordinarily employed; and Mr. Fitkin exhibits his instrument for extraction, which consists of two levers, one acting as a fulcrum, and the other as an elevator. This gentleman claims for this combination the following merits:—That it does not *grasp* the tooth, and hence the latter is not so liable to be crushed; and that in extracting stumps, the elevator acts on the fulcrum, and so cannot slip and do mischief to the gum or cheek. I cannot speak decidedly on this point, but should infer that, in skilful hands, no instrument yet invented is likely to prove superior to the well-constructed forceps that are now employed.

Evrard, of Charles-street, has always enjoyed a great and deserved reputation for his dental instruments, and he well maintains it in the present exhibition. I can hardly conceive it possible that they can be surpassed, either in the excellence of their manufacture, the variety of their form, or the temper of the metal employed. These remarks not only apply to the dental forceps, drills, etc., but also to the lithotrites and bone-forceps which are contained in his case. In the majority of the former instruments he has adopted the joint which he originally employed some years since; while he has furnished others with an eccentric joint which he considers to be advantageous in certain cases. The small lithotrites which Evrard exhibits are also beautifully made; their inner blade moving in obedience to the depression of a handle, which acts on a piece of rack-work. They are very light, easily manipulated, and adapted for crushing small stones. His bone-forceps are original and of excellent construction. By an ingenious arrangement (a "slot-action"?) one blade approaches the other in a parallel direction throughout its whole length. I must again remark, that all the instruments shown by this maker are of very superior manufacture.

Hallam also shows many dental instruments of good workmanship and form; they have procured him an honourable mention, and are well worth attentive examination.

Mr. Wood (Brighton) exhibits numerous models illustrative of the successful treatment of irregularities in the position of the permanent teeth. In order to overcome this state, three conditions are necessary:—Firstly, that there is sufficient space in the jaw to allow the irregular teeth to be moved into the line of the dental arch; secondly, when the lower teeth close in front of the upper, the mouth must be kept sufficiently open to permit the upper teeth to be moved forwards to the proper position; and, thirdly, an apparatus must be worn which shall afford a fixed point of resistance, by which pressure may be exerted on the irregular teeth, so as to press

FIG. 1.



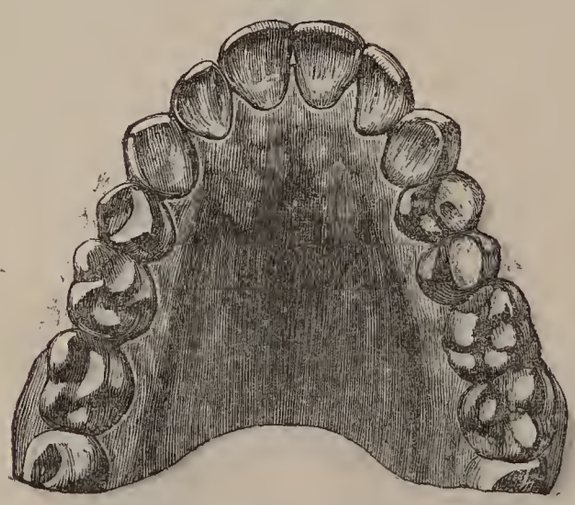
or pull them into the required position. Formerly, plates of

gold or bone were employed: the former is still resorted to now and then, but vulcanite is now most frequently adopted instead of bone. There has been much variance of opinion as to the age at which art ought to interfere in the treatment of cases of this description; and the adjoining illustrations represent the progress of one which I have selected, because the patient was of adult age; there was no room in the jaw for the reception of all the teeth in the dental arch; and also because it was complicated by the closure of the lower teeth in front of the upper. As will be seen, by referring to Fig. 1, the right central incisor was thrust obliquely forwards, the lateral incisor of the same side stood inside the dental arch, and the bicuspids and canine had come down, so that the latter tooth encroached upon the space which ought to have been occupied by the two incisors. On the left side, the central and lateral incisors stood somewhat within the proper curve of the dental arch, and the lateral slightly overlapped the central; the bicuspids of this side also were somewhat within the line of the dental arch, but not to such an extent as to affect the treatment of the case. Space was gained by the extraction of the first bicuspid, on the right side, as shown in Fig. 2; the

Fig. 2.

canine was brought back into the position occupied by the tooth which had been removed; and the right lateral and both the left incisors were pushed into position. This was done by means of a gold plate (see Fig. 2), made to fit the palate, and mounting high up on the backs of all the teeth except the right canine, which had to be moved towards the second bicuspid to make room for the incisors of the same side. The plate also covered the crowns of the bicuspid and molar teeth as well as their outer surfaces, and reached up as far as the gum. This arrangement helped to keep the teeth so far apart as to prevent those of the lower jaw from closing in front of the upper (which they all did with two exceptions); and it allowed two projecting pieces to be attached to the outer surface of the plate in positions corresponding to the first bicuspid on the left side, and to the second bicuspid on the right side, to which an elastic band was attached. Com-

Fig. 3.



mencing on the left side, this band (Fig. 2) was looped on to the catch opposite to the first bicuspid; it then passed in front of the canine of the same side, behind the two incisors, in front of the right central incisor, behind the adjacent tooth, and again in front of the canine, to be fastened to the catch on the right side of the plate. In this way the strain was so exerted as to press the misplaced teeth in the direction they were intended to assume. Small nodules of gold were soldered to the palatal surface of the plate behind some of the front teeth (in the position of the stars seen in Fig. 2), so that when the mouth was closed the plate was pressed upwards, and additional force brought to bear on the right lateral and both the left incisors. The termination of the case is shown in Fig. 3; and I think I am justified in saying, that it is such as to render cases of this kind highly interesting to the Surgeon as well as to the Dentist, when the amount of deformity, the age of the patient, and the fact, that the cure was effected in four months, are taken into consideration.

Mr. Wood exhibits the results of treatment in many other cases of deformity, but my space will not allow me to refer to them further than to remark, that they are remarkable proofs of what can be done under similar circumstances by skill and patience.

The only other exhibitor of appliances which relate to Dental Surgery, to whom I am inclined to refer, is M. Préterre (France). The contents of this gentleman's case are very remarkable, as showing the extent to which the skilful dentist can remedy defects in the mouth, whether the result of congenital deformity, or caused by injury or disease. The specimens exhibited have not been made for hypothetical cases, but are copies of appliances which he has furnished to patients, many of whom were long under the notice of some of the Hospital Surgeons of Paris. As M. Préterre says in his short pamphlet (which precedes the appearance of a large work on the subject of Buccal Restoration, now preparing for publication, the manuscript of which I have had an opportunity of looking over), the Crimean and Italian campaigns have furnished him with opportunities of restoring the most serious and complicated injuries; and, in order that there shall be no doubt as to the authenticity of his cases, he came to London fortified with the certificates of the various Surgeons who had watched the patients with him. The contrivances which M. Préterre exhibits are adapted,—1stly. For the restoration of the whole, or portions of one or other, of the maxillæ; 2ndly. For the treatment of either congenital or acquired fissures of the hard palate and velum; 3rdly. For the restoration of parts lost in consequence of gunshot wounds (these pieces were ordered by the French Government for soldiers wounded in Italy and the Crimea); and, 4thly. For individual cases which cannot well be classed in the preceding category. The great void left after the removal of the whole, or even part, of the upper jaw, although it is most frequently much diminished by the natural reparative process, now and then interferes with mastication, deglutition, and phonation. These cases, M. Préterre has succeeded in restoring to the ordinary conditions of life by contrivances which unite the important conditions of lightness and durability. In the restoration of abnormal conditions of the palate, the apparatus necessarily varies more or less with each case. For some of these he constructs an obturator, composed of a rigid palatine plate of vulcanite, and an artificial velum of soft caoutchouc, the whole obtained without solution of continuity, by a single vulcanisation. This process is due to the exhibitor, and also the art of tempering gold for the springs employed to keep the artificial velum in position. I have had an opportunity of observing the effect of one of these apparatus, and it was most marked; the improvement in the voice being quite wonderful. The instances of restoration of lost parts furnished by the sufferers in the two last wars in which France has been engaged, are so numerous that it is impossible for me to do more than allude to them: they are all of them characterised by great ingenuity, and, as far as I can observe from the models, by every prospect of success.

M. Préterre shows, in addition to the contrivances already referred to, some specimens of ordinary Dentistry; but these, although of excellent quality, appear to be but of little importance when seen side by side with the examples of buccal "prothesis," which constitute a real and important advance in Dental Surgery.

A few remarks on artificial human eyes will bring this week's notice to a close:—

There are a few collections of these ingenious results of manufacturing art in the present Exhibition which deserve especial

remark, as much for their great brilliancy and natural appearance, as for the variety of form in which they are made, in order to suit the requirements of individual cases. Until the commencement of the present century, the "false eye" was merely a clumsily-shaped piece of glass, which could only be used when the ball was either much wasted or had been entirely removed. They were also of considerable weight, and possessed no adaptation of form to fit the cavity they were intended to fill; so that the eyelids, instead of playing freely, were forced into strained and unnatural positions, which produced the appearance of a fixed stare, which is still to be observed now and then. That the art of making them should be so difficult, and that so few attain to anything like proficiency in it, can scarcely be wondered at, when it is considered that they are entirely worked by the common chemical blow-pipe apparatus from pieces of coloured enamel glass. These latter are so carefully mixed and prepared, that the most minute particles of colouring in the iris, the tints of the sclerotica and its blood-vessels, the transparency of the cornea, the size of the pupil, and all other details, are copied to the life so closely, that it is sometimes extremely difficult, in cases in which the lids have not been injured, to discover on which side the artificial eye is worn. They are now blown into every conceivable variety of shape, and are so nicely adapted to the cavity and well-balanced, that the smallest movement of the stump of the lost eye, or even of the eyelids, produces a corresponding action of the artificial eye, sufficient in all cases to prevent the appearance of a fixed look, and in some favourable instances giving a movement almost equal to that of the sound eye. They are also now made so very thin as to be worn in cases where the sight only has been lost, and the globe but slightly shrunk; the artificial shell fitting so closely over it as to add but little to its bulk. These desirable results have been obtained by the constant efforts of Mr. Grossmith and Messrs. Gray and Halford (London), and MM. Boissonneau (father and son), and M. Desjardins (Paris). The number of artificial eyes supplied by these makers is almost incredible; and I have no doubt that between them they manufacture by far the majority that are used throughout the different parts of the world.

As all that are in the present Exhibition are so meritorious, I find it difficult to venture on criticism; but I think that the eyes now shown by Desjardins, Grossmith, and A. P. Boissonneau, for cases where the ball has but little diminished in size, are superior to any that I have hitherto seen. They are remarkably thin, have a beautifully smooth surface, and well-rounded edges. One thing only appears to be required, and that is, some method of hardening the enamel, so as to prevent it from becoming corroded by the discharge which occurs when the eye has been lost or injured. I believe that the attention of some of the makers I have named is being directed to this point, and I trust that they will be successful.

As it is, for a sum varying from one to two guineas, an artificial eye can be obtained, which will retain its brilliancy for a period varying from twelve to eighteen months, so that they cannot be considered an expensive luxury; while the comfort they afford the wearers, by protecting the cavity from cold, and supporting the eyelids in their proper position, added to the restoration they make in personal appearance, render them of value to all who have the misfortune to require them.

47, Hans-place, S.W.

REVIEWS.

The Microscope and its Revelations. By Wm. B. Carpenter, M.D., F.R.S., etc. Third Edition. Illustrated by ten plates and nearly 400 wood engravings. London: John Churchill. 1862. Fcap. 8vo. Pp. 792.

This work, in its new edition, has received a notable increase in its size and its accuracy. It is almost superfluous to say that it consists, first, of a description of microscopes and microscopic apparatus, and, next, of its applications—and in this part of the subject the author's plan deserves all commendation. He does not aim merely at showing such objects as are curious, or at giving a utilitarian turn to his book by describing adulterations in food, or the like; on the contrary, he makes it, as it were, a good means of indoctrination into natural science, and a guide to those observers who wish to improve their understandings quite as much as to regale their eyes. We commend to those who possess microscopes Dr. Carpenter's observations on the prevalent waste of microscopic power in fruitless, because aimless and desultory, researches.

A Practical Handbook of Medical Chemistry. By John E. Bowman, F.C.S., formerly Professor of Practical Chemistry in King's College, London. Edited by Charles L. Bloxam, Professor of Practical Chemistry in King's College, London. Fourth Edition. London: John Churchill. 1862. Fcap. 8vo. Pp. 303.

Of this well-known handbook we may say that it retains all its old simplicity and clearness of arrangement and description, whilst it has received from the able editor those finishing touches which the progress of chemistry has rendered necessary. Amongst the additions are, a description of Professor Graham's method of separation of crystallisable substances by dialysis, and of the quantitative determination of the constituent of the urine by the volumetric process; and it is fair to add, that the editor says he has tested every process given for detecting poisons in organic mixtures by actual experiment.

Chemistry. By William Thomas Brande, D.C.L., F.R.S., etc., etc., and Alfred Swaine Taylor, M.D., F.R.S., etc., etc. London: John W. Davies, 54, Princes-street. 1863. Fcap. 8vo. Pp. 892.

The authors of this book tell us, in their preface, that one has been engaged in teaching chemistry in this metropolis for forty, and the other for thirty years. Whether or not "time may have thinned their flowing locks," we will not venture to say; but, most assuredly, time has not abated one whit of the fluency, the vigour, and the clearness with which they not only have composed the work before us, but have, so to say, cleared the ground for it, by hitting right and left at the affectation, mysticism, and obscurity which pervade some late chemical treatises. They set out with the definite purpose of writing a book which shall be intelligible to any educated man. They deprecate incessant changes of nomenclature in accordance with the fluctuations of theory. They condemn, above all things, the framing of grand and comprehensive hypotheses, and the doing gentle violence to facts in order to make them fit. They purpose, especially, to make their work available for the student of Medicine, who, it must be remembered, has to learn eight sciences in four years. They do not treat of physics, neither do they fill their pages with woodcuts; observing, sensibly enough, that whoever wants engravings of air-pumps, flasks, and retorts, may get them for nothing in the illustrated catalogues of such manufacturers as Griffin or Maule.

Thus conceived, and worked out in the most sturdy, common-sense method, this book gives, in the clearest and most summary method possible, all the facts and doctrines of chemistry, with more especial reference to the wants of the Medical student. We could wish that the size of the book had been rather larger, and the thickness less; but it would be unfair to grumble at receiving 892 clearly-printed pages for five half-crowns.

We cannot make long extracts or analyses of such a book, but we may show how the authors deal with a question which we have brought before our readers of late,—that of the hypothetical composition of acids, and whether oxygen or hydrogen is the acidifying principle; whether hydrated sulphuric acid, for example, shall be formulated as SO^3,HO, or as SO^4,H; nitric acid as NO^5HO, or NO^6,H.

"In the absence of water we can get no evidence of acidity or alkalinity in substances. Thus, sulphuric acid in the anhydrous state is a fibrous solid which has no action on litmus, and no corrosive properties. Solid anhydrous phosphoric acid has no acid reaction on test paper; this is only manifested on the absorption of some water from the air. Boracic acid and silicic acid are in the same condition. . . Dry carbonic acid gas has no action on dry litmus. It has been supposed that this apparent production of acidity by water was a proof that all oxacids must owe their acidity to *hydrogen*, thus making them hydracids or hydrides of new radicals; but such an hypothesis is not necessary for an explanation of the facts. Thus, in reference to the elements of carbonic and other acids, water may simply act as a solvent to bring the constituents of the acid in contact with the vegetable colour. Anhydrous potass, soda, and ammonia, in the absence

of moisture or water, cannot be proved to exert any alkaline reaction on vegetable colours; and to explain this reaction it is not necessary to suppose that the potash or soda absorbs another atom of oxygen, and becomes a hydride, or to assume therefrom that hydrogen is the cause of alkalinity."

In treating of the oxygen acids the writers give a remarkably clear statement of the argument against assuming hydrogen to be the acidifying principle.

Of course, we cannot be expected to read every page of a book like this before reviewing it; but we have read a great deal, and have probed it at various parts treating of *pet* subjects, such as ozone, antozone, dialysis, analysis of water (Clark's test is scarcely mentioned), analysis of urine (scarcely full enough); and we record our verdict, that it is like a promising vintage, strong, clear, full-bodied, and not by any means dry.

GENERAL CORRESPONDENCE.

DISEASED MEAT.—IS THE FLESH OF APOPLECTIC HOGS POISONOUS?

LETTER FROM A COUNTRY SURGEON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I venture to place before your readers a brief statement of a circumstance which lately occurred, and which, I trust, will be thought sufficiently interesting to elicit the remarks of some one more experienced in such matters than I am.

About a fortnight ago, a friend who occupies a large farm in my neighbourhood came to me in some dismay, stating that three out of twelve fat hogs had died suddenly, and that he was anxious to know if there was reason to suspect poison. As one of the hogs was then in process of dissection by the ancient pig-sticker, I went to the farmyard to make an inspection. The animal was a noble looking one of between twenty and thirty score, and, as he hung by his heels in the slaughter-house, his fat and flesh appeared to be without a blemish. The skin, however, more particularly on the belly and flanks, was thickly bespread with an eruption of spots of a deep crimson colour. There were some on the back, but smaller and more thinly scattered. Within the body my attention was first directed to the mass of fat which enveloped the right kidney, and which was largely distended with fluid. On passing the knife into it, the fluid proved to be blood, in quantity about two pounds. This had escaped from the pelvis of the kidney, into which the hæmorrhage had first taken place, but no venous aperture was discovered. I now had the left kidney removed with greater care: there was no extravasation of blood into the surrounding fat, but the outer surface of the organ was freely marbled with dark spots of blood, which had been, as it were, injected into the cortical portion. On opening the kidney, the pelvis and ureter were found to be crammed with firm coagula. I, therefore, concluded that blood would be found in the bladder: this organ had been thrown away without examination, but, in obedience to my wishes, was soon found. It contained coagula and bloody serum, with apparently very little, if any, urine. No particular appearance was found in the liver or lungs, but the endocardium exhibited small extravasation spots.

The mode of death appeared to be that of coma: the pigs were found apparently asleep, but in truth dead, without any premonitory symptoms having been observed by the farm servants.

Believing the disease to be the effect of over feeding, I advised a lighter diet, that the animals should be watched as closely as possible, and that, on the appearance of bloody urine, the knife should be immediately resorted to. A fourth animal was in a few days observed to pass bloody urine, and, though otherwise quite well, was slaughtered. I inspected the kidneys, and found both of them exhibiting the same hæmorrhagic characters, and the skin was covered with the same petechial eruption.

Their food consisted of barley and peas ground, and of the best quality. When I write, ten out of the twelve have been killed, most of them, I believe, showing similar signs of disease. The question now arises, was the flesh of these pigs wholesome? If the proof of the pudding really be in the eating, it is already answered, for several of the farm servants, grieving that such fine pork should be wasted, made light of all scruples and ate it heartily, and, as they have not yet sent for me, I presume that "good digestion has waited on appetite, and health on both."

I have made inquiry of several butchers, but have not yet met with one who had seen a similar disease; but all admit that disease of kidney, or liver, or indeed of any organ, is no bar to the sale of the meat as perfectly wholesome, provided that, in killing the animal, it be thoroughly drained of blood.

I am, &c. A COUNTRY SURGEON.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, NOVEMBER 18.

Dr. COPLAND, President, in the Chair.

A REPORT, by Dr. HARE and Mr. HOLMES, was then read on the

SPECIMEN OF PLUGGING OF THE FEMORAL ARTERY, ETC., EXHIBITED BY MR. EDGAR BARKER.

The specimens referred to us were two in number:—1. A portion of a heart and aorta, sufficiently to show perfectly the condition of the aortic orifice. The valves were exceedingly diseased, and presented vegetations so large as materially to diminish the size of the aortic orifice; some of these vegetations were very pendulous, but it was impossible to determine whether any vegetation had been separated or not from the valves. 2. The second specimen consisted of about four inches of what was stated to be the femoral artery, together with three very short stumps of smaller arteries, one of which was the deep femoral, and which branched off at about the middle of the portion of the femoral artery submitted to us. We found all these completely plugged up with a firm clot, but varying (as will be hereafter stated) in its firmness: the clot extended from end to end of the portion of the femoral artery and of the stumps of the branches, so that the clot had been cut directly across on the removal of the arteries, and must have extended further down in all these vessels. The cause, therefore, of the obstruction must have existed at some point or points more remote from the heart than the specimens given to us. The clot in the femoral artery presented, at different parts, some slight differences of consistence and colour. Taken as a whole, it was very decidedly firm, and of a brownish red colour, but it was most firm and most decolorised just at the point where the deep femoral is given off. The transition from the paler and firmer portion to the darker and less firm portions above and below, was not sudden, but gradual—especially on the former (the heart) side. The walls of the femoral presented some atheromatous degeneration, but no spiculæ projected from the lining membrane. While we would draw the attention of the Society to the diseased condition of the walls of the femoral (there was not sufficient length of the other arteries to enable us to judge of their condition), and which diseased condition almost certainly extended lower down the vessel, we must also admit the possibility of an embolon or embola having existed at some more remote part of the artery or arteries than the specimen given to us; but we have no proof of such having been the case. As, however, several arteries were plugged up, it appears to us highly probable, that the condition of the blood itself must be taken into consideration in explaining the facts presented by the specimens exhibited, while the diseased condition of the vessels themselves may have acted as a determining cause as to the part of the arterial system affected.

Mr. CANTON then showed a specimen of

DISEASE OF THE SIX UPPER CERVICAL VERTEBRÆ, AND OF THE BASE OF THE SKULL.

It was a churchyard specimen, and there was, therefore, no history. It showed, however, anchylosis of the vertebræ, indicating recovery to some extent. The odontoid process, especially at the neck, was carious. It showed how nature had attempted to remedy the displacement in the case. A rib of bone had been thrown out, tying the odontoid process to the anterior arch of the atlas.

Dr. HARLEY then showed a specimen of

GUINEA-WORM TAKEN FROM THE LEG OF A EUROPEAN.

The gentleman from whose leg they had been taken gave

five of the worms to Dr. Harley. The specimen showed was the only perfect one. In reference to the way in which they were introduced, this gentleman said that he believed they were not taken in by drinking. He believed that he had caught them by walking barefooted in a jungle. This was about five months before he first perceived a certain bulla on his leg, which was produced by the worm. These worms were extracted by barbers, who were very expert. They cut out about one-eighth of an inch of skin with a razor, and then pick out a small loop, and gradually wind this out with a needle until they get one end in the eye of the needle. It takes several hours to get the worm out, and, if it breaks, several days, as, if broken, a good deal of suppuration follows.

Dr. Murchison said that the water carriers in Bengal, who carried water in skins on their backs, were especially liable to suffer from them. This confirmed the views mentioned by Dr. Harley as to the way in which the worm got into the body.

Dr. Broadbent once succeeded in taking part of a Guinea-worm, two feet in length, from a sailor. He had had several pieces taken away, but the worm had been always broken off. Each time the wound closed, and some time afterwards the worm appeared in another part of the leg.

Mr. Croft said that the experience of the Surgeons of the *Dreadnought* was in accordance with the views just expressed. He had seen several cases of the kind in sailors. They say that the natives get them by standing in bilge water. The sailors thought that they, too, got them in the same way.

Dr. Harley said that the gentleman who had given him the specimen said that the natives had them about the scrotum and anus. The fact, that they were in the habit of washing themselves after each act of micturition and defecation, tended to confirm the idea that they got into the body from contact with water, and not from drinking it.

Mr. Sydney Jones then showed a specimen of

PUNCTURED WOUND OF THE SKULL.

The patient, a woman, had been struck on the head by her husband with a heavy shell. For a week after the injury she had no head symptoms at all, and kept at her work. On the eighth day she had pain in the right thigh, knee, and calf. When seen by a Medical man there was suppuration. After death, pus was found in the knee-joint, and in the muscles of the thigh and calf. There was none elsewhere. On examining the head, the skull was found to be punctured, the external table being, as usual, broken less than the internal. There were (Mr. Sydney Jones said) three points of interest in this case—1. That the patient had had no head symptoms, although there must have been considerable depression. 2. That she died of pyæmia. 3. The question as to whether the pyæmia arose from the wound in the bone, or from a suppurated sebaceous tumour, which was ruptured by the blow. This point was raised at the trial of the husband for manslaughter. The veins of the diploe were filled with pus.

In reply to Mr. Nunn, Mr. Sydney Jones said there was clear evidence that the tumour on the head contained pus, as matter was observed by the friends when the blow was given.

Mr. Lee said that he had recently seen a case so like this, that, from the general facts of the case, he should have thought it the same. A woman was struck on the head by her husband, and was treated as an out-patient at one of the Hospitals for some time. She called on him one morning, and finding that she had an inflamed arm, which he considered to be secondary, he advised her to apply for admission at St. George's Hospital. On inquiry about her a few months after, he heard that she had died of pyæmia, and that her husband had been tried for manslaughter.

Mr. Sydney Jones also exhibited a specimen of

NECROSIS OF THE OCCIPITAL BONE.

The interest in this case was, that there were no cerebral symptoms whatever, although a considerable part of the inner as well as of the outer table was removed. Seventeen months before Mr. Jones saw him, the boy had fallen on a sharp edge, which produced a lacerated wound. This was followed by suppuration, and exposure of the outer table. Finding that the bone was loose, Mr. Jones removed it. It turned out that not only the outer, but a considerable extent of the inner table was removed. It corresponded exactly to the position of the lateral sinus, and to the torcular Herophili. There had been no constitutional symptoms at any time. The wound was healing.

Mr. Christopher Heath showed

A SERIES OF RECURRENT FIBROID TUMOURS,

which had been removed from a patient of Mr. Holt in the Westminster Hospital. The disease first appeared nine years ago in the young woman's hand, and was removed, but soon returning, amputation of the forearm was performed. In January, 1861, she came under Mr. Holt's care with a tumour on the inner side of the elbow, when amputation at the shoulder-joint was performed. In May, 1862, a tumour appeared in the cicatrix of the amputation, which was removed successfully, but another appeared in the axilla in October, which was also removed. The three last tumours (which were exhibited) were of the recurrent fibroid character, and the nature of the primary disease was probably the same. Another tumour, having appeared over the pectoral muscle within a few days, was removed by Mr. Holt on the day of exhibition, and was of a somewhat softer consistence than the previous growths. Mr. Heath considered it a remarkable instance of the inveterate tendency to recur, so characteristic of the disease, and remarked how little effect it had upon the general health of the patient, who, in this case, was a remarkably fine, robust country girl.

After some remarks by the President on the interest of this specimen,

Mr. Hulke said that, seven or eight years ago, Mr. Partridge removed a fibroid tumour from the leg of a patient. Since, Mr. Partridge had removed tumours from the same place five times, and he (Mr. Hulke) had removed them twice. On the last occasion the tumour presented all the appearance of medullary cancer.

Mr. Heath also exhibited a piece of

GUTTA-PERCHA BOUGIE REMOVED FROM THE BLADDER.

It was three inches and a-half long, and tapering to a point. This having been broken into a stricture by the patient, had been pushed into the bladder in attempts to relieve retention two months before Mr. Heath saw the case. The bougie was detected with the sound, and was then removed per urethram by means of a scoop lithotrite, the stricture having been previously dilated by Mr. Holt's instrument. A very trifling phosphatic deposit had taken place on the bougie.

Dr. Wilks brought forward a specimen from a

CASE OF EMBOLISM.

J. W., aged 32, a gentleman's coachman, first consulted Mr. Bisshopp, of South Lambeth, on March 25, for a painful swelling in the bend of the right elbow. He was ill, and obliged to give up work, when, in three weeks, it slowly disappeared. On June 5, he was seized with pain and swelling in the left knee, and it was then found that he was suffering from disease of the heart. At the end of the month he again resumed work, when, on July 21, he was again seized with pain in the right leg. The limb became hot and tender, and moved with difficulty. There was great constitutional disturbance, and he became thin and weak. Sores appeared on the leg, and he was sent to Guy's Hospital, and placed under Dr. Wilks' care. The femoral artery was felt to be impervious, and the case was considered to be a clear one of embolism. The toes subsequently became gangrenous, and the man at last died suddenly. At the autopsy, the aortic valves were found much diseased and covered with vegetations, whilst the femoral and profunda arteries were closed by fibrin; at the junction of the vessels was a portion distinct from the rest, and which had, no doubt, been carried there.

The case (Dr. Wilks said) was clearly one of embolism, as regarded the plugging of the artery by a fibrinous vegetation swept from the valves of the heart; but the symptoms from which the patient had previously suffered were, no doubt, due to a lesser amount of fibrinous material being carried through the system. He believed, therefore, that the latter condition differed only from the former in degree, and that, just as regards pyæmia, or infection of the blood by purulent matter on the venous side of the system, two theories exist as to the manner in which the blood is contaminated—the one referring to a spontaneous change, and the other to infection from a local source; so, on the arterial side of the system, the deposition of fibrin may be said to begin either in the blood itself or in a local cause,—only, in the latter case, the source, being central, is hidden. Just also, as in the case of pyæmia, the symptoms, or death, may be due to the contamination of the blood, or to the implication of some important organ; so, on the arterial side, the symptoms and

death may be due to the changed condition of the blood, or to the affection of some organ. In the first place, the symptoms resemble those of typhus fever, with the addition of painful and swollen joints, and, after death, the only morbid appearances found are in the capillary systems of the viscera; whilst in other cases, from the plugging of larger vessels, a fatal result may occur in a more definite manner. Dr. Wilks did not think the two conditions should be considered as differing, as was the opinion of some, but that they were identical. Dr. Wilks thought that the latter condition, that of increased amount of fibrin circulating in the blood, might arise spontaneously, but that it did arise most frequently from a local source, and was, in fact, the same condition as that known as embolism, only, not affecting any larger blood-vessel, it produced symptoms of a constitutional kind, instead of local. The present case, where both kinds existed, showed that the two forms were identical.

The President said that he had recently seen a case of gangrene of the leg depending on femoral phlebitis and arteritis. There was disease both of the artery and vein, and coagula in both. He had, many years ago, in print, directed attention to occlusion of arteries and veins from purulent infections.

Mr. Henry Lee said that he had seen a patient under the care of Dr. Todd, who was admitted for extreme difficulty of breathing. Then gangrene of the left leg came on. After death this was found to be due to plugging of the popliteal artery. There was a large mass of soft fibrine in the left side of the heart.

Dr. Harley said that the case brought forward by Dr. Wilks was one of great interest, but he had some difficulty in understanding his explanation of it. He wished to know if the fibrinous deposits in the spleen and other organs were situated in the parenchyma, or in the vessels of the part?

Dr. Leared said that, in disease of the heart, from sluggish circulation, deposits of fibrinous matter would be more likely to take place, independently of actual carrying of vegetations and clots.

Dr. Hare said that Dr. Wilks had, no doubt, described a pathological condition which often existed; but he thought that the term "embolism" ought to be kept for cases in which something was carried to the vessel occluded. In the cases spoken of by Dr. Wilks, there was a condition of the blood which was called hyperinosis, and hence deposits in the spleen, from excess of fibrine in the blood. This was, however, a different thing to the plugging of an artery.

Dr. Murchison, without expressing any decided opinion, wished to mention that he had dissected ten or twelve cases in which there had been marked symptoms of plugging, as hemiplegia, gangrene of a limb, etc., and he had invariably found deposits in the spleen, etc., as well as in the arteries.

Dr. Wilks said that he meant to imply that it was simply a question of degree, whether a large vessel should be plugged, giving rise to marked symptoms, as gangrene of a limb, or whether, finer, smaller particles being carried, and smaller vessels being obstructed, deposits should occur, as in the spleen.

Dr. Wilks also showed a specimen of

CIRRHOSIS OF THE LIVER IN A CHILD.

This case occurred in the practice of Mr. Roper, of Shoreditch. The patient was a boy eleven years of age. For about a year and a-half before his death, he had suffered with pain on the right side, and at one time was jaundiced, the skin continuing always of a yellow tinge. The details of his long illness were not known, as Mr. Roper was only called in at his death. The post-mortem examination showed acute peritonitis, but there was not much fluid in the abdomen. The liver had undergone a remarkable change, being nodulated over its whole surface, as in the most extreme forms of cirrhosis. The intervening tissue was not only composed of atrophied hepatic tissue, but of an adventitious, dense, fibrous structure. The great feature of interest in the case had reference to the question, whether intemperance was not almost the sole cause of cirrhosis of the liver. The fact of a child having the disease is of the greatest importance in determining an answer, since, if it could be shown that the patient had lived after the ordinary manner of childhood, it would be in itself a sufficient proof of other causes being in operation to produce the disease besides alcohol; whereas, if the child had, under exceptional circumstances, been habituated to spirits, it would prove, almost to demonstration, the universality of the cause believed to give rise to it. In the present instance unfortunately no decision can be arrived at. The boy accompanied his father as an itinerant chair-mender, and was accustomed to a "little gin and water once or twice a-week." Whether this acted powerfully on the more tender organ of the boy, or whether it was altogether without influence, must remain uncertain. The importance, however, of a good history in such a case cannot be exaggerated.

Mr. William Adams said that he had recorded a case of cirrhosis of the liver in a child in the Society's *Transactions*. The child had been an inmate of an orphan school. She died suddenly of pulmonary apoplexy. In this case there could be no suspicion of gin-drinking. In cases of cirrhosis he had found, on section, projecting groups of acini; but in the livers of persons who had been, to his own knowledge, notorious drinkers, he found that the liver was hard on section, and the surface was even and glossy.

Dr. Gibb exhibited drawings of

POLYPOID GROWTHS, REMOVED FROM WITHIN THE LARYNX

of a gentleman, aged 37, who had been subject to hoarseness and varying loss of voice for more than twelve years, supervening upon an attack of yellow fever in the West Indies. He was treated for this by mercury, was profusely salivated, and recovered with permanent hoarseness. In the open air, he spoke only in a whisper; in-doors, the voice was stronger, and possessed a rough, laryngeal sound. He had been under every variety of treatment for many years without any benefit, as the true nature of his malady was never made out, until examined by the laryngoscope by Dr. Gibb, who found two pedunculated tumours attached to the anterior part of the vocal cords, nearly as large as peas. They were successfully removed with good results by the aid of the laryngeal mirror, and were found to be epithelial in character. The *laryngeal ecraseur*, devised by Dr. Gibb, and manufactured for him by Messrs. Weiss and Son, in the Strand, was found admirably to answer its desired purpose.

Dr. Gibb also showed a

DRAWING, MADE BY THE AID OF THE RHINOSCOPIC MIRROR, OF ULCERATION OF THE MEMBRANE COVERING THE TURBINATED BONES, THE CAUSE OF EPISTAXIS FOR THIRTEEN YEARS,

in a delicate looking girl, aged 17. She had had pertussis, rubeola, and scarlatina, when 4 years old; after the last, she became subject to epistaxis, which remained persistent, occurring daily, from both nostrils, but more from the left. The catamenia commenced seven months ago. Rhinoscopy was difficult on account of the contraction of the velum palati from the scarlatinal angina (no doubt attended with ulceration, as cicatrices were seen here and there), yet it was performed, and showed very red and vascular ulcers on the posterior surfaces of both inferior turbinated bones, which gave rise to the bleeding which had blanched the patient. Topical treatment here, and attention to the general health, were the measures relied upon to bring about a cure.

MEDICAL NEWS.

University of St. Andrews.—Honour List.—November 18, 1862.

First Class.—John F. Nicholls, Devizes, and Charles A. Waterworth, Isle of Wight,—equal.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 20th inst., viz:—

John Henry Wood, Ledbury, Herefordshire; Richard Turner, Pentreheylin, Oswestry; Gwynne Henry Harries, L.S.A., Haverfordwest; Matthew Bloxam, L.S.A., Duke-street, Grosvenor-square; John Beddoe Morgan Evans, Haverfordwest; William Alfred Elliston, L.S.A., Ipswich; Ebenezer Mark Thompson, L.S.A., Billinghay, Lincolnshire; Alfred Harris, York-terrace, Commercial-road East.

Naval Surgeons.—The following Members of the Royal College of Surgeons passed their Examinations for Naval Surgeons last week, viz.:—

Peter Williams Rolston, of H.M.S. *Fox*, Woolwich, diploma of Membership dated May 6, 1853; John Wilson Dobbin, of H.M.S. *Dromedary*, Woolwich, June 3, 1854; Martin Magill, of H.M.S. *Russell*, Falmouth, June 6, 1856; Maxwell Rodgers, of H.M.S. *Royal Adelaide*, Plymouth, May 8, 1857; Bradley Gregory, of H.M.S. *Sutlej*, Portsmouth, April 11, 1859.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 20, 1862:—

Frederick Augustus Palmer Hains, Totnes; William Henry Kempster, Battersea; William Henry Fleetwood Buckle, Royal Mint, London.

APPOINTMENTS.

BUCKLEY.—John Buckley, Acting Assistant-Surgeon R.N., has been appointed to the *Royal Adelaide* for Plymouth Hospital.

DROSIER.—William Henry Drosier, M.D. Cantab. (Caius College), has been appointed Assistant to the Professor of Chemistry, University of Cambridge.

DUTTON.—Douglas John Dutton, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the Union Workhouse and District No. 1 of the Dursley Union, Gloucestershire, *vice* George Leonard, M.R.C.S. Eng., L.S.A. Loud., resigned.

GRANT.—Civil Assistant-Surgeon Grant, Indian Service, has been confirmed in appointment as Civil Assistant-Surgeon of Futtehgurh.

HAVILAND.—Henry James Haviland, M.D. Univ. Camb. (Pembroke College), has been appointed Assistant to the Regius Professor of Medicine, University of Cambridge.

HORROCKS.—John Horrocks, M.D., Acting Assistant-Surgeon R.N., has been appointed to the *Victory* for Haslar Hospital.

HUMPHRY.—George Murray Humphry, M.D. Univ. Camb., F.R.C.S. Eng. (Hon.), L.S.A. Lond., F.R.S. (Downing College), has been appointed Assistant to the Professor of Anatomy, University of Cambridge.

JAMES.—William Withal James, F.R.C.S. Eng. (exam.), L.S.A. Lond., L.M. Dub., has been appointed Surgeon to the Devon County Prisons, at Exeter, *vice* Charles Knighton Webb, M.R.C.S. Eng., L.S.A. Lond., deceased.

JOB.—Samuel Job, M.R.C.S. Eng., L.S.A. Lond., has been appointed Surgeon to the Newark-upon-Trent Dispensary and Hospital, *vice* Frederick Hodgkinsou, M.R.C.S. Eng., L.S.A. Lond.

JOHNSON.—Assistant-Surgeon C. Johnson, Indian Service, has been posted to the 13th (the Shekhawattee) Native Infantry, at Gorrackpore, *vice* Daniell, deceased.

LAMBERT.—John Lambert, Acting Assistant-Surgeon R.N., has been appointed to the *Victory* for Haslar Hospital.

LEAHY.—James W. Leahy, Assistant-Surgeon R.N. July 25, 1856, has been appointed to the *Wellesley* (additional).

LEE.—Frederick Fawson Lee, M.R.C.S. Eng., L.S.A. Lond., has been elected House-Surgeon and Apothecary to the Salisbury General Infirmary, *vice* Fitz Roy Philip Darke, M.R.C.S. Eng., L.S.A. Lond., resigned.

LESTOURGEON.—Charles Lestourgeon, F.R.C.S. Eng. (Hon.), L.S.A. Lond. (Trinity Coll.), has been appointed Assistant to the Downing Professor of Medicine, University of Cambridge.

MOSES.—Mr. William R. Moses, has been appointed Dispenser to the South Staffordshire General Hospital, at Wolverhampton, *vice* Mr. William Hartley, resigned.

NEWETT.—Robert Hudson Newett, L.R.C.S. Edin., and L.M., has been elected Medical Officer and Public Vaccinator for the Louisburgh Dispensary District of the Westport Union, Co. Mayo, *vice* John Pitt Harris, L.R.C.P. Edin., F.R.C.S. Irel., L.M. Coombe Lying-in Hospital, Dublin, LL.D. Trin. Coll. Dub., appointed to the Newport Dispensary District of the Nenagh Union.

O'KELLY.—Dr. Martin T. O'Kelly has been appointed Physician to the Clongowes College, Co. Kildare, *vice* Christopher Clarke, A.B. and M.B. Trin. Coll. Dub., M.R.C.S. Eng., L.M. West Lying-in Hospital, Dublin, deceased.

ORTON.—Charles Orton, M.R.C.S. Eng., L.S.A. Lond., has been elected House-Surgeon and Apothecary to the North Staffordshire Infirmary, Etruria, Stoke-upon-Trent, *vice* Charles Parsons, M.R.C.S. Eng., L.S.A. Lond., resigned.

PHELAN.—William Bernard Phelan, L.R.C.P. Edin., L.R.C.S. Edin, L.M. Rot. Hosp., Dublin, has been elected Medical Officer for the Kilmaganny Dispensary District, Callan Union, Co. Kilkenny, *vice* Dr. T. W. Shiell, appointed one of the Medical Staff of the Maryborough Lunatic Asylum.

PLANK.—Assistant-Surgeon C. Plank, Indian Service, has been confirmed in the appointment of Superintendent of the Central Prison at Agra.

RODGERS.—Maxwell Rodgers, M.D. Univ. Glasg., M.R.C.S. Eng., Assistant-Surgeon R.N., has been appointed to the *Royal Adelaide* (additional).

SHIELL.—Thomas Wildridge Shiell, M.B. Univ. Trin. Coll. Dub., L.R.C.S. Irel., appointed one of the Medical Staff of the Maryborough Lunatic Asylum, Queen's County.

SKEGG.—Robert Skegg, L.R.C.P. Edin., M.R.C.S.E., and L.S.A., has been elected Medical Officer to the Union House of St. Martin's, Westminster.

SWANTON.—James Robert Swanton, M.D. Queen's Univ. Irel., L.R.C.S. Edin., Ex. Schol. Queen's Coll., Cork, has been elected Medical Officer and Public Vaccinator for the Glengarriff Dispensary District, Bantry Union, Co. Cork, *vice* Abraham John Tuckey, M.D. Univ. Edin., M.R.C.S. Eng., L.A.H. Dub., resigned on being appointed to the Bantry Dispensary District, Bantry Union.

THOMSON.—Allen Thomson, M.D. Univ. Edin., F.R.C.S. Edin., has been elected on the Council of the Philosophical Society of Glasgow for 1862-3.

TOMKYNS.—Assistant-Surgeon A. P. Tomkyns, Indian Service (North-West Provinces), has been confirmed in the appointment of Superintendent of Central Prison at Bareilly.

TUCKEY.—Abraham John Tuckey, M.D. Univ. Edin., M.R.C.S. Eng., L.A.H. Dub., has been appointed to the Bantry Dispensary District, Bantry Union.

TURNBULL.—Dr. Rutherfoord Turnbull, has been appointed Medical Officer 3rd District of St. Cuthbert's Parish, Edinburgh.

WALKER.—Assistant-Surgeon W. Walker, M.D., Indian Service (North-West Provinces), has been confirmed in the appointment of Superintendent of the Government Press, and Curator of Government Books.

WHYTE.—George Whyte, M.D., L.M., has been appointed House-Surgeon to Gray's Hospital, Elgin, *vice* Mr. Moir, L.R.C.S. Edin., resigned.

WOOD.—William Wood, M.D., has been appointed Medical Officer for the Yorkshire District of the Lancashire and Yorkshire Railway Company.

YULE.—Alexander Yule, M.D. and M.C. Univ. Aberd., Acting Assistant-Surgeon R.N., has been appointed to the *Royal Adelaide* for Plymouth Hospital.

DEATHS.

BROOK.—November 19, William Henry Brook, of Lincoln, M.R.C.S. Eng., L.S.A. Lond., aged 56.

DANIELL.—Recently, H. R. Daniell, Assistant-Surgeon to the 13th (the Shekhawattee) Native Infantry at Gorrackpore.

DE BURGH.—November 18, at Rathmullen, Co. Donegal, Walter de Burgh, of Sandymount, Co. Dublin, L.K.Q.C.P. Irel., L.R.C.S. Irel., aged 28.

DILL.—November 23, at Fethard, County Tipperary, the Rev. Edward Marcus Dill, A.M., M.D., Presbyterian Minister of Clonakilty, aged 48.

EDWARD.—November 20, after a lingering illness, James Edward, of Forfar, M.D. Erlangen, L.R.C.S. Edin, and L.M.

GIBSON.—November 17, at Hyeres, Thomas Gibson, of Rothesay, Bute, M.D. Univ. Glasg., L.F.P.S. Glasg., F.R.C.S. Edin.

GREGG.—November 19, at Oakville, Charleville, John Glover Gregg, of Bandon, Co. Cork, M.D. Univ. Ediu., M.R.C.S. Eng., Surgeon South Cork Light Infantry.

GRIEVE.—November 9, James Grieve, of Dumfries, M.D. Univ. Edin., L.R.C.S. Edin., Physician to the Dumfries and Galloway Royal Infirmary.

JAGO.—November 19, Francis Robert Jago, of Trejago, Hammersmith (in practice prior to 1815), Surgeon R.N., seniority September 27, 1809, aged 75.

MADDOCK.—November 18, Alfred Beaumont Maddock, of 56, Curzon-street, May Fair, and Upper Sydenham, Kent, M.D. Giessen, M.D. Philadelphia, M.D. et Chir. Rostock, Prussia (exam.), aged 47.

MCDONNELL.—November 24, Alexander McDonnell, of No. 10, Upper Temple-street, Dublin, and Ballinlig, Glenariff, Co. Dublin, A.B. Trin. Coll. Dub., L.K.Q.C.P. Irel., F.R.C.S. Irel. (exam.)

MEYLER.—November 15, William Morgan Meyler, of Ashmeade House, Gloucester, M.R.C.S. Eng. (in practice prior to August, 1815), aged 74. He was one of the senior Magistrates of the City, and had twice filled the office of Mayor.

RUSSELL.—November 21, suddenly, after a long illness, at No. 15, Lynedoch-place, Edinburgh, James Russell, M.D.

LONDON GAZETTE.

November 21.

17TH FOOT.—Staff Surgeon Edward B. Tuson to be Surgeon, *vice* J. E. Clutterbuck, M.D., who exchanges; dated November 21, 1862.

77TH FOOT.—Staff Assistant-Surgeon George Farr White to be Assistant-Surgeon, *vice* Humfrey, appointed to the Staff; dated November 21, 1862.

MEDICAL DEPARTMENT.—Surgeon James Edmund Clutterbuck, M.D., from 17th Foot, to be Staff Surgeon, *vice* Tuson, who exchanges; dated November 21, 1862.

Assistant-Surgeon Alexander Humfrey, from 77th Foot, to be Staff Assistant-Surgeon, *vice* White, appointed to the 77th Foot; dated November 21, 1862.

To be Staff Assistant-Surgeons, the antedate not to carry back pay prior to August 1, 1862:—Emil Becher, M.D., dated February 13, 1855; John Ross Murray, M.D., Thomas Parker Smith, M.B., John Dustan, Gent., John Elliott, Gent., Acheson George Bartley, M.D., Henry Frank Hensman, Gent., William James Tyrrell, Gent., John Barlow Hannah, M.D., William Pile, M.B., Thomas Cecil Morgan, Gent., Richard Patrick Furguson, Gent., Thomas Dodd Milburn, Gent., Alexander Ferrier Churchill, M.D., John Stannard McAdam, Gent., Edward Nicholson, Gent., and Richard Jones Owen, M.D., all the above dated March 31, 1862.

BENGAL ARMY.—Assistant-Surgeon Robert Kemp Buckell to be Surgeon, *vice* Batson, retired; dated August 27, 1862.

BOMBAY.—Assistant-Surgeon John Frederick Steinhauser to be Surgeon, *vice* Scott, retired; dated June 4, 1862.

Assistant-Surgeon Frederick William Harris to be Surgeon, *vice* Collier, retired; dated June 12, 1862.

Assistant-Surgeon James Macadam Hyslop, M.D., to be Surgeon, *vice* Deas, deceased; dated September 18, 1862.

Surgeon Mark Style to be Surgeon-Major; dated August 10, 1862.

Surgeon John Peet, M.D., to be Surgeon-Major; dated June 8, 1862.

3RD ADMINISTRATIVE BATTALION OF SURREY RIFLE VOLUNTEERS.—Andrew Sisson, Esq., to be Surgeon; dated November 14, 1862.

2ND MIDDLESEX ARTILLERY VOLUNTEER CORPS.—The Queen has been graciously pleased to accept the resignation of the commission held in this corps by Assistant-Surgeon Evan Llewellyn; letter of acceptance November 15, 1862.

3RD BATTALION KENT RIFLE VOLUNTEERS.—William Hoar, Gent., to be Surgeon, *vice* Fry, resigned; dated November 13, 1862.

1ST KENT RIFLE VOLUNTEER CORPS.—George Sankey, Gent., to be Assistant-Surgeon, *vice* Hoar, resigned; dated November 13, 1862.

November 25.

The Queen has been pleased to appoint Cæsar Henry Hawkins, Esq., F.R.S., to be one of her Majesty's Serjeant-Surgeons in Ordinary, in the room of Sir Benjamin Collins Brodie, Bart., deceased.

The Queen has been pleased to appoint James Moncrieff Arnott, Esq., F.R.S., to be Surgeon Extraordinary to her Majesty.

The Queen has been pleased to appoint Richard Quain, Esq., F.R.S., to be Surgeon Extraordinary to her Majesty.

MR. R. BEAMISH, F.R.S., has been giving lectures on the "Hand" to a working men's club at Cheltenham. The lectures were full of interesting ethnological matter.

National Dental Hospital, Great Portland-street, W.—The First Annual Meeting of this useful charity was held in the committee-room of the institution, on Monday evening last; Dr. B. W. Richardson in the chair. The Treasurer's report showed that the funds of the institution were in a satisfactory state, and had enabled the Committee to meet the heavy expenses attending its first establishment. 2020 patients had attended at the Hospital during the year, the majority of whom could not have received the kind of treatment which their cases required but for the existence of such an institution. The Committee referred to the great loss they had sustained in the death of the founder, the late Mr. James Robinson, and trusted that the subscribers would continue their exertions to secure the permanent success of the institution.

Prize Essay on Mineral Waters of Scotland.—Some time ago, a prize was offered by the Royal College of Physicians of Edinburgh for the best essay on the "Mineral Waters of Scotland." This has been recently awarded to Dr. Murray Thomson. We believe we are entitled to speak of Dr. Thomson's labours as constituting, in many respects, a considerable advance upon all that has been previously accomplished or attempted among us. He has made new and original analyses of all our mineral springs of repute, classifying them according to their composition and medicinal actions; and has added many scarcely less valuable particulars regarding the climate, situation, accessibility, and economic and recreative resources of their various localities, such as he has been able to glean by inquiry and inspection on the spot.—*From the Scotsman of Wednesday, Nov.* 19.

Presentation of an Address to Dr. Macfarlane.—On Saturday afternoon, a meeting of gentlemen belonging to the Medical Profession in Glasgow and the west of Scotland, was held in the Faculty Hall, St. Vincent-street, for the purpose of presenting to Dr. Macfarlane, on his retirement from the active duties of life, an address embodying the feelings of respect entertained for him by the Profession at large. The meeting was numerously attended, and was presided over by Dr. Lyon; besides whom there were present—Drs. Ritchie, Rainy, Watson, Fleming, Easton, A. D. Anderson, Thos. Watson, Bell, Josh. Paterson, Fraser, Coats, Morton, E. Watson, Geo. M'Leod, J. G. Wilson, J. Stewart, Steven, Mackintosh of Gartnavel, Dewar, Ronald, T. M. S. Anderson, Dunlop, Howatt, Geo. M'Ewan, Scott, Orr, and many others. The country Practitioners were represented by Drs. Espie, Falkirk; Skene, M'Dowall, Walker, and Brown, Helensburgh; Stewart, Coatbridge; Taylor and Graham, Paisley; Maclaren, Johnstone, etc. The address was enclosed in a very handsome gold box, chastely ornamented, and bearing the following inscription:—"On his retirement from public life, the enclosed address, expressive of their esteem and affection, was presented by a numerous body of the Medical Practitioners of Glasgow and the west of Scotland to Dr. John Macfarlane, lately Professor of the Practice of Medicine in the University of Glasgow.—September 25, 1862."

Junior Medical Society.—At a meeting of the above Society, held at Guy's Hospital, on November 18, the following gentlemen were elected as officers for the ensuing year:—*President*—Dr. Deck, St. Thomas's Hospital. *Vice-Presidents*—Mr. W. Travers, Charing-cross Hospital; Mr. — Stevenson, Guy's Hospital; Mr. H. Smith, King's College Hospital; Dr. Harvey, St. George's Hospital; Dr. Clapton, St. Thomas's Hospital; Mr. J. T. Jones, University College Hospital; and Mr. C. Heath, Westminster Hospital. *Treasurer*—Mr. S. G. Freeman, St. George's Hospital. *Honorary Secretaries*—Mr. F. H. Gervis, St. Thomas's Hospital, and Mr. H. R. Hatherley, Westminster Hospital. *Members of Council*—Messrs. F. W. Cooper and E. A. Browne, Charing-cross Hospital; Messrs. — Elliston and R. H. Pye Smith, Guy's Hospital; Messrs. T. Morton and W. Kempthorne, King's College Hospital; Mr. T. Pick, St. George's Hospital; Mr. W. Bingley, University College Hospital; and Mr. A. Watts, Westminster Hospital. Mr. Pye Smith then proceeded to read a paper on the "Modifications of Disease, induced by the Tissues Affected," in which, after stating that those diseases which our ignorance still compels us to call functional were necessarily excluded from consideration, divided structural diseases into—Inflammations, with their consequences; deposits, not preceded by inflammation; and new growths, or deposits, endowed with independent life. Illustrations of the subject under discussion were drawn from the hypertrophy, atrophy, and repair of different organs; and the peculiarities of the catarrhal, adhesive, purulent, and granular forms of inflammation were referred to their occurrence in mucous surfaces, serous membranes, and certain solid organs respectively. Having considered the various deposits (including tubercle) from this point of view, the author proceeded to apply the same principle to the classification of tumours, which ought, he considered, to be based upon two criteria—the tendency to rapid cell-formation, determining the greater or less "malignancy," and the tissues in which the primary growth arose—its anatomical characters. The paper was illustrated by diagrams and pathological specimens from the museum. An interesting discussion then followed, in which Messrs. Dixon, Deck, Gedge, Carter, Stevenson, and Bingley took part. The reader of the paper having replied, the meeting adjourned.

Catholic University of Ireland.—On Tuesday, the 4th inst., the Faculty of Medicine commenced its eighth session by an inaugural lecture from Dr. Quinlan, Dean of the Faculty. The tone of the Doctor's address was gratulatory as to the success of that particular Institution, and it contained some valuable practical remarks on the right teaching of Medicine. "The University," he said, "now stands forth a spectacle of prosperous efficiency gratifying to the feelings of her most enthusiastic well-wishers. We began with thirty-six pupils, and our number then increased to forty-six. In the following session it was sixty-nine. It next rose to eighty-eight; it then mounted up to a hundred and one; and during the past session I am glad to say that we had a hundred and four anatomical students. Ninety of them are now inscribed as qualified Medical Practitioners in the Official Register of these kingdoms. In the public service are thirty-six of our former pupils—fourteen of whom are engaged as Assistant-Surgeons in the British army, having all entered under the competitive system, and several of them having obtained very high places; sixteen hold the same rank in the British navy; and the rest, six in number, are occupied in the Oriental and emigration service. The munificent liberality of Mr. John Connolly, of this city, has placed at the disposal of the Rector the sum of £1000, for the encouragement of science and learning, to be distributed in ten annual sums of £100 each for the foundation of exhibitions on the competitive system. It has been determined to divide each annual sum into five exhibitions of £20 each—two for science, two for literature, and one for Medicine." Speaking of Medical examinations, the learned Doctor said, "Not many years ago most of these examinations were strictly oral. A great change for the better is gradually but surely taking place, and the movement is being followed up in the most enlightened spirit by several of the licensing bodies in this country, and upon the other side of the channel. Anatomical, pharmaceutical, and other specimens, together with operations upon the dead subject, have of late years been introduced into Medical examinations; and I trust that the time is not far distant when all candidates for Medical and Surgical diplomas will, in addition to being theoretically examined, have an opportunity of displaying their practical knowledge of Medicine and Surgery at the bedside, when they will be called upon to perform surgical operations, to make anatomical and pathological researches upon the dead subject, to conduct analyses, to verify specimens, and, in short, to prove that they are practically as well as theoretically qualified to act where the lives or health of others are concerned." After a minute and most excellent account of the respective values of the scientific and practical parts of Medical education, the necessity of language, mathematics, and natural philosophy, as precursors to purely Medical duties, which our space alone forbids us from transferring to our pages, the Doctor concluded with an eloquent peroration on the future of Ireland. "A great future is opening upon Ireland—a future intellectual as well as material, and one which will recompense her children for ages of patiently-endured trial and difficulty. Let us hope that the period is approaching when all Irishmen will recollect that they are Irishmen, and will throw aside those differences which have so long been fomented by those who divided in order that they might overcome. The Catholic University is not an aggressive institution. We desire to interfere with no one; on the contrary, we rejoice to see others legitimately exercising that right of free education which we claim and exercise for ourselves. For myself, I can only say that, before this University was founded, in common with several other Catholics, I received

my academic education in the halls of our elder sister the University of Dublin, and that I have carried from those halls the most grateful recollection of the kindness and courtesy which I experienced there. Let us hope that such will always be the mutual feeling, and that the time will come when the University of Dublin and the Catholic University of Ireland will, in their respective walks, accomplish something worthy of their reputation for this long-suffering country, for which, up to the present, God has done so much and man so little."

DR. STOKES ON THE STUDY OF EPIDEMICS.—The following extract is from Dr. Stokes' admirable Introductory Lecture, on the occasion of opening the Session 1862-63, at the Meath Hospital and County of Dublin Infirmary:—"What we do know of these mysterious phenomena may be thus stated:—That, although having certain characteristics which are common to all, they exhibit marked and special differences. Thus, the plague differs from cholera, cholera from typhus, and so on. That they are, in a greater or less degree, propagated by contagion. That epidemics of the same disease have not always the same characters. That their mortality is greater on their first outbreak in any locality. That they travel over vast distances, and, although they may arise in warm latitudes, they preserve their characters in cold ones; the cholera of Central India and of St. Petersburgh was the same disease. That their advent and disappearance are often sudden. That they are not symptomatic of any known anatomical change, but they often induce local diseases which are secondary to the general malady. That their symptoms are, to a great degree, under laws of periodicity. That, as far as we know, the disease is not to be met by any specific cure. That, as yet, all explanations of their origin are insufficient or obviously erroneous. Lastly, that anatomy only throws a negative light upon their nature, telling us rather what they are not than what they are. The plague of the Levant, which has preserved its character since the time of Thucydides, the black death, the sweating sickness, the typhus and yellow fevers, and the Asiatic cholera—in a word, the great causes of the wholesale destruction of man, act by some influence not yet discovered even by microscopic anatomy. So that we come to the strange conclusion, that the diseases most fatal to man are those least connected with organic change, which, when it is met with, is secondary, inconstant, and insufficient to explain their symptoms. Such is the present state of our knowledge; let us not be discouraged, but rather stimulated to further attempts to amend it. Now, we may ask, how is this great gap in physiological medicine to be filled up? Doubtless, the gradual advance of knowledge will render these questions easier of solution. In the meantime, there is no reason why we should not employ a well-directed system of observation, which, by the gradual accumulation and comparison of facts, would lead to great results. And here I wish to recall to your minds the proposal of Dr. Graves, made many years ago, which was, that the Governments of the various civilised nations should unite to establish Medical observatories in certain localities, in which, always in connection with a complete system of meteorological observations, careful records of the rise, progress, and character of isolated, endemic, and epidemic disease should be made. Were this design only carried out within the British empire, think to what a vast extent observations might be carried! Outside the United Kingdom stations might be established at Gibraltar, Malta, and Aden. India and Australia, combined, would give stations from the 43rd degree of south, to the 35th of north latitude; while New Zealand, Canada, Newfoundland, and New Columbia would be important stations. The organisation of these observatories might be very simple. At the head of each should be placed a Medical officer, who, should he require it, might be easily trained to the use of the various instruments employed in a complete system of meteorological observation. His duties would be confined to observation, to record, and to publication, and the less he was hampered by a central authority the better. This is not the place to enter into questions of detail; but a few words in reference to the instruments, which, in addition to those commonly used for meteorological research, should form part of the apparatus in these observatories, will not be amiss. The heated, or what has been called the sensation thermometer of Dr. Osborne should be one of them. It consists of an ordinary thermometer, prepared by being first heated to the temperature of the human body, and so, by observing the rate of its fall in different situations, we learn the cooling force in one locality as compared with another. The second instrument—first devised by Dalton, but improved by Professor Haughton—is intended to measure the evaporating power of the air. This, like the cooling force, is the result of several conditions, which may act in concert or be antagonistic, and much may be expected from the study of its action on the living body. Lastly, the influence of sunlight should be studied. We know little as yet of its effect upon disease; but when we remember how powerfully the organisation of animals and plants are affected by it, we may anticipate some valuable results. I may remind you here of the experiments of Edwards, which show how the tadpole, which, in its organisation, is a fish, is, by the effect of light, transformed into a frog, whose organisation is that of a reptile; and it is stated by St. Hilaire that the proportion of monstrous births, that is, of examples of arrested development in the dark cellars of Paris, is found to be very great."

THE SUPPOSED "FEATHERED REPTILE" A BIRD.—One of the largest meetings of the Royal Society we remember to have seen, was convened on Thursday, November 20. The attraction was Professor Owen's paper on the remarkable fossil feathered animal which has lately become part of the national collection. General Sabine, President of the Society, presided. The paper was entitled—"On the *Archæopteryx macrurus*." In his opening remarks, Professor Owen detailed the circumstances attending the discovery of the first evidence of the class birds in the Oxfordian strata, being the impression of a feather, which was described by Hermann Von Meyer, who termed it *Archæopteryx*. This name was retained for the present feathered animal. On November 9, 1861, Andreas Wagner communicated to the Mathematical and Physical Academy of Münich the account of the discovery of an animal with divergent fans of feathers, with which he had become acquainted, on the authority of M. Witte. Wagner termed this animal *Griphosaurus*, and unfortunately soon after died. Professor Owen communicated with the owner, M. Häberlein, of Pappenheim, whose collection Mr. Waterhouse was deputed to inspect, and ultimately to purchase. The ventral aspect of the specimen was exposed, the furculum marking the fore part of the trunk. It was one foot eight and a-half inches in length, and measured across, from the apex of the right to the left wing, one foot four inches. Near the anterior border of the impressions of the wings the stone was broken. The head may have been within this broken part. The ischium, showing the acetabulum, twenty caudal vertebræ, several ribs, the left scapula, proximal part of the left humerus, distal part of ditto, left radius, ulna and carpals, right humerus, radius, and ulna, two right metacarpals, and two ungual phalanges, right femur, right tibia, left femur, were preserved, as well as impressions of the quill feathers, and of down on the body; one clawbone belonging to the right digit of the wing was present, of which bone counterpart impressions exist. The vanes and even the shafts of the feathers can be distinctly seen by the naked eye. The furculum, pelvis, and bones of the tail are in their natural positions. The left scapula is displaced backwards; the left humerus outwards and a little forwards, as well as the antibrachium. The wing feathers diverge one inch in front of the carpus. The right humerus extends backwards, and the two metacarpals or proximal phalangeals are dislocated inwards. Fourteen long quill feathers diverge on each side of the metacarpal and phalangeal bones; the tibia extends outwards. The foot is contracted; the left femur is turned outwards. The feathers decrease in length from six inches to one inch; the anterior series of barbs are longest and obtusely rounded. The area covered by the diverging quills of the left wing is fourteen inches; by the right, eleven. The three posterior primaries are dislocated backwards; one primary is exquisitely preserved. The impressions of tail feathers number twenty, and succeed each other; the principal correspond in number on each side with the tail vertebræ. The length of the anterior tail feathers is one inch; at the end, five inches; the tail is eleven inches in length, and three and a-half in breadth, being obtusely truncated at the end. The wings have a general resemblance to those of the gallinaceous, or round-winged birds. The scapula resembles that of a bird, and was compared with the structure in *Pterodactylus Suevicus*, which was about the same size as *Archæopteryx*. The curved clavicle was two inches long. The scapula was two inches broad at the apex, the arch being open and round, not contracted, as in *Gallinaceæ*. No *Pterodactyle* had a furculum. The humerus, two inches ten lines in length, is sigmoidally flexed as in birds; it was six lines in breadth, and in contour

most like that of the *Corvidæ*. The humerus of the *Archæopteryx* closely resembles the form in many birds, as the penguin, the touraco, etc. The *Pterodactyle's* radius and ulna were equal in thickness; not so in *Archæopteryx*. A single carpal bone is shown on the left side; on the right a mass of spar occupies its place, but it is a doubtful indication. The form of the metacarpals agrees with those of birds; but if they be proximal phalanges, they differ, being more equal in length and thickness. There is the impression of a slender bone eleven lines long, like the basal part of an ungual phalanx: in advance, a bone supporting the penultimate phalanx, is seen in both slabs, being in appearance like the claw phalanx of raptorial birds. The hand, besides supporting the remiges of the wing, probably supported a digit with a small, though pointed claw. The structure of the hand otherwise agreed with birds, and similar claws or spurs exist in the *Parra jacana*, the *Palamedea*, the spur-winged goose, and the Syrian blackbird. The *Archæopteryx* differs from all known birds in having three or four digits in the hand. There was no trace of the fifth digit of the winged reptile. Of the pelvis, a bone on the left side was preserved, bearing a resemblance to the iliac bone of a bird, and with a sinuous border; its exposed surface was smooth and polished, and seven lines broad. The antero-interior surface of the ilium and the coalesced ischium terminate abruptly and obtusely, as in a young bird. The ischium, behind the acetabulum, shows a vacuity between itself and the pubis, the obturator foramen being as large as in birds. In the *Pterodactyle* the ilium is shorter, the ischium being sub-triangular, joining with the ilium. The sacrum was a confused mass of vertebræ, in which six or seven short transverse processes can be seen. The conditions under which the skeleton was found reminded Professor Owen of the carcase of a gull, which, after having been a prey to some carnivore, which had removed all the soft parts, and perhaps the head, had left nothing but the bony legs, and the indigestible quill feathers. The tarso-metatarsal, at its distal end, exhibited a trifid, trochlear, articular surface, supporting three toes. The shaft of the femur was long and thin, while a strong procnemial ridge was present on the tibia. The size of the procnemial ridge is variable in birds; in *Archæopteryx* it was as large as in *Falco trivirgatus* and in most *Volitores*. The thigh was longer than in the majority of birds. The proportions of the toes accord with the insessorial, and not with the scansorial type of foot. Few of the bones are in a condition to permit accurate comparison. The osseous remains have, between the two halves of the split slab, been exposed to the disintegrating action of the phosphate and carbonate of lime, and in their interior crystallised spar has been deposited. Each vertebra of the tail supports a pair of plumes. The fossil differed from all known existing birds in having a tail composed of twenty vertebræ. But the tail is essentially a variable character; there are long-tailed bats and short-tailed bats; long-tailed rodents and short-tailed rodents; long-tailed *Pterodactyles* and short-tailed *Pterodactyles*. It is now manifest that there existed, at the period of the deposition of the Oxfordian strata, a bird exhibiting the persistent embryonal or generalised character of the tail, as opposed to the specialised condition of the tails of existing birds, in which the terminal vertebræ have coalesced. All embryo birds exhibit the caudals distinct, as may be exemplified by the ostrich. The developmental process undergone by the bird is similar in nature to that through which the fish passes, in his transition from the heterocercal stage, through which he usually passes, to the homocercal. The probability of the presence of a single unguiculate digit, as in the wings of *Pteropus*, would, if demonstrated, exhibit a similar retention of an embryonal and transitory character. The *Archæopteryx* was unequivocally a bird; and, by the law of correlation, we might infer that it was destitute of fleshy lips, that its feathers were preened by a horny edentulous beak, and the shape of the breast-bone indicated an animal capable of flight. The President moved a vote of thanks; and, calling for remarks, the Duke of Argyll hoped that Mr. Gould would offer some opinion on the fossil. Mr. Gould, F.R.S., considered that the remains indicated a terrestrial form of bird, with wing feathers not adapted for flight, as in the *Apteryx*, or in the black rail of New Zealand. Had the hind foot alone been shown to any ornithologist, he would have been entitled to infer that it was a bird—a fact which Mr. Gould had doubted up to the previous day, but which he now felt constrained to admit. Dr. Carpenter, F.R.S., coincided in Professor Owen's remarks respecting the more generalised vertebrate type of the specimen, and remarked on the futility of negative evidence in geological discussion. Professor Owen pointed out that the shape of the pectoral ridge on the humerus indicated a bird who possessed the power to beat his wings down forcibly, and that the shape of the furculum also indicated a bird of flight. The black rail had no furculum. Mr. Gould adhered to his previous opinion. After the passing of a formal vote of thanks to Professor Owen, and the transaction of some other business, the Society adjourned.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We are compelled, by want of space, to postpone Dr. Ramsbotham's paper on "Clinical Midwifery," and Dr. Jackson's paper on the "Ophthalmoscope."

Protozoa.—Carpenter and Gamgee.

Mr. Bulley's very interesting case shall be inserted as soon as possible.

Kidneys.—German mineral waters are to be had of a dealer in Henrietta-street, Cavendish-square.

M. D.—Phosphorus is a medicine that has been recommended on speculative and theoretical grounds only, and, we believe, would disappoint expectations.

Norwich.—The inquiry into the cause of the sudden death of the sub-editor of the *Mercury* seems to have been very imperfect. There was no post-mortem examination. Our correspondent's suggestion, that death might have arisen from the bursting of an aneurism, is very likely correct.

Erratum.—P. 508, in the heading of Mr. Bruce's letter, for "The Cause of Insanity," *read* "A Claim of Priority."

The Alleged Poisoning at Ludwell.

(From a Correspondent.)

It will be seen, from the report of this case, that the magistrates have attempted to usurp the functions of the coroner by going on with an investigation into the causes of the death of Mrs. Kiddle, having based their inquiry upon an affidavit made by Dr. Shettle, and then issued a warrant for the apprehension and custody of the suspected individual, Mrs. Trowbridge, before the Coroner had even returned a verdict or concluded his inquiry.

In the country districts it is very openly expressed by the magistrates that coroners are very useless officers; but this case proves that, for the liberty of the subject, coroners are our great bulwarks; as the accused has been subject to three weeks' confinement and imprisonment on evidence which in the coroner's court would not have subjected her to more than the *surveillance* of the police authorities.

In the coroner's court, the evidence, as in the true Baconian philosophy, gradually leads one up to the conclusion of the guilt of the suspected party; but the magistrates can only commence proceedings by assuming the guilt of an individual on *ex parte* evidence of a very insufficient character, and then they issue a warrant for the apprehension of the accused; and, having caused them to be brought before them, they forthwith attempt to get up a case for their conviction, which, if failing, the party is simply dismissed, with the verdict, "not proven," "no case," etc.; but nothing can ever compensate them for the annoyance, inconvenience, and loss of character, produced by so unjustly depriving them of their liberty, and the loss of social position occasioned by the bare assumption of guilt.

It is really monstrous that such proceedings should be tolerated in this land of liberty. Country magistrates are petty tyrants in their districts, who act without the fear of any court of appeal, and in perfect independence, and usually care more for the safety of their rabbits and hares than for the liberty of the subject.

Fatty Coagula in the Urine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is very probable that the fatty mass described by Dr. Moriarty in your last number, consists of the "Urostealith," which is described in most works on Animal or Physiological Chemistry, but of the constitution of which we know very little. I am, &c. D.

A Legal Query.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you have the goodness to inform me in your next issue, whether an M.D. of the Queen's University, Ireland (registered according to the Act of August, 1858), practising in England, can recover, in a court of law, charges for Medical attendance, advice, and medicines for his patients?—and oblige

November 21. A Young M.D.

[He can recover the "cost of any medicines" supplied by him to his patients.—Ed.]

Chlorate of Potash in Syphilis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following case may be of interest to Dr. Drysdale and other of your readers, as showing the efficacy of chlorate of potash in syphilis.

Some months ago, when at the house of my relative, Mr. Dryland, of Kettering, I was shown a case of most obstinate sore throat, of undoubted syphilitic character, in a gentleman, one of Mr. D.'s patients. The throat was dark in colour, tumid, covered with a whitish secretion, and had slight superficial ulceration at some points: the tone of the voice was strongly nasal, and there was slight deafness. Mercury in various forms had been tried, nitrate of silver had been applied to the throat, and I believe iodide of potassium had been freely given, but no decided improvement had taken place under any of these measures; and, after persevering with them for several weeks, it struck Mr. Dryland to try the chlorate of

potash, and this medicine, he informed me, very soon effected a perfect and permanent cure. I am, &c.

JOHN C. THOROWGOOD, M.D.,
November. Physician to the Royal General Dispensary.

TREATMENT OF DIARRHŒA ADIPOSA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall be glad if any of your readers can render me assistance in the following case:—A friend of mine is suffering from unquestionable diarrhœa adiposa; and, as most Medical men are puzzled as to how to treat it, and no treatment has hitherto afforded any but the most temporary relief, the matter is getting serious. In other respects, excepting occasional dyspepsia, the patient is quite well, and gaining flesh, although carefully abstaining from all fatty foods. Little lumps of fat are passed almost every morning, preceded by abdominal pains, and a greater or less degree of general nausea, but no vomiting. I am, &c.

November 22. STUDENS.

THE DIAGNOSIS OF RENAL CALCULUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—One morning, at 2 a.m., I was summoned to a patient suffering from severe pain in the side and abdomen, accompanied by vomiting; pulse and temperature of skin normal; countenance expressive of suffering, but not of anxiety; the pain he attributed to a sudden muscular effort in stretching himself in bed, vomiting supervening directly. He stated that both testicles were retracted. He was ordered a full dose of Battley's sedative, to be repeated according to circumstances; warm bath and hot poultices; there had been no frequency of micturition. The following day great improvement permitted a more accurate examination. There was no previous history of gout, gravel, or rheumatism, and the general health had been excellent. There was some nausea, possibly the effect of three doses of Battley; the pain occupied a spot about the size of a florin, under the false ribs, a little posterior to the lateral line, increased by moderate pressure and motion, relieved by assuming the erect position; no pain in the back or along the spine; no retraction of the testicle, or numbness down the thigh; no frequency of micturition; urine perfectly natural; tongue rather furred; pulse and skin in a normal condition. He was thoroughly purged, and took a sedative at night; but the pain continued, though in a mitigated degree, for the next five days, when I lost sight of him. During that period there was a total absence of other symptoms, except inappetency, the urine maintaining a healthy character. Upon these data, would the diagnosis—passage of a calculus from the kidney, and impaction in the ureter—be admissible? I am, &c.

X.

SWOLLEN SCROTUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I think the following case, which occurred to me last year, may be of some interest to your readers, and may, at least, warn young Accoucheurs from a too meddlesome midwifery in doubtful cases:—

I was summoned, last November, by a qualified gentleman (whose subsequent departure from this country enables me, without hesitation, to publish the case), to Mrs. G., aged 26, residing near the Hampstead-road, in labour of her first child. The gentleman in attendance, whom I will call Mr. Z., informed me that she had had frequent pains during the greater part of the night, but that, as the waters had not broken, and as he was not satisfied about the presentation, he had divided the membranes with his penknife (!); but, on doing so, was surprised to find that little, if any, escape of waters took place. He had again endeavoured to ascertain the presentation, and, believing that it was a shoulder, had attempted to turn two or three times, without success.

On making my examination I was surprised to find a large protruding bag, which seemed to fill up the vagina. On carefully exploring the tumour surface, I found there was one place into which the finger sank with ease, but it was apparently of no great depth or extent. After some degree of manipulation, I got my finger beyond the tumour, and felt, not the shoulder, as Mr. Z. had supposed, but the fold of the groin; and it immediately flashed upon me that it was, in reality, a breech case, that the scrotum had become swollen from pressure, and that Mr. Z. had mistaken it for the bag of waters; with what result, should the child be born living, I scarcely dared to think. I had hardly given him my opinion of the case, when, as if to confirm it, down came a quantity of meconium, which placed the matter beyond doubt. By changing the position of the tumour, and bringing down one of the feet, the delivery was presently accomplished, and I found that the opening on the surface of the growth, which had puzzled me, was the work of the luckless penknife on the child's scrotum. Fortunately, it was born dead, and, as the parents evidently had not the least suspicion of the true state of the case, but attributed the whole matter to disease, I felt the wisest course was not to undeceive them.

From cases I have subsequently seen, I am disposed to think that this swollen scrotum is by no means uncommon in breech cases, and is often a cause of much anxiety and perplexity to the Practitioner. I have also been struck at noticing how rapidly, after delivery, such swellings subside and disappear. I am, &c.

Fitzroy-street, London. EDWARD ELLIS, M.D.

INFANTILE SYPHILIS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your correspondent of last week, Dr. Charles Drysdale, invites communications from other members of the Profession, on the subject of infantile syphilis. I agree with him that it is a subject of grave importance to the Profession, and we ought to adopt every possible means to arrive at a satisfactory treatment of what I cannot but regard as a very numerous class of cases. In Dispensary practice I find these cases very common, and by no means rare in private practice.

I cannot but think that Dr. Druitt overlooks the gravity of these infantile cases, when he states, in his valuable "Vade-Mecum," "the prognosis is always favourable." I have, at any rate, witnessed many cases running on to a fatal issue. This has been due, in some instances, apparently to the syphilitic cachexia gradually wearing out the little patient; in others, a low atonic bronchitis has supervened; and this, I have thought, in most cases, has seemed like an extension of morbid action from the mucous membrane of the nostrils; for, in all such cases, the patient has suffered in a very marked degree from that well-known symptom—"snuffles." In a third class, again, the fatal result has been due to pain and sleeplessness, arising from a diffused erythematous inflammation taking its origin and rapidly spreading from the patches of cutaneous eruption, so constantly occurring in the course of the disease.

I have repeatedly been struck by the absence of any history of primary or secondary symptoms affecting the mother, even in cases in which a numerous progeny has, *seriatim*, shown evidence of the affection. In all these cases where I have had the opportunity of inquiring, the father has owned to suffering from primary disease, in some instances many years before any children were born to him; a convincing proof, if any were needed, of the lurking, persistent nature of the disease. As to the question of treatment mooted by Dr. Drysdale—I have tried many plans, but am inclined, after all, to give the palm of greatest success to a mercurial course, judiciously modified in various cases, and combined with other means. Remembering that in all cases the blood is in a deteriorated condition, I aim at restoring its lost qualities by tonic remedies, whilst I attack the specific disease by mercurial applications. Of the first class of remedies I prefer, as most beneficial, cod-liver oil and steel.

Cod-liver oil acts well in very emaciated, ill-nourished cases, the infants, in some instances, rapidly gaining flesh and strength. Steel is more adapted to pale, anæmic children, and the form most usually adopted is that somewhat old-fashioned, but never surpassed, preparation, "Vinum ferri," diluted with water. Mercury itself is apt to act as an agent deteriorating the quality of the blood; and one of the great uses of steel is, I take it, the tendency to counteract this undesirable action, whilst it in no way diminishes its specific good. I seldom administer mercury internally, but, adopting the suggestion of the author of the mercurial bolt, I direct one round of fine flannel to be stitched upon the little patient, and spread every morning with an ointment, consisting of two ounces of dilute mercurial ointment and ten grains of the red bisulphate of mercury. The latter addition has this valuable property—it masks the familiar appearance of the mercurial ointment; for I find parents and nurses have a great prejudice against using "Hooper's ointment."

I shall adopt an early opportunity for trying Dr. Drysdale's suggestion of chlorate of potash, its value in other cachectic affections being so well established. I am, &c.

Nottingham. SAMUEL D. HINE, M.R.C.S.

THE ALLEGED POISONING CASE IN WILTSHIRE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is a pitiable case of alleged poisoning in Wiltshire going the rounds of the papers, on which the general opinion of the Profession ought to be invited. It is quite the class of case I have been looking out for these months past, where malignant, or other irritant disease of the end of the œsophagus, near the cardia, will cause intense and continuous vomiting. The least irritation of the eighth nerve at this point, as may be seen in the lower animals, produces intense reflex action and vomiting; the same irritation of the stomach will not do so, or irritation of the pylorus. Dr. Roberts and Mr. Herapath seem to be the only men who have gone near the true nature of the case. Four-fifths of a grain of arsenic, as well as I remember, were discovered by the latter one, obviously and admittedly due to large doses of bismuth which had been given as a medicine, yet, in face of all this, the jury bring in a verdict that the "deceased died from the effects of poison; but how or by whom administered there was not any evidence to show." I rather think we are turning over a new, and miserable, and dangerous leaf in Medical evidence if we are to have many verdicts like this one. If it were here of any use, I could refer to some recent experiments in Germany, where the cardia or œsophageal end of the stomach was shown in numerous experiments to be as intensely sensitive or susceptible to vomiting as the eye-ball to winking on the approach of a foreign body. I think it is pitiable to see the Professor of Medical Jurisprudence, in Gower-street, so innocent of this fact, and a jury evidently bringing in a verdict like the above from a few negative or doubtful traces of arsenic or antimony, or smoke by Marsh's test, and because the disease of the end of the œsophagus, though cancerous, was not such as mechanically to stop the transit of food.

I am, &c.

Sackville-street, November 23. CHARLES KIDD, M.D.

P. S.—It is irritation of this point which causes the intense vomiting under chloroform. We may roughly handle the stomach or the intestines in the lower animals, or in an operation for ovariotomy, but there is no vomiting; but once you touch the cardiac end of the stomach, even with a little finger or the handle of a bistoury, instant and violent vomiting is the result: hence, the vomiting in this alleged case of poisoning—continuous vomiting even long before there was any reason to suspect poison! If this is one of the cases where Dr. A. Taylor finds death by poison, though certified death from natural causes, I, for one, totally disbelieve it. We are fast gravitating to a state of things in the Profession unknown in other countries, all due to verdicts of this class—a state of things much to be regretted—that every Medical man is now looked on as a sort of detective officer in families. We have here death from general cancerous disease, and irritation of the disease at the end of the œsophagus, not at all by poison, as recorded in the verdict.

REMARKABLE CASE OF GALL-STONES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I send the following case for insertion in your valuable periodical, if you deem it sufficiently interesting:—

J. C., a married woman, 59 years of age, had been subject to bilious attacks and jaundice occasionally for the last twenty years. For eight weeks before my visit to her she had pain in the right side and vomiting, and, for one week, jaundice; tenderness on pressure in right side since October 24.

I saw her on the 29th. The skin was deeply jaundiced; the conjunctivæ yellow; tongue whitish, furred deeply; knees drawn up. There was a little coarse crepitation and rhonchus at the base of left lung; heart's sounds rapid and weak; breathing quick and short, evidently to prevent, as much as possible, the movement of the diaphragm. There was acute pain in the right hypochondrium; great tenderness there, preventing manipulation; no pain or tenderness elsewhere in the abdomen; urine dark yellow; fæcal evacuations dirty white in colour.

She was much the same when seen last by her husband previously to going to bed; but, on his waking at about 5 a.m. of the 30th, he found her dead and cold.

The death was so sudden that the Coroner decided to hold an inquest, at which I stated it to be my opinion that death had resulted from perforation of the gall-bladder and peritonitis. I subsequently obtained permission to open the body.

Sect. Cadav., October 31, 1862.—Body very fat, there being, in the abdominal parietes, a layer an inch in thickness. Head and chest not examined. All the tissues stained yellow; parietal layer of peritoneum generally dull, covered with soft lymph, adherent to that part of the liver below the

margin of the ribs; the liver was large and pale, with commencing fatty degeneration. On separating the parietal peritoneum, the lower part of front surface of the liver was found covered with a layer of lymph, and the front surface of the enlarged gall-bladder also; the colon was adherent to the gall-bladder below. On gently removing, with the fingers, the lymph covering the gall-bladder, and detaching the colon, a small quantity (an ounce or so) of pus and sanious serum, with bile, escaped; there was then seen an opening on the under surface and left side of the gall-bladder, just where it emerged from underneath the margin of the liver. A large gall-stone protruded slightly from the opening, which was of sufficient diameter to allow of the passage of the little finger. There were two other smaller openings on the under surface. The cystic and common choledochus ducts were much enlarged, and within the ductus communis choledochus was a gall-stone, almost spherical, blocking up the passage. The gall-bladder was completely full of tolerably large gall-stones, most of them of the size of horse-beans. They were ninety-three in number, and weighed together one ounce and seventeen grains troy. The mucous membrane of the gall-bladder was stained of a deep green, and exhibited thickened rugæ, resembling those of the urinary bladder in cases of stricture, thinning off in the vicinity of the perforations to their margins. Externally, the gall-bladder was covered with a layer of fat. There was no peritonitis, save in the above-mentioned situations. The kidneys were small, soft, and flabby, externally yellowish, with considerable red mottling. On section, the cortical part was found lessened in width, and undergoing fatty degeneration. I am, &c. E. B. Truman,

House-Surgeon to the Nottingham General Dispensary.

The Dispensary, Broad-street, Nottingham, November 21.

Evans *v.* Watkins.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—An action for malpraxis was tried last week, in the Queen's Bench, against Mr. Watkins, F.R.C.S., of 2, Falcon-square. The jury considered the case not made out by the plaintiff, but, after consultation, desired to hear part of the defence, and, upon the evidence of Mr. Watkins, their verdict was, very properly, given for the defendant.

Plaintiff had suffered from a pain in the lower part of the abdomen for more than two years, and had been under the care of various gentlemen, including Sir Benjamin Brodie. The pain was ascribed by Mr. Spurgin, of Saffron Walden, and others, to a chronic affection of the peritoneal coat of the bladder; but Sir B. Brodie said, "The best conclusion which he could come to was, that it was a neuralgic affection of the wall of the abdomen." He prescribed carbonate of iron, and said, in common with the other Doctors, that he would get well in time. Mr. Evans, however, lost patience, and consulted Mr. Watkins. This gentleman informed him that he was afflicted with "fixed belly-muscles;" that he was the only man in Europe who understood the case, and promised a perfect cure. He also said that his case had been aggravated by the previous treatment, but that it was not kind to blame the Doctors, as it was the fault of their system, and they knew no better, etc. A series of exercises upon a chair, to stretch the abdominal recti, was performed upon Evans by Mr. Watkins, together with some peculiar treatment with wet sheets, and a "rubefacient," which Mr. Watkins himself had, after years of labour, discovered, and this was continued for about five weeks. Evans spent the intervals in bed; and at the end of this period he took a quarter-mile walk, and on the day after that a walk of two and a-half miles in thirty-three minutes, and various other exercises, and subsequently several times walked up Highgate-hill, down again, and back to the City, "as if he would tear the earth up," and, as he alleged, not only at the direction of Mr. Watkins, but under great pressure from him, and in consequence of his having called him a coward. The rapidity of the walking and the hill work was to alternately stretch the back and belly muscles.

After this, however, the patient's legs became inflamed, tender, and lumpy, particularly in the calves, and he lost all power over his legs, but had no affection of the joints. Mr. Stone, F.R.C.S., of Christ's Hospital, then attended the patient for five weeks, and prescribed warm fomentations to the limbs, simple treatment, and rest. At the end of that time, his wife took him back to the country, and put him again under the care of Mr. Spurgin.

He never recovered the use of his legs; the muscles wasted, and became very tender, and had a bursting feeling when he stood upright. Mr. Stone and Mr. Spurgin both attributed this new complaint in his legs to over exertion in a man of weak frame, debilitated by the previous suffering in the abdomen, and, furthermore, "out of condition" from five weeks' lying in bed, with hydropathic treatment. Eighteen months afterwards, Evans consulted me. The limbs were in the same state, and he was in the habit of binding up his calves to relieve the bursting feeling, and he complained of wearing pains in the glutei and other walking muscles, and that his life was a burden to him.

He still had his abdominal pain, and also had consolidation of the left lung; but there was no evidence of disease of the spine, bladder, or kidneys; no lead-poisoning, or anything which I could find to associate the complaint in the legs with the old pain in the abdomen. This latter I could not explain, except by attributing it to a possible cancerous disease of the lower part of the intestine, as pain above the pubes is often a concomitant of that affection; but this was a mere guess. I prescribed cod-liver oil for the patient, told him that I could not explain the pain in the belly, but thought that the extreme walking exertion, with unconditioned muscles, had produced myalgic damage, inflammation, and subsequent painful atrophy. I afterwards received a subpœna to give evidence at the trial. In addition to Mr. Stone and Mr. Spurgin, I gave this opinion, and said that I thought it unwise to have urged such a man to such exertion while in such a condition of the muscular system. Mr. Stone and Mr. Spurgin coincided with me; and a Veterinary Surgeon said, that exactly similar consequences continually occurred in training horses, if, when unconditioned, they were carelessly galloped. As, however, we all admitted that exercise was good for chronic rheumatism, all this was insufficient to make out a case; but, at the intimation of Chief Justice Crompton, that he thought "there was something to go to the jury," they expressed a wish to hear part of the defence. Upon the evidence of Mr. Watkins, the case entirely broke down, inasmuch as he said that the plaintiff had exceeded his directions on some points and neglected them on others,—and, in fact, his evidence varied importantly from that of the plaintiff, and from the basis on which the Medical men had given their evidence; and Mr. Watkins said that neuralgic rheumatism had struck the legs from the patient taking cold.

Mr. Skey, however, was heard, and that gentleman said, that the treatment was "eminently proper;" and, in fact, not only unreservedly endorsed the hydropathic treatment and the "wonderful rubefacient," but stated that he himself had been under Mr. Watkins' care for a similar affection, and, though he did not get cured, yet got "good service." Furthermore, Mr. Skey went out of his way to say, "that inflammation of the muscles from over exertion, which some of the witnesses had mentioned, was an impossible disease, and that all pathology and all Medical science was against the statement; and that, in fact, there could be no such disease."

Mr. Hume Williams, the junior counsel, cross-examined, and Mr. Skey repeated this statement, and said that, if Dr. Edmunds had mentioned such a disease, he was altogether wrong, and that such a disease had no existence. Copland's Dictionary was then produced, and Mr. Skey, with evident uneasiness, admitted that it was an authority; and, on the article "Myositis" being read, with over-exertion enumerated as one of its causes, Mr. Skey was obliged, amid the astonishment of the court, to recant all he had said. The jury, however, now stopped what had been a long and tedious case, and the Profession were saved the spectacle of seeing one of their representative men "riddled" (as the counsel said), and made supremely ridiculous by recanting statements which he had needlessly gone out of his way to make. I am, &c.

35, Finsbury-circus. James Edmunds.

COMMUNICATIONS have been received from—

Mr. D. W. Parsons; M. D.; Mr. M. A. Robinson; A Young M.D.; Mr. S. A. Harle; Dr. T. McCall Anderson; Dr. Isaac Ashe; Dr. Moore; Dr. Whitehead; Mr. J. B. Curgenven; Mr. J. H. Gervis; Mr. Truman; Dr. A. Mitchell; Dr. Murray Thomson; Mr. E. Goudby; The Secretary of the Epidemiological Society; Dr. E. Ellis; Dr. Whitelaw; Dr. Thorowgood; Mr. Hine; Dr. McOscar; Dr. Wood; Dr. Moriarty; Dr. Lawrence; Dr. Edmunds; Dr. H. Weber; A. B.; Bristol; Salisbury; Hendon; Ludwell; The Secretary of the Western Medical Society of London; Kidneys; Mr. Vidler; Protozoa; Dr. Day.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 22, 1862.

BIRTHS.

Births of Boys, 1000; Girls, 885; Total, 1885.
Average of 10 corresponding weeks, 1852-61, 1671·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	811	748	1559
Average of the ten years 1852-61	647·6	657·9	1305·5
Average corrected to increased popnlation..	..	..	1436
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	9	25	5	8	4	1
North ..	618,210	4	14	18	3	8	14	6
Central ..	378,058	..	6	20	..	7	7	7
East	571,158	8	19	19	1	16	32	5
South ..	773,175	1	35	24	4	12	10	8
Total.. ..	2,803,989	13	83	106	13	50	67	25

APPOINTMENTS FOR THE WEEK.

November 29. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

December 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Epidemiological Society, 8 p.m. Jno. N. Radcliffe, "On the State of Epidemic Disease in Great Britain, 1861-2."

Medical Society of London, 8½ p.m. Lettsomian Lectures—Lecture III. "Public Hygiene (concluded): Means of Ameliorating the Physical and Moral Condition of the Masses." By James Bird, M.A., M.D., F.R.C.P.

Royal Institution, 2 p.m. General Monthly Meeting.

2. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society, 8 p.m. T. Wright, Esq., "On the Human Remains Found in the Excavations at Wroxeter." J. Crawfurd, Esq., "On Languages as a Test of the Races of Man." E. Preiss, Esq., "Some Remarks on the Aborigines in Australia."

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Hunterian Society, 8 p.m. Dr. Peacock, "Remarks on Pellagra, or the Lepra, or Elephantiasis of Lombardy."

Obstetrical Society of London, 8 p.m. Dr. Tilbury Fox, "On the Influence of the Mother's Health in the Production of Rickets."

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

Harveian Society, 8 p.m. Mr. J. R. Lane, "On Stone in the Bladder in the Female."

5. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting of Council.

Western Medical and Surgical Society of London, 8 p.m. Practical Evening, for the Narration of Cases and Exhibition of Specimens.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE EYE.

DELIVERED AT

The Middlesex Hospital,

BY

SOELBERG WELLS, M.R.C.S. Eng., M.D. Edin.

Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital.

STRABISMUS.

LECTURE II.

GENTLEMEN,—Before proceeding to call your attention to the causes which may produce squint, permit me to point out to you the fact, that we occasionally meet with cases of *apparent* strabismus. In such there is an undoubted, well-marked deviation (either convergent or divergent) of the optic axes, and yet both eyes are fixed steadily upon the object, neither moving in the slightest degree when the other is closed. The strabismus, therefore, is not real, but only apparent. Donders has lately called particular attention to this fact, and furnished us with the explanation. Helmholtz has shown that the optic axis and the visual line, or optic line (an imaginary line drawn from the yellow spot to the object-point), do not correspond, but that the latter impinges upon the cornea slightly to the inner side of the optic axis, forming with it an angle of about 5°. You will at once see, therefore, that, if the optic lines are parallel, the optic axes must necessarily be slightly divergent, and such is, indeed, the case in the normal eye, but this divergence is so infinitesimal, and we are so accustomed to it that it escapes our observation. In some cases the visual line may change its position with respect to the optic axis, and, if this deviation be at all considerable, an apparent squint will arise. In myopia, for instance, the visual line, instead of lying to the inner side of the optic axis, may correspond to the latter, or even lie to the outer side of it, and, in the latter case, there will, consequently, be an apparent convergent squint; for whilst the optic lines meet in the object point, the optic axes must necessarily cross on this side of it. In hypermetropic eyes the reverse may obtain; the visual line may lie more than normally to the inner side of the optic axis, forming with it, perhaps, if the hypermetropia be excessive, an angle of 8° or even 9°, instead of one of 5°. If such eyes look at a distant object they will appear to be affected with a divergent squint, for, whilst the optic lines are fixed upon the object, the optic axis will diverge from it. This explanation of Donders is not only exceedingly interesting, but is also of much use to us in practice, for it will guard us against erroneous diagnosis and treatment of such cases(a).

Causes of Squint.—I will now pass on to the various causes which may produce strabismus. In enumerating these, I shall not, however, confine myself solely to the causes of the common concomitant squint, but shall also cursorily glance at other affections which may give rise to a want of harmony in the movements of the optic axes.

The principal causes of squint may be conveniently grouped under the following heads:—

I. *Impaired Vision of One or Both Eyes.* II. *Primary Affections of the Muscles of the Eye.* III. *Shape of the Eyeball.* IV. *State of Refraction of the Eye.* V. *Incongruity of the Retinæ*(b).

1. *Impaired Vision.*—If the sight of one eye has been somewhat weakened by an opacity of the cornea, or of the lens, or by some affection of the deeper structures of the eyeball, the distinctness of the image formed on its retina will be more or less impaired. This difference in the clearness and intensity of the retinal images of the two eyes is often very confusing and annoying to the patient, and in order to escape from this annoyance he involuntarily squints with the affected eye, so that the rays from the object may impinge upon a more peripheral (and, therefore, less sensitive) portion of the retina, and the image of this eye be consequently so much weakened in intensity as not to prove any longer of annoyance. The direction in which this deviation may take place is generally determined by the relative strength of the different muscles. If one proves pre-eminently strong, the eye will squint in the direction of this muscle. The latter will contract more and more, and the squint will soon assume all the characters of concomitant strabismus. The image of the squinting eye will be gradually suppressed, and then amblyopia, from non-use of the eye, will be superadded to the weakness of sight, caused by the original affection (opacities in the refracting media, etc.)

II. *Primary Affections of the Muscles.*

1. *Paralysis.*—There will be a certain loss of mobility in the direction of the paralysed muscle. For instance, in paralysis of the external rectus muscle of the left eye, a convergent squint will arise if the object be carried over to the left side of the patient, increasing in extent the further the object is moved in this direction. Paralysis of one muscle is often followed by a secondary squint in the opposite direction. This may be caused in two ways. *a.* The diplopia may be very annoying to the patient, more particularly if the double images are very close together; and in order to diminish this annoyance the eye will be turned in the opposite direction, so as to increase the distance between the two images. *b.* This secondary squint may, however, also arise in cases in which no diplopia exists, by a simple contraction of the opponent muscle; thus, in paralysis of the abductor, the internal rectus, having but a weakened, or even powerless opponent to counterbalance its action, frequently contracts very much, causing a considerable convergent squint.

2. *Spasmodic affections* of the muscles of the eye may also give rise to strabismus.

3. *Wounds or injuries* to the muscles of the eye may impair the mobility of the eyeball in certain directions. The injured muscle, being more or less weakened, will be unable to counterbalance its opponent, which will soon lead to a contraction of the latter and strabismus. Marked instances of this secondary squint are but too often furnished by *excessive* operations for strabismus, the extent of the operation having been either too great for the requirements of the case, or the muscle itself having been divided instead of the tendon.

4. *Insufficiency of the Internal Recti Muscles.*—At first, this affection only makes itself felt by giving rise to asthenopia. The patient cannot continue to read or work at near objects (sewing, watch-making, engraving, etc.), for any length of time, without experiencing fatigue and discomfort; his eyes become hot and red, the letters get confused and run into each other, the lines of the print appearing to shift, which is due to diplopia caused by the inability to preserve the requisite degree of convergence of the optic axes, on account of the weakness of the internal recti muscles. If we, in such a case, gradually approach an object to the eyes of the patient, we find that, at a certain point (a few inches distant), the one eye becomes a little unsteady and wavering in its fixation, making, perhaps, several abortive, oscillating efforts to re-adjust itself steadily upon the object, and then moving outwards either gradually, or suddenly and spasmodically. If, whilst the patient is looking at an object a foot or two distant, we cover one eye with the palm of our hand, so as to exclude it from participation in the act of vision, the same outward deviation will occur in the covered eye; for there is now no longer any visual impulse to regulate the position of the optic axes, and the covered eye consequently follows the action of the stronger muscle. The same thing occurs if we place a prism with its base upwards or downwards before one eye; for, as soon as diplopia is produced, the visual impulse is abrogated, and the eye gives itself up to the preponderating influence of the strongest muscle. The prism must be placed with its base upwards or downwards, otherwise the eye will endeavour to overcome the diplopia by a voluntary squint. You will find this test with the prism, or that of covering one eye with the hand, of great practical utility in detecting slight anomalies in the actions of the muscles of the eyeball.

If the insufficiency of the internal recti is permitted to continue without being alleviated, or cured by operative interference or otherwise, a divergent squint will generally be the result, particularly if the insufficiency is marked and the myopia considerable. The one eye then gradually yields to the action of the stronger external rectus, the divergence being, perhaps, increased still more, in order that the distance

(a) Although the visual line and the optic axis do not correspond, I shall retain the term "optic axis" in speaking of the deviation of the eyes in squint, so as to prevent the confusion which would arise if different terms were employed.

(b) I purposely pass over causes situated within the orbit, as tumours, abscesses, etc.

between the double images may be rendered very considerable, so that they may prove but slightly annoying to the patient.

III. *Shape of the Eyeball.*—In extremely short-sighted eyes the antero-posterior diameter is often very much increased, and the lateral movements of the eye more or less impeded, sometimes even considerably so. In such cases we may, perhaps, notice a slight convergent squint when the patient looks at distant objects, which will change, however, into a divergent squint when the latter is closely approximated, for the eyes cannot, on account of their shape, be sufficiently converged: I merely refer to this cause of squint in order to guard you against errors in diagnosis.

IV. *State of Refraction.*—(1.) By far the most common cause of squint is to be found in an anomalous condition of the refraction of the eye, and more particularly in that termed hypermetropia. Indeed, convergent squint is, in the vast majority of cases, due to hypermetropia. Attention was first called to this fact by Donders; and I have since that time examined all cases of squint that have come under my notice as to the presence of hypermetropia, and have certainly found it present in most cases of convergent squint.

You are aware that we mean by the term "hypermetropia" that condition of the eye in which its refracting power is too low, or the optic axis (antero-posterior axis) too short, so that rays which impinge parallel upon the eye (emanating from distant objects) are not brought to a focus upon the retina when the eye is in a state of rest, as occurs in the normal eye, but more or less behind it, according to the amount of hypermetropia present. The effect of this low refractive condition is, that, whilst the normal eye unites rays from distant objects upon the retina without any accommodative effort, the hypermetropic eye has already, in order so to do, to exert its power of accommodation more or less considerably. This exertion must increase, of course, in direct ratio with the approximation of the object to the eye; for if the accommodation has already to be brought into play to unite parallel rays upon the retina, how much more must this be the case when the object is closely approximated, and the rays from it impinge in a very divergent direction upon the eye. Now, in order to increase the power of accommodation, one eye often squints inwards, for the following reason—*Together with the increase in the convergence of the optic axis there is also an increase in the power of accommodation.* We can easily prove the truth of this statement by placing a prism (with its base outwards) before a hypermetropic eye; for the latter, in looking at distant objects, will then squint inwards, in order to avoid diplopia, and this convergence of the optic axes will now enable it to unite parallel rays (from distant objects) upon the retina, whereas, when its optic axes were parallel, it could only unite convergent rays (rendered so by a convex lens). Again, on placing a concave lens before a normal eye, we change it into a hypermetropic one, for parallel rays are now united behind the retina, and it will require either a convex glass, or an effort of the accommodation, to bring these rays once more to a focus on the retina. If this concave glass be but weak, an increased effort of the accommodation will neutralize its effect, and overcome this artificial hypermetropia. If, however, the concave lens be too strong for this, the eye often overcomes its effect by squinting inwards, and thus increasing its power of accommodation. You will see, therefore, apart from other consequences, the danger of giving a short-sighted person too strong a glass, for we may thus induce a convergent squint. Now, the same thing often occurs in hypermetropia,—the one eye squints inwards in order to increase the power of accommodation. At first, this squint is but periodic, appearing only when the patient is regarding some object intently. As soon as he looks at any object, near or distant, the one eye moves inwards. Frequently, however, the squint only occurs when he is looking at near objects,—as in reading, writing, etc. This squint has, therefore, been termed periodic squint; and hypermetropia is by far the most frequent cause of it. It is even suprising that squint is not more common amongst the hypermetropic. This form of periodic strabismus is often met with in young children, frequently showing itself first about the fourth or fifth year, when they are learning to spell, etc. In such cases we may fail (on only cursorily glancing at the eyes) to detect the slightest squint; if we, however, direct the patient to look fixedly at something,—as in reading etc.,—one eye squints inwards directly, this deviation, however, disappearing again as soon as the object is removed. Sometimes this periodic squint shows itself whenever the person is looking intently at any object, be it near or distant; in other cases, however, it only occurs when the eye is looking at near objects, the squint disappearing as soon as the eye regards distant objects. The squint may, also, be frequently corrected by placing suitable convex glasses before the eye, so as to neutralize the hypertropia. If the latter is not neutralized by the constant use of convex lenses, the squint will generally soon become permanent, acquiring then all the symptoms of concomitant squint. As hypermetropia is often hereditary, and frequently exists in several members of the same family, and as it also often causes strabismus, the popular idea, that a squint may be produced by imitation, has gained considerable credence, even in the Profession. I have often had occasion to examine such cases of squint occurring in different members of the same family, and have almost invariably found that both patients, the supposed imitator and the imitated, have been hypermetropic: a common cause had produced the same affection.

2. Myopia may also give rise to squint; not only, as was mentioned above, because it is often paired with insufficiency of the internal recti muscles, but also because these muscles, though of normal strength, may not be able, if the myopia be excessive, to maintain continually the necessarily great degree of convergence of the optic axes: they get fatigued and unsteady in the fixation, diplopia is produced, and then one eye flies outwards, in order to separate the double images as much as possible. Again, in some cases of very considerable myopia, the internal recti have become so contracted from maintaining a constant, excessive degree of convergence, that they cannot relax themselves sufficiently to allow of anything like parallelism of the eyes; in such cases (which are, however, of rare occurrence) there will be a convergent squint when the patient looks beyond a certain point; this deviation may, however, be so slight as to be hardly perceptible, the patient's attention being only called to it by the fact, that homonymous diplopia arises when he looks beyond a certain point. Myopia may likewise cause periodic squint. (*a*) If the myopia be confined to one eye, there will be a more or less considerable difference in the refraction of the two eyes, and also in the distinctness of the retinal images, and there will be a tendency, therefore, to lessen the annoyance produced by this difference by increasing the distance between the two images. (*b*) Short-sighted persons, who, within the range of their accommodation, fix the optic axes upon the object, but squint when the latter is carried beyond this range. On placing concave glasses before their eyes, this squint will cease, it being only due to the indistinctness of the retinal images, when the eye could not accommodate properly for the object. As the realisation of well-defined retinal images regulates the position of the optic axes, the eye will yield to the action of the strongest muscle as soon as the object lies beyond the range of accommodation, and the retinal images become somewhat indistinct.

V. *Incongruity of the Retinæ* is occasionally the cause of strabismus. In such cases, corresponding portions of the retinæ of the two eyes are not identical in their action. According to Von Græfe, cases of incongruity of the retinæ may be divided into two groups. 1. Those cases in which the healthy eye fixes its optic axis upon the object: upon closing this eye, the affected one does not adjust its macula lutea upon the object, but a point of the retina lying internal or external to the yellow spot; this point acting, in fact, as a substitute for the centre of the retina, prevailing over it in the energy of perception, but being also identical in action with the macula lutea of the healthy eye. 2. Each eye, when tried separately, fixes its optic axis upon the object; but these two points (maculæ luteæ) are not identical, for when both eyes are opened diplopia arises.

In such cases of incongruity of the retinæ, there is a very peculiar condition of the diplopia. You are aware that in convergent squint (for instance) the diplopia should be homonymous, and that the distance between the double images should correspond to the degree of deviation of the optic axes. In incongruity of the retinæ, however, these conditions may be completely changed, for we may have crossed double images in convergent squint, or homonymous diplopia in divergent strabismus; or even, if the form of diplopia corresponds with the direction of the strabismus, the distance between the double images may be quite out of proportion to the deviation of the optic axes.

My space has only permitted me merely to mention this cause of squint to you, in order to guard you against mistakes;

and I would, therefore, refer you for further information upon this topic, either to Von Græfe's papers upon this subject, *Archiv. für Ophthalmologie*, I., Parts 1 and 2, or to my papers upon "Paralytic Affections of the Muscles of the Eye," *Royal London Ophthalmic Hospital Reports*, No. 11, p. 295.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL MIDWIFERY.

By FRANCIS H. RAMSBOTHAM, M.D.
Physician-Accoucheur to the London Hospital, etc.

(Continued from page 518.)

The following six cases of transverse presentation occurred in my practice during the last five months of 1841, and the year 1842:—

Left Elbow and Shoulder Presentation.

Case 160.—Early in the morning of August 4, 1841, I was sent for by a Professional friend to Mrs. P., Doctors' Commons, in labour of her third child. Her pelvis was distorted, measuring not more than three inches in the conjugate diameter at the brim. The first child, being premature and small, passed without assistance; my friend now in attendance delivered her of her second by craniotomy. The membranes had been broken nearly forty-eight hours; the pains, which were regular and strong before that, ceased almost entirely, until a short time before I saw her. The child lay so high that my friend could not make out the presentation till the morning of the 4th, when he felt an elbow in the pelvis; he then tried to deliver by turning, but, being foiled, requested my aid. I found the left hand external, with the palm directed forwards; consequently, the head lay on the left ilium, and the feet were in the anterior part of the uterine cavity. I passed my left hand (which, as I have before said, I always prefer in all operations within the uterus), got hold of both feet, and turned the child with comparative ease. The breech passed readily, but to bring down the arms and shoulders gave me some trouble, and I had great difficulty with the head. It was fifteen minutes in passing through the brim, and the child was born still. A copious gush of blood took place soon after its birth, which induced me to remove the placenta by the introduction of the hand into the cavity; the uterus, however, contracted firmly after it was withdrawn, and the patient recovered well.

Right Elbow and Shoulder Presentation—Exvisceration—Decapitation.

Case 161.—On November 15, 1841, at 9.30 a.m., I was sent for, by one of the Surgeons, to Mrs. F., Spitalfields, a patient of the Royal Maternity Charity, in labour of her second child. Pains commenced on the night of the 13th, when the midwife was sent for; she found the os uteri quite close. The next day passed without any; but towards evening they were resumed, and the membranes broke at 3 a.m. of the 25th. On the midwife being again summoned, she found an elbow in the vagina, and immediately sent for the District Surgeon, who, being foiled in all the attempts he made to turn, sought my assistance. I discovered the right elbow presenting, and the arm very much swollen. The shoulder was being pressed against and through the os uteri with each pain; and there was a firm, constricted ring in the cervix, of 2½ inches diameter, against which the child's body was forcibly propelled, but through which, with all the exertion I dared to make, I could by no means pass my hand. I, therefore, in the hope of relaxing this rigid band, took 16 ounces of blood, and gave 40 minims of laudanum. At 2 p.m. things were in exactly the same state, and I still could not introduce my hand into the uterine cavity by reason of this impediment. It was evident that the child was dead. I, therefore, perforated the chest by Smellie's scissors; but its body lay so high, that I had great difficulty in removing any of the thoracic viscera. However, I got away both lungs and the thymus gland. I felt the pericardium, but could not detach the heart, nor could I perforate the diaphragm, so as to bring away any of the abdominal contents. I was afraid, indeed, to introduce the perforator high within the child's body, without knowing where the point went to, lest it should pass through the parietes at the other side, and injure the uterus. But the neck came so low, in consequence of the collapse of the chest, as to enable me to carry a blunt hook round it, and, guided by it, my father's decapitating hook. Still, the parts within which I was working were so constricted, that I could not use a sawing movement, and, consequently, my father's hook was almost useless. Bringing down the neck, therefore, by the blunt hook, as low as I could, I made an opening between two of the vertebræ by the point of the perforating scissors, and cautiously cut the ligaments and integuments, sometimes with the outer part of the blade, sometimes with the inner, until I had completely separated the head from the body. By means of the arm which was still external, the trunk was very easily removed, but the head gave me great trouble. I got a blunt hook into the mouth, but I broke the jaw with the exertion that I made. I then, by manipulation, turned the head, with the anterior fontanelle downwards. In doing this the placenta was separated and came external, and yet there was not the least hæmorrhage. I perforated through the anterior fontanelle, and, after evacuating a considerable quantity of brain, extracted the head. The operation occupied an hour and a quarter; and, notwithstanding all she went through, the woman recovered without a bad symptom.

Left Elbow and Shoulder Presentation—Exvisceration.

Case 162.—On March 26, 1842, at 9 a.m., I was sent for by a Professional friend to Mrs. R., Houndsditch, in labour of her third child. The membranes broke on the 23rd; the pains had been active previously, but since that time they had entirely ceased. No part of the child could be felt by an examination as commonly conducted, although the os uteri was tolerably well dilated, and my friend, consequently, did not detect the presentation. The patient remained much in the same state till the morning of the 26th, when the uterus resumed its action. At 8 a.m. the child was propelled sufficiently low for the shoulder to be made out as presenting, and he then sought my assistance. I found the uterus acting very frequently and very forcibly. The left shoulder was wedged in the pelvic brim; the head was lying on the right ilium, with the face directed towards the mother's spine; the elbow was bent in the vagina. Although I felt convinced that, in consequence of the strongly contracted condition of the uterus, it would be impossible to introduce the hand into its cavity, in order to turn the child, still I made the attempt; but I might as well have tried to pass my hand through a deal board; not a single finger could I carry up beyond the presenting part. I, therefore, brought down the arm, which was much swollen and livid, with the cuticle peeling off; and, as the fœtus was evidently dead, I at once perforated the chest just below the axilla, divided two of the ribs with Smellie's perforating scissors, made an aperture large enough to admit two or three fingers, and got away the lungs and heart. I then passed the instrument through the diaphragm, and removed the liver and kidneys; and I drew away the whole of the intestines as though I were unfolding a ball of tape. Yet the body did not collapse sufficiently for the breech to enter the pelvic cavity. Then, cautiously carrying a crotchet up to the brim of the pelvis, I planted it on one of the fœtal nates, and, by the purchase so afforded, caused the body to revolve on the neck as on an axis fixed under the pubes. The breech then came into the pelvis, sweeping the sacrum, and was extracted, distending the perineum to a considerable extent. I brought down the right arm and head without difficulty, and the placenta followed speedily. The operation occupied forty minutes; the uterus was acting powerfully, and the woman was very restless and turbulent the whole time; nevertheless, she recovered perfectly well.

Transverse Presentation at Eight Months—Exviscerated.

Case 163.—On September 22, 1842, at 4 p.m., a Medical friend called me to Mrs. F., Holloway. It was her second child; the first was a breech case, born dead. She was now advanced nearly to the end of her eighth month. The membranes broke on the 18th, since which time there had been a constant dribbling of liquor amnii, but scarcely any pain, until early on the morning of the 22nd. My friend was called at 6 a.m., had remained with her all the morning, and had made several ineffectual efforts to turn the child. I found the right hand and forearm external, the head lying high up on the right ilium, the face being directed towards the abdominal muscles of the mother; the funis was prolapsed,—not pulsating,—cold, and flaccid. The pelvis was entirely filled up by the lower part of the chest and abdomen of the fœtus. The uterus was contracted very strongly round the child's body, and was acting

forcibly. Turning, under such circumstances, was quite out of the question; I, therefore, perforated the abdomen, and removed the liver, intestines, stomach, and one kidney. The body then speedily collapsed, the breech came down into the pelvic cavity, and was soon expelled externally, the child's body turning upon the symphysis pubis as an axis. I easily got down the left arm, and extracted the head. The operation did not occupy more than fifteen minutes. The placenta passed almost immediately, and she recovered satisfactorily.

Transverse Presentation—Decapitation.

Case 164.—On September 25, 1842, at noon, one of the Surgeons to the Royal Maternity Charity called at my house to take me to Mrs. F., Spitalfields, whom I delivered under a transverse presentation, on November 15, 1841, as detailed above. The membranes broke on the 18th, a week before. My friend saw her on the 21st, but did not make any examination, as there had been no pains since. I found the left arm entirely external, livid, and very much swollen; the cuticle was peeling. The head was lying on the right ilium, with the face looking backwards, and the neck presenting over the pelvic brim. The uterus was strongly contracted round the child's body, and was acting vigorously, which had been the case for some hours. My friend had tried to deliver by turning, but had failed. Being satisfied that the uterus would not admit the hand, and the chest and abdomen being too high to allow exvisceration to be performed, I passed my finger round the neck, carried a blunt hook over it by the side of my finger, and then my father's sharp decapitating hook by the side of that. I had thus the means of bringing the neck downwards, as well as the means of severing the head; but having too little room for a sawing motion, I could not succeed in cutting through the integuments. I, therefore, removed the sharp hook, allowed the blunt hook to remain *in situ*, and, as my assistant made traction with it, I directed the point of the perforating scissors against the lowest part of the neck, divided the skin, carefully separated one vertebra from the rest, cut through the cartilaginous transverse processes on each side, and in five minutes had decapitated the fœtus at the root of the neck. The body then came away with little effort, and I extracted the head by passing a blunt hook into the mouth. The placenta followed soon, and she again recovered well.

N.B.—It appears to me better practice, either to exviscerate or decapitate the fœtus, than to endeavour to deliver by turning, in all cases where the uterus is so strongly contracted round the child's body as to cause apprehension of its being lacerated by the introduction of the hand; because, if such a degree of pressure is exerted on it as to render the operation of turning very difficult, the child must have died, either from compression on its own chest, preventing the diastole of the heart, or on the funis umbilicalis, or on the placenta itself, impeding the circulation of the blood through the umbilical vessels. One or other of these operations will always be available, provided turning cannot be performed. If more of the chest and abdomen than of the neck be in the pelvis, exvisceration can be had recourse to, but decapitation would be difficult, owing to the height at which the neck would then lie; and if the neck be over the pelvic brim, the head can easily be severed, although, from the height at which the chest and abdomen lie, exvisceration would be then impossible.

Hand, Foot, and Funis Presenting.

Case 165.—On November 15, 1842, at 4 p.m., a Medical friend sent for me to Mrs. N., Ratcliffe, the mother of a family. The membranes broke at 11 a.m., and the pains, which had been regular until that time, became very trifling, and far apart. I found one foot and a hand in the pelvis, and a fold of the funis, which was flaccid and not pulsating, hanging externally; the other foot was at the brim. I took hold of both feet together, and had not the least difficulty in bringing the breech into the pelvic cavity. The uterus then began to contract more actively, and expelled the child as well as the placenta. She recovered well.

ON THE USE AND DOSE OF BISMUTH.

A FORMULA FOR PULVIS BISMUTHI COMPOSITUS.

By ROBERT DRUITT, M.R.C.P. Lond., etc.

Questions have arisen of late as to the dose of bismuth, and as to the fact that it is usually contaminated with arsenic. It is desirable, therefore, that the experience of such Practitioners as use it largely should be put on record.

The trisnitrate of bismuth should be a powder so fine as not to occasion any grittiness when rubbed between the finger and thumb. It is wonderfully soothing to any excoriated or blistered surface of skin. Mixed with glycerine into a thick paint, it is a capital thing in certain ulcerations of the mouth. It is inestimable in irritable dyspepsia, gastralgia, and suspected ulcer of the stomach. If I am asked,—why is bismuth usually given with soda, and how can it be proved that the good effects do not proceed from the soda only?—I reply, that people like the *taste* of bismuth. Patients can readily distinguish between bismuth, chalk, magnesia, and calomel, when put on the tongue; and it has a distinguishable and agreeable taste, which is *primâ facie* evidence in its favour. Again, patients take it of their own accord in large quantities, and find from it, when combined with a little soda, soothing effects which no dose of any alkali will produce alone.

But, then, the dose? I have heard of Practitioners giving it in doses of two or three grains in pills. I have also read in books that it is a poison. If so, I cannot say at what dose its poisonous effects begin. It is a medicine which may be given with a purpose, and in doses large enough to fulfil that purpose; and I am pretty certain, from the vast quantities of it that I have prescribed in the last fifteen years, for patients in various parts of the world, that, if poisonous symptoms ever followed, I must have heard of them.

In a case, this year, of obscure disorder of the bowels, in which there came on an attack of inflammation of the cœcum, I believed that the end of the small intestine was ulcerated, and determined so to give bismuth, that the diseased part should, if possible, be protected by it. The patient began with thirty grains every four hours; and, after a day or two, forty grains twice daily. I know that she was supplied with 480 grains from the chemists in eight days, and took this quantity in nine or ten days, slackening the doses as she became better. The effect of the remedy was markedly beneficial.

If, then, bismuth contain arsenic, the latter is so sheathed or combined as not to produce any irritation of the stomach. But it is well enough known that arsenic may be given in immense quantities with no such irritation, and with great benefit. And what is the test? The patients take it of their own will and pleasure, without asking a fresh Medical opinion. A patient told me yesterday, that he had been taking fifteen minims twice a-day of that Liq. arsen. chlorodi (for our knowledge of which we are indebted to Mr. T. Hunt) for months and months at a time during the last three years. He takes it because he feels better, and never feels any harm, and this is the only solid evidence of the good effects of any remedy.

It is always convenient to have a formula, and the following one has been liked so much by many of my Professional friends that I enclose it:—

Pulvis Bismuthi Compositus, 24 *Doses*.

℞ Bismuthi trisnitratis;
Pulv. acaciæ, āā gr. 480;
Sodæ bicarb., gr. 240;
Zingiberis, gr. 120 (vel camphoræ pulv., gr. 24);
Sacchari albi, gr. 120, in fiat pulvis.

It should be kept in a well corked bottle, and the patient may use it in twenty-four doses; each to be smoothly stirred in water, with one teaspoonful of brandy.

37, Hertford-street, W.

THE OPHTHALMOSCOPE, AS AN AID TO THE STUDY OF DISEASES OF THE BRAIN.

By J. HUGHLINGS JACKSON, M.D., M.R.C.P. (Lond.)
Assistant-Physician to the Hospital for Epilepsy and Paralysis; Physician to the Metropolitan Free Hospital.

EXAMINATION OF THE EYE BY THE OPHTHALMOSCOPE DURING A PAROXYSM OF EPILEPSY—DURING SLEEP—AFTER PARALYSIS OF THE CERVICAL SYMPATHETIC FROM INJURY TO THE SPINAL CORD.

The special sense most often affected in cerebral disease is the sight; but it, like all the other special senses, nearly always escapes in hemiplegia, chorea, and epilepsy, the commonest forms of cerebral disease. In epilepsy it is involved, but

only, along with the rest of the body, during the convulsion. Sometimes, however, there is blindness for a short time before the actual fit. There are, of course, many cases of epilepsy, and also of hemiplegia, complicated by defect of sight; but in these there is generally some tumour of the brain, or some extensive organic disease. The sight may be affected in a very great variety of ways in cerebral disease, and it is of the greatest importance to analyse the various kinds of defects(a). Suppose a patient with cerebral disease is blind: if it depend, for instance, on detachment of the retina, it has a much more remote bearing on the case than if it be due to apoplexy of the retina, or to wasting of the optic nerve.

To omit obvious superficial changes, as corneitis and iritis —although these are of great value as helps to diagnosis in other diseases subsequent to the acute attack—the various defects may, for the present purpose, be roughly divided into those of affections of the sense of sight itself, and of those parts which minister to it. Of the second I shall now say little. I include under it, double vision from paralysis of the muscles of the eye, mydriasis, and paralysis of the ciliary muscle producing defects of accommodation. The affections of all the nerves about the eye are of great value in diagnosis, as are also the varying conditions of the pupil in disease of the pons, the spinal cord, in thoracic aneurism, tumours in the neck, etc. The chief reason for writing this paper is to speak of the use of the ophthalmoscope, as a help in studying the circulation of the interior of the eye in cerebral disease. I trust that from it we may be able to form a better idea of the varying conditions of the circulation of the brain itself. Having elsewhere, on several occasions, spoken of this, I intend here only, briefly, to bring forward a few observations, viz., an examination of the retina during an epileptic paroxysm, during sleep, and in a case of injury of the spinal cord, in which there were the symptoms, or most of them, found on dividing the sympathetic in the neck in animals.

Ophthalmoscopic Examination during an Attack of Epilepsy.—The following is the report of the case of epilepsy, or, rather, epileptiform convulsions, as supplied to me by Mr. James King, clinical clerk to Dr. Little. I have also to thank Dr. Little for his kindness in allowing me to examine the eye with the ophthalmoscope, and to make use of the observation in this paper:—

William R., aged 42, a dock constable, was admitted May 1, 1862, with tumours in the neck, which first appeared about two years ago, and grew rapidly, so as to cause great deformity. He was pale, weak, and emaciated; but stated that he had enjoyed good health, and had been moderately muscular, before the appearance of the cervical tumours. His mother had died of cancer of the breast. He was constantly spitting mucopurulent and exceedingly fetid fluid, which, on microscopic examination, was found to contain cancer cells. After the tumours in the neck had existed for about nine months, the sense of smell became impaired, and was soon quite lost; taste became lost, except in part of the right edge of the tongue.

On examination, on May 20, the sense of hearing was lost on the left, but perfect on the right side. The right pupil was more dilated than the left, but the sight was not affected, and there was no paralysis of the extremities. There appeared to be no communication between the cervical tumours and the interior of the mouth. Occasional attacks of vomiting occurred. The intellectual powers were feeble, and memory much impaired, and epileptic convulsions were induced if the patient was raised from the horizontal posture. He continued in a semi-comatose condition, supported by wine, milk, and beef-tea, until death occurred, on May 25.

Autopsy Twenty Hours after Death.—Heart small, weighing six ounces; lungs healthy. The tumours in the neck involved only the glands, and were beginning to disintegrate. There was cancerous ulceration of the sphenoid bone, and a small smooth nodule of the malignant growth protruded to the left of the sella turcica, and pressed upon the brain-substance.

The above was supplied to me by Mr. James King. For the following I am indebted to Mr. Hutchinson. Part of the base of the skull on the left side was forwarded to him for examination. The nerves, etc., on the part examined were affected as follows:—Fourth nerve not involved at exit. Sixth, the same. Fifth, surrounded by a thin layer of carcinoma on the dura mater, not adhering to the nerve. It was thickest behind and outwards, and at that part accompanying the nerve forwards towards its ganglion. Upon the eminence just over the anterior condyloid foramen was a thin layer of carcinoma (or of lymph) adhering to the dura mater and to the fibres of the glosso-pharyngeal nerve. The fibres of the pneumo-gastric were also in close apposition to it; those of the spinal accessory were quite free. The internal jugular vein was completely plugged by a dark adherent clot of old standing; this clot ended in the passage of the vein through the bone, and the sinus within the skull was free. The sphenoidal cells and the body of sphenoid were infiltrated with cancerous deposit. The bone was softened. On the dura mater were numerous isolated patches of cancer, some of them very thin and superficial.

I give the following extract from my diary, referring to the ophthalmoscopic examination, as I then wrote it down:—

May 15.—I saw to-day, with Dr. Mackenzie, a case of epilepsy, under the care of Dr. Little. The man had tumours, probably cancerous, at the sides of the neck, and had fits occasionally, in which there were convulsions. These were easily brought on by moving him, or by making him get up in bed, and the pupils then dilated widely. In rest (*i.e.*, no fit present) the pupils were small—so small, that with a good lamp, etc., I could not illuminate the fundus. Still the right pupil was smaller than the left. He had loss of smell and taste, but no paralysis of motion of the body—at least, nothing notable.

On the 16th, I again saw him. He was taken into a dark room; I then examined the eyes. I saw the right optic disc easily. At one time it was, for a time, quite white, and all the vessels disappeared. This was soon after he was raised up. After a while, when the man seemed to be merely faint, the vessels alternated, disappearing altogether in inspiration, and reappearing in expiration.

On the 17th I saw the patient in bed, so that he might not be exhausted; but now the pupil was so small that I could not illuminate the fundus. Having dilated the pupil by atropine, I found the optic discs normal.

It is well known that convulsions follow hæmorrhage, and that anything that stops the supply of blood to the head will bring them on. Raising the patient was enough in this instance. The continued anæmia of the optic disc, therefore, *may* have been due to position only. The pupil, however, was dilated to the utmost extent. This observation shows, at all events, that alterations in the retinal arteries are to be observed in cases in which the circulation in the brain is supposed to be defective. I have, however, in this Journal for August 30, p. 223, written more fully on this part of the subject.

Ophthalmoscopic Examination during Sleep.—A girl, aged 11, was admitted into the Hospital for the Epileptic and Paralysed, under the care of my colleague, Dr. Brown-Séquard, for hemiplegia, which had existed several years. Of this, at the time when the following observations were made, there was little or nothing left, and the child was in fair general health.

I give the following extracts from my diary as the simplest way of recording several observations:—

September 3.—I tried, first, to examine the eyes without using atropine to dilate the pupils, but they were so contracted, as is usual in sleep, that I could not illuminate the fundus. I therefore dilated *one* pupil by atropine, and examined the fundus of both eyes. When the child was awake, I found the optic discs normal. They were well coloured, but not abnormally so. I had examined her sight carefully before dropping in the atropine, and found it perfect. When in deep sleep, one pupil was contracted; the one dilated by atropine remained enlarged. By the aid of a very intelligent nurse, who held up the upper lid, I was enabled to examine the optic entrance, to which, for the present, I confine my observations. I then found that the optic disc itself looked whiter, the arteries a little smaller, and the veins large. The veins were thick, and almost plum-coloured. The neighbourhood of the retina was also more anæmic.

(a) Speaking of paralytic affections of the muscles of the eye, Dr. Jacob says:—"It is not merely with reference to ophthalmic medicines that these affections should be studied—a knowledge of them is essentially necessary to all who undertake the management of cerebral diseases. The pathological illustrations derived from observation of them are of the highest interest, and the facts elicited in the inquiry are of the most conclusive and valuable description." In the same paper, he speaks of the value of similar investigations as to the signs furnished by the retina and optic nerve, and gives an instance of apoplexy of the brain, following what was, no doubt, apoplexy of the retina or optic nerve. It is with the view embodied in the above quotation that I have been led to study diseases of the eye, viz., to seek for more signs of the nature and locality of disease in the brain.

6th.—I saw the optic nerve steadily. The pupil, however, was now rather too small. I saw it, however, and can now confirm my first statement. *The Optic Disc.*—The arteries are certainly smaller, and the veins larger. The other parts of the optic disc are whiter, and the neighbouring part of the fundus is whiter. She had been well tired to-night by a long romp with the nurse.

October 3.—The eyes had recovered by this time, and I again put atropine in the right eye, and examined by the ophthalmoscope. I carefully noted each vessel, especially the smaller ones, and learned by heart the positions of both veins and arteries, and also the degree of coloration of the optic disc. At night I examined the eye during sleep. The pupil was smaller than it was before, but I, luckily, saw well for a long time. The optic disc was not so red, the arteries were certainly smaller, and on this occasion, I think, the veins were no larger, and about the same as in the day. I then awakened her, and examined under similar conditions of light, position, etc. She was awake, but sleepy. I found that the arteries became large, but, on looking again, I found them smaller, as in sleep. They alternated several times. I could not long dwell on the disc; and my opinion is, that the alteration was gradual.

October 16.—A girl, aged 11, a patient under the care of my colleague, Dr. Ramskill. I dilated the right pupil with atropine. In sleep it was dilated; the other was contracted. I saw well in this case. The child kept deeply asleep, and I had the optic disc under view for a long time. All I can say is, that the disc itself was rather paler in sleep. I roused the child well up, so as to be fairly awake, and the only difference then was, that the disc was a little redder.

N.B. The pupil dilated by atropine dilated to the fullest extent when awakened; twice the size it was when the child was asleep. The contraction was not due to the light only. It was the contraction of sleep.

21st.—I put in atropine, and dilated the pupil to the fullest extext. She is a somnambulist, and I found her at 10 p.m. in the ward, in the arms of the nurse. The left pupil (the one without atropine) was not so small as usual in sleep. The other was as large as it was when she was awake. She was asleep, however, and I examined the eye, and then fairly awakened her, by pinching and making her speak, and getting her to look in certain directions. I again examined her eyes when she had gone off to sleep in bed; I feel convinced that the arteries are a little smaller, and the veins larger. I saw well, and for some time.

24th.—Atropine as usual. I saw well; the disc was whiter, and the arteries smaller.

I ought to observe, that in all these examinations the difference in the size of the arteries during sleeping and waking was but slight. I have not lost sight of the possibility, that in sleep the arteries may be more influenced by light than in waking.

In one sense, it is of little importance to know the condition of the arteries in the interior of the eye in sleep; but it has, I suppose, an important bearing on the question, whether the arteries of the brain are contracted or dilated in this physiological condition.

Examination of the Eye by the Ophthalmoscope after Paralysis of the Cervical Sympathetic.—By the kindness of Mr. Maunder, I had the opportunity of examining the fundus of an eye in a case of wound of the spinal cord, under his care in the London Hospital, in which there were symptoms like those following lesion of the trunk of the sympathetic in the neck. The case was one in which there were also all the symptoms found by Dr. Brown-Séquard to follow after section of one lateral half of the cord. The wound was, it was believed, betwixt the last cervical vertebra and the first dorsal; so that there were, as might have been expected, symptoms due to interference with the cervical sympathetic, which, Dr. Brown-Séquard says, come out chiefly from the spinal cord, by the roots of the last cervical and first and second dorsal, viz., increased heat on one side of the face, and contraction of the pupil. The fact, that contraction of the pupil follows on section of the sympathetic, was first noticed by Pourfour du Petit. In 1852, Professor Bernard noticed that there was increase of blood in the parts to which the sympathetic is distributed; and Dr. Brown-Séquard observed that galvanisation of the sympathetic produced exactly opposite effects to its section, contracting the blood-vessels, and hence diminishing the supply of blood. In Dr. Brown-Séquard's work on the "Physiology of the Nervous System," there is a list of the symptoms observed after section of this nerve trunk. Among these it is stated, "The sensibility of the retina *seems* to be increased." In this case there was, however, the patient affirmed, no intolerance. She bore the light of day and the light of a candle, both before and after atropine, without any difficulty whatever. Her sight was good, for near and distant objects. She could not read, but could point out small letters, and could see easily a bell-wire on the wall opposite, and counted some small nails on the panel of the door at a distance of four or five yards. The eye was irritable, and the conjunctiva a little injected. As the sight was good, and as there were no indications of disordered retinal circulation, I did not expect to find any change. There was not, nor had there been, any muscæ of any kind, no "sparks," "flies," and nothing floating before the eyes. In fact, in answer to the most varied questions, she persisted that each eye was the same as it had ever been. As one pupil was only a quarter the size of the other, and as the already contracted pupil became very much smaller than before, under the influence of light, it was impossible to illuminate the fundus. I could, on the healthy side, see the optic disc readily. I was obliged, therefore, to drop in atropine. I dilated both pupils widely. In twenty minutes they were equal.

I compared carefully the optic disc, the veins, and arteries, and found them *quite alike in every respect*. The rest of the fundus was healthy.

I give these details as a contribution to the study of the circulation in the eye. It shows only that, in *this* case (it being carefully remembered that the eyes were under the influence of atropine), the size of the retinal arteries was not appreciably altered. It is possible that, in the wound of the cord, the fibres supplying the retinal arteries may have escaped. Dr. Gardner has drawn attention to cases of contraction of the pupil from pressure on the cervical sympathetic by thoracic aneurisms. In his work on "Clinical Medicine," he gives several cases in which this symptom was thus caused, but in none of them has he noted any defect of sight. In one it is stated that, two or three years before admission, the patient strained himself on one occasion, and was quite blind for a time (p. 530). As there is no further note of any affection of this patient's sight, the man keeping at work until the day before his admission into the Hospital, I supposed the defect was temporary only.

Dr. J. W. Ogle, in a paper in the *Medical and Chirurgical Transactions*, gives twenty-six cases of alteration of diameter of the pupil (sixteen of contraction, and ten of dilatation), from pressure on the sympathetic by aneurisms, and other tumours, and from injuries of the spinal cord. In but one of these is there any note of defect of sight. The following are the details of this case as given by Dr. Ogle:—

"*Case* 9 is that of a man, aged 58, related by Dr. Hope, ('Disease of the Heart and Great Vessels,' 3rd Edition, 1839, p. 608). He was affected by aneurism of the ascending aorta of the size of a cocoa-nut, with general dilatation of the aorta, and who died of pneumonia. He had had headaches for about six weeks, and, in addition to the other symptoms, complete blindness of the right eye, and incomplete blindness of the left one. Both of the pupils were contracted. No special brain symptom existed, and after death the brain was found healthy, but there was thought to be slight dwindling of the left optic nerve."

These cases would seem to prove that injury to the trunk of the sympathetic in the neck does not produce any appreciable effect on the retina. As Dr. Brown-Séquard, however, mentioned to me, in reference to my examination in Mr. Maunder's case, that, as the atropine had reduced both pupils to a like condition, it was possible that it may in the same way have affected the arterial circulation in the retina. The question might be easily settled by galvanising the sympathetic. This would dilate the pupil, and we might then observe the retina.

The question is an important one, as the retinal arteries, being really cerebral, it would appear, that the vessels of part of the brain are not supplied by fibres from the trunk of the cervical sympathetic, if the branches of the arteria centralis retinæ in the eye are normal on section of this nerve trunk.

I may add, that I have examined the fundus of the eye of a rabbit, both during the narcotism of chloroform, and in the sleep-like condition which followed it. I found

no apparent change in it. I subsequently divided the sympathetic in the neck, and, by carelessness, some other nerves in this region. Contraction of the pupil and increased heat of the ear followed. On holding both ears up to the light, the great difference in the size of the vessels was seen. I did not, however, find any change in the condition of the vessels of the optic disc. I do not, however, attach much importance to these negative results, as the fundus of the eye of a rabbit differs very much from that of the human subject, and I have not yet sufficiently learned its peculiarities. I shall try next on a kitten, and galvanise the trunk of the nerve.

I intend also to try to ascertain what, if any, changes can be seen in the calibre of arteries in the retina, by section and galvanisation of the sympathetic in animals, in the narcotism of chloroform, opium, and in poisoning by belladonna; also after death, from various causes, as strangulation, drowning, etc.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

ST. MARY'S HOSPITAL.

CASE OF MALARIOID FEVER AND ENTERALGIA —CLINICAL REMARKS.

(Under the care of Dr. HANDFIELD JONES.)

Eliza B., aged 6, was admitted April 7, 1862. She had been ill one week with a bad cough and spitting up much phlegm. She could not rest at night, and moaned in her sleep. During the first week, a cough mixture, containing chloric ether, was given, and two doses of hydrc. cretâ and rhubarb.

14th.—She complained of very severe abdominal pain, which, however, did not seem like that of peritonitis. She lay in bed constantly whining and crying. She was very weak, and perspired very profusely. She was not thirsty; bowels well open; urine red and thick; coughs much, but there were no râles in the back of the chest. The sounds of the heart were normal. Linseed poultice to the abdomen. The following draught was ordered to be taken three times a-day:—

℞ Ferri et quinæ citratis, gr. v.; acidi hydrocyanici dil., ♏ij.; liq. opii sed., ♏ij.; aquæ, ʒss.

17th.—She did not complain now of pain in the abdomen. She was feverish, thirsty, and perspiring dreadfully. Tongue moist and clean. She complained of pain in her legs. To continue the draught.

21st.—She was a great deal better, but fearfully weak, and seemed to have lost the use of one of her knees.

28th.—Much better, but still very weak. She could move her knees better. She was then to take the following three times a-day:—

℞ Ferri et quinæ citratis, gr. vi.; tinct. nucis vomicæ, ♏v.; aquæ, ʒss.

May 6.—Much better. To continue the mixture, and to take a teaspoonful of cod-liver oil twice a-day.

26th.—She was seen for the last time. Her appetite was good, but she was much emaciated; very slight cough; good breathing all through the chest.

Clinical Remarks by Dr. Handfield Jones.—This case is a well-marked example of Malarioid Fever of children. It presents, besides, the somewhat unusual circumstance of the co-existence of a severe neuralgia. The peculiar prostration and debility, the drenching sweats, the nocturnal restlessness, were characteristic features, and aided materially in forming a right judgment of the nature of the abdominal pain. The importance of a correct diagnosis in this form of disorder is very great, as it does not tend, or but very slowly, to spontaneous recovery, and is really curable by appropriate medication.

WESTMINSTER HOSPITAL.

TREATMENT OF ULCERS OF THE EXTREMITIES BY "SEALING."

(Cases under the care of Mr. BARNARD HOLT.)

In the treatment of ulcers of the legs a novel method has recently been adopted in the Westminster Hospital by Mr. Holt with the best effect. The treatment consists in excluding the air from the wound during the process of granulation, and this plan is found to assist materially in rapid cicatrization, when once a healthy action is set up.

The method of applying the dressing, as practised by Mr. Holt, is as follows:—The margin of the ulcer is covered with adhesive soap-plaister, half an inch wide, and a piece of oil-silk, large enough to cover both the ulcer and the plaister, having been carefully affixed by means of collodion, another edging of plaister is put on the margin. The transparency of the oil-silk allows the progress of the ulcer to be inspected with the greatest ease.

In some clinical remarks upon cases under treatment by this method, Mr. Holt observed, that "To render the treatment effective it was necessary to remove the sealing in accordance with the amount of discharge present. When the discharge is abundant it may be necessary to remove the first sealing on the second day; but experience shows that, as the treatment is proceeded with, so the discharge gradually diminishes in quantity, and that the granulations which, before the sealing, were pale and flabby, become floride and vigorous. Hence, the second application of the sealing may usually be allowed to remain untouched for five or six days, and the third even longer, and so on until cicatrization is complete. No dressing of any kind is required beneath the oil-silk, which should be carefully secured, so as to exclude the air. By this simple method all irritating influences are avoided, the discharge is not too frequently removed, and the growth of healthy granulations is induced, leading to the rapid cicatrization of the ulcer."

We subjoin two cases illustrative of the treatment, for the notes of which we are indebted to Mr. Arthur Beadles, House-Surgeon to the Hospital:—

William J., aged 22, a sailor, admitted, June 24, into Northumberland Ward, under the care of Mr. Holt, with an ulcer of the leg.

History.—About three years since, whilst on board ship, his right leg was crushed by some spars which fell upon it, and, for twelve months after this, pieces of bone came from the wound, which then healed up, and was quite well for six weeks. It then broke out into an ulcer again, and continued to enlarge up to the time of his admission.

On admission there was an inflamed ulcer on the outer side of the right ankle, about two inches long, and once inch wide, but not very deep. There was considerable inflammatory swelling of the surrounding parts, and he complained of burning, pricking pain in the ulcer itself. Ordered a linseed meal-poultice, and, a couple of days afterwards, a nitrate of silver lotion (gr. ij. ad ʒj.)

July 1.—The ulcer was sealed.

4th.—Unsealed, and found to be diminished in circumference half-an-inch; re-sealed.

7th.—Dressings renewed. Discharges a good deal.

10th.—Ulcer much diminished in size.

14th.—Ulcer healing rapidly, and of very small size.

25th.—Discharged cured.

Martha B., aged 22, a servant, admitted, June 24, into Percy Ward, under the care of Mr. Holt, with ulcers of the legs.

History.—On December 28 last, she received a blow on the left leg, which gathered and was poulticed, and a large slough separated, when lotio nigra was applied. The ulcer continued to increase in size, and an ulcer appeared on the right leg without apparent cause, about three weeks before her admission,

On admission there was an ulcer on each of the legs immediately below the patella. The largest, on the left leg, was of the size of the top of a small teacup, whilst that on the right leg was of the size of a two-shilling-piece. They were both very deep, with ragged edges, and discharged freely. Ordered linseed meal poultice.

June 26th.—Ulcers more healthy in appearance, and less painful. ℞ Acidi nitrici dil., ♏xv.; decocti cinchonæ, ʒj., ter. die.

27th.—The depth of the ulcers much decreased, and their

size diminished. The one on the left leg is about the size of a five-shilling-piece, and that on the right about the size of a shilling. Both ulcers were "sealed" according to Mr. Holt's method.

30th.—Left ulcer of the size of half-a-crown, and the right of a sixpence. Ulcers re-sealed.

July 10th.—Ulcers unsealed, and found to be much smaller. The same dressing applied.

14th.—The left ulcer of the size of a shilling, and the right completely healed.

29th.—Discharged.

ACUTE MENINGO-CEREBRITIS—DEATH—CLINICAL REMARKS.

(Under the care of Dr. FINCHAM.)

The following case, for the report of which we are indebted to Mr. Edis, the House-Physician, although unfortunately incomplete, in consequence of a post-mortem examination not having been allowed, is not without interest. It was, Dr. Fincham said, undoubtedly, one of acute inflammation of the brain and its membranes, and there can be little question that it owed its origin to a lengthened exposure to the rays of a July sun. Dr. Abercrombie, in his "Diseases of the Brain," thus speaks of exposure to the sun as one of the causes of inflammatory affections of that organ: "Various other causes might be mentioned, such as the passions of the mind, stimulating liquors, etc.; but I shall not enter upon these, and shall only add one which is of frequent occurrence, and presents some singular phenomena, viz., exposure to the intense heat of the sun. It appears that, in some cases of this kind, the membranes are chiefly affected, and, in others, the substance of the brain. Sometimes an apoplectic state is produced, which is fatal in a few hours; but, more frequently, an affection of an inflammatory nature, occasionally assuming the character of mania; and, in others, paralytic symptoms occur at an early period, followed by coma. The affection, of course, is chiefly a disease of warm climates, but also occurs in this country."—(Part I. sect. 7.)

M. K., aged 23, married, tobacconist. On June 2 he was admitted, under Dr. Fincham, with pneumonia, of several days' duration, complicated with very fetid and profuse expectoration, the cough coming on spasmodically, as in cases of gangrene of the lungs. From these symptoms, however, he rallied rapidly, and on the 19th left for Brighton, the chest then being resonant, the air entering freely. There was little or no cough, and scarcely any expectoration. He remained at Brighton for a fortnight, the cough gradually subsiding, and his general health continued to improve.

On July 5, a bright and scorching day, he lay on the beach for some hours. At 6 p.m. he returned home, complaining of headache, and partook of a crab for supper. During the night he was very restless and feverish, and the cough was very troublesome. He returned to town, however, early the next morning, before breakfast, and, feeling very hungry after his journey, partook somewhat largely of sausages, liver and bacon, etc. He felt very sick and queer during the day, but went for some five or six miles' walk in the evening, the sun then being very hot and glaring. He slept from 8 p.m. until 3 a.m. (7th), when he awoke with a severe pain in his head, and brought up a large quantity of yellowish fluid. The sickness continued unabated during the whole day of the 7th, until 11 a.m. on the 8th; the matters ejected being of a yellowish green, bilious character.

12 noon.—Re-admitted under the care of Dr. Fincham. Countenance anxious. Pulse slow and regular. Bowels open twice previous to admission. Headache, of great intensity, still persists. Ordered four gains of calomel immediately, and a common enema. An effervescing draught, with five drops of hydrocyanic acid, every four hours. Beef tea, arrowroot and milk.

3 p.m.—He lies on his right side, doubled up. Headache intense. Pulse 78, full and regular. Coughs occasionally. Sputa viscid. No sickness since admission.

9th.—He has slept very little. Headache severe. Bowels not acted. Ordered an enema of turpentine. The top of the head was shaved, and a large blister applied. A pill of two grains of calomel to be taken every six hours. In the afternoon he coughed up some bright blood, but further hæmorrhage was prevented by ice, etc.

10th.—Bowels not open. Headache somewhat less. Pulse 74. Passed a restless night, wandered a good deal. Another turpentine enema. To take the pill night and morning.

11th.—Headache severe, wanders very much. A blister to the back of the neck. To take the pill every four hours.

12th.—Headache better. Pulse 92. Cough troublesome. Sputa viscid and very fetid. Beef tea, Oiij.; milk, Oj. Repeat enema terebinth. Experiences difficulty in taking the pill, so powders were ordered instead, every four hours.

13th.—Bowels acted. Passed a somewhat better night. Headache disappearing. Manner more cheerful, decidedly improved. Answers rationally. Pulse 96. 10 a.m.—Summoned hastily to his bedside, he having been seized with a violent convulsive fit. Right pupil very much dilated. Left natural; answers to light. Pulse 90. Respiration 34. Breathing stertorous. 10.40 a.m.—Both pupils dilated. No distortion of features. Breathing laboured. 12 noon.—He died in a violent convulsion. No post-mortem allowed.

THE LONDON HOSPITAL.

CYSTIC TUMOUR OF THE VAGINA.

(Case under the care of Dr. BARNES.)

L., aged 31, has had four children. She became aware of a swelling in the vagina four years ago; it was attended with profuse leucorrhœa. About a year ago, the tumour, becoming troublesome from its bulk, was punctured; some fluid escaped. It quickly filled again, and became larger than before. She was seen by Dr. Barnes in September. She was then four months pregnant. There was then a tumour seated in the anterior wall of the vagina, a little below the os uteri; it was of the size and form of a hen's egg, smooth, tense, elastic, giving the sensation of a hernia of intestine. By speculum, the tumour was seen to be covered by mucous membrane in a state of inflammation. The cervix uteri and the vagina, generally, were inflamed, secreting muco-pus, and in spots abraded, from the irritation caused by the friction of the tumour, which filled the vagina as a foreign body. It was concluded that the tumour was a cyst containing fluid, seated behind the mucous coat, and between the muscular and fibrous coats of the vagina. Its position was considered to exclude the conjecture, that it might be a cyst formed in the broad ligament. Regarding the proximity of the tumour to the bladder, Dr. Barnes did not think it advisable to attempt to enucleate it entire. He, therefore, adopted a practice which he has found effective in all the varieties of vaginal cystic tumours. The patient being placed on her back, and the vagina opened by the duck-bill speculum on either side, the cyst was seized by the vulsellum, and punctured, when more than an ounce of clear, glairy fluid escaped, and an elliptical piece of cyst-wall cut out with the scissors. The remains of the cavity were then plugged with lint, soaked in tincture of iodine. Successive examinations showed the gradual shrivelling of the remains of the cyst-wall. For about three weeks there remained a small cup-shaped cavity, with an indurated base, the surface granulating. When discharged, at the end of a month, there was only a trace of the cyst left, the inflammation was entirely removed, and the patient was free from inconvenience. Independently of the distress caused by such a tumour in the non-pregnant state, it might, if existing during labour, give rise to a pelvic inflammation through the contusion caused by the passage of the head. There was, therefore, a double inducement to remove it.

CYSTIC TUMOUR FROM OBSTRUCTION OF THE DUCT OF BARTHOLINI'S GLAND.

(Case under the care of Dr. BARNES.)

This case, Dr. Barnes explained, was an example of a cystic tumour, arising from an obstruction of the vulvo-vaginal, or Bartholini's, gland. The patient was a single woman, aged 26. She presented a tumour, in the left external labium, the size of a pigeon's egg; it had been growing four or five years; she had suffered no pain from it, but it caused annoyance from friction against the opposite side of the vulva. She was admitted into the Hospital in March last, when Dr. Barnes incised the cyst lengthwise, cut out a strip with the scissors, and plugged the cavity with lint, soaked in tincture of iodine. The cyst was full of a viscid, straw-yellow fluid. The inside of the cyst was cauterised with lunar caustic daily. At the end of three weeks, very little remained; granulations had filled up the cavity. Some months later, there was no return of the disease.

Dr. Barnes remarked, that nothing less than excision of a portion of the walls of these cysts, and free cauterisation of the lining membrane, could be relied upon to cure them. Bartholini's gland was especially liable to inflammation from blennorrhagia; but the duct might become occluded from other causes.

MIDDLESEX HOSPITAL.

CASE OF ARTERIAL BLEEDING FROM A WOUND IN THE PALM—FAILURE OF COMPRESSION—THE RADIAL AND ULNAR ARTERIES TIED.

(Under the care of Mr. HULKE.)

In many cases of bleeding from injuries of the palmar arteries, a compress applied to the wound and acute flexion of the elbow are all that is required; and in recent cases, where the open vessel is not easily accessible for tying in the fresh wound, these measures always deserve a fair trial. When the tissues are infiltrated and swollen, pressure is not merely often inefficient, but it enhances the tendency to sloughing, and, under these circumstances, the common practice is to tie the radial and ulnar arteries just above the wrist, one or both of them, as the case requires. This seems, also, to be the current practice in France; whilst in Germany ligature of the brachial artery is adopted by many Surgeons as the preferable course. Its recommendations are the greater ease with which this artery may be tied where it lies amongst healthy tissues, and its alleged greater certainty. The first has some weight, because it must be admitted that it is easier to tie the brachial, than the radial and ulnar arteries when the tissues are infiltrated and swollen; but we do not think this a sufficient reason for departing from the principle of tying a bleeding artery at the nearest accessible part of its course, when the bleeding-point itself cannot be got at. The second requires further proof, because although cases have been known where bleeding has been kept up through an enlarged interosseous after the radial and ulnar arteries were tied, evidence is wanting to show that these cases are more numerous than those where the wound has bled in spite of deligation of the brachial artery.

A pipe-case maker, aged 21, accidentally stuck a gouge, half an inch broad, into his left palm. The wound bled profusely; a chemist strapped it up tightly, but, in a short time, the blood burst forth again. Direct compression was now tried, and other compresses were placed over the radial and ulnar arteries. In spite of these measures, there were repeated hæmorrhages, so that, on the eighth day, he was quite blanched from loss of blood. At this time he came under Mr. Hulke's care. The whole hand and forearm were much swollen, and dusky red; and there were several large bullæ on the back of the hand. Severe pain had prevented sleep for several nights, and he was worn, restless, and feverish. On removing the compress from the wound, florid blood flowed in a slow, continuous stream. The edges of the wound were sloughy, the tissues around infiltrated with extravasated blood, and the palmar fascia upheaved by a large coagulum. The wound was extended, and the clots turned out, but the bleeding vessel could not be found. A graduated compress was applied to the bottom of the wound; the hand and forearm were supported by a bandage from the fingers upwards, and fixed in a raised and flexed posture. This restrained the bleeding for a few hours, but, next morning, its return, and the threatening state of the limb, made it necessary to tie the radial and ulnar arteries. This was quite successful. The hand was afterwards placed on a raised pillow, and irrigated constantly during the next fortnight. The ligatures fell off on the fifth day, and on June 17 he left the Hospital. The suppleness of the hand returned slowly, and in September he was again at work.

DIVISION OF THE SUPERIOR PROFUNDA ARTERY AND MUSCULO-SPIRAL NERVE.

(Under the care of Mr. HULKE.)

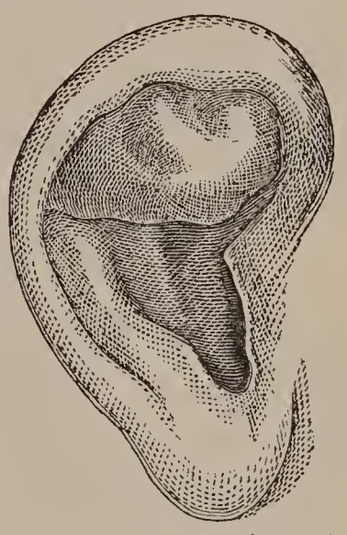
Mr. Hulke has attending, at his out-patients' room, a harness-maker, aged 27, who, on May 16, in a brawl, was wounded with a thin, much-worn, pointed table-knife in the outer side of the right arm, at the junction of the middle with the lower third, just at the outer border of the biceps muscle. He fainted from loss of blood whilst being brought to the Hospital, and the extensors of the hand were paralysed. Mr. Shaw, on extending the wound, found that the knife had glanced off the outer side of the humerus, and had passed deeply behind this bone, dividing a portion of the trieeps extensor, the arteria profunda sup., which was the source of the bleeding, and the musculo-spiral nerve, the cut ends of which were plainly visible. A ligature was placed on the distal and proximal end of the divided vessel, and the bleeding ceased. The wound suppurated, and closed by June 26, when the patient was discharged. On November 1, when he was last seen, the muscles at the back of the forearm were wasted. The hand was maintained in a state of pronation and semiflexion; it could not be extended by museular effort, but this movement was imperfectly imitated by allowing the hand to fall over by its own weight, when the forearm was semiflexed and supinated by the biceps.

METROPOLITAN FREE HOSPITAL.

CASE OF HÆMATOMA AURIS.

(Under the care of Mr. HUTCHINSON.)

The following case is of especial interest in reference to the important lectures recently published by Professor Laycock in this Journal. For long it has been matter of observation in asylums that the insane are prone to suffer from swellings and indurations of the ear. By some these swellings have been attributed to mechanical injuries, whilst others have urged that this explanation is, in many cases, not applicable, whilst the frequent symmetry of the diseased condition makes it improbable in most. Dr. Laycock, from a wider investigation of the symptomatology of the ear, arrives at the following (amongst others) conclusion:—"That the states of the circulation, nutrition, and development of the tissues which make up the ear-lobule, and cover the helix, very commonly coincide with similar conditions of the encephalic tissues"(a). If this be substantiated—if there be indeed a correlation between the nutrition of the brain and that of the ear, we have an explanation of the occurrence of hæmatoma in insanity. Be this as it may, however, the following example of the symmetrical formation of hæmatoma in a person who had certainly received no injury, is of much interest in reference to her history. The woodcut which we append represents one of the ears after the swelling had much shrunk, and when it was in process of cure.



Hæmatoma of Both Ears—History of Insanity in the Family—Physiognomy indicative of Proneness to Cerebral Disturbance—Arrested Menstruation and Sleeplessness.

Mrs. G., aged 26, the wife of a sailor, married four years but never had any family. She came to me on March 7, with a large swelling in the upper part of the right ear. The swelling was at least the size of a walnut, tense, and fluctuating. It had been opened several times during the three or four months which it had been forming, and nothing but blood had ever been obtained. The Surgeon on one occasion had put a seton through it. There had been great soreness in it, and the skin and cellular tissue near to the ear were considerably swollen from extension of the irritation. I opened the swelling freely, fully expecting to obtain pus, but none came, only a thin bloody fluid. I kept the opening free from day to day, and the inflammation slowly subsided.

On March 25 she mentioned that she feared her other ear was about to be affected in a similar way. I found a thickening of the cartilage, with decided fluctuation. There was no redness, but it was very tender on pressure. The fluctuating part was ill defined. The skin appeared thinner on the inner side of the cartilage. Exactly the same part was affected as in the other ear.

I had suspected from the first that the case was similar to the hæmatomata of the ear met with in mania, and this sym-

(a) *Medical Times and Gazette*, March, 1862, p. 289.

metrical occurrence tended to support the idea. On inquiry, I learnt that a paternal uncle had been insane. Mrs. G. herself was of heavy aspect, with a small forehead, and large face. Her ears were large in the upper part, and wanting as to the normal development of curves. Her husband was at sea. She told me that she had of late been very sleepless at nights, and somewhat depressed in spirits, with a sense as if something were hanging over her; feet often cold. She had lately lost flesh and got paler, but was still in good general health. Catamenia irregular during last three months. Appetite rather poor.

She admitted having drunk freely, both beer and spirits, and had possibly led an irregular life in other respects, but of this there was no positive proof. My colleagues, Dr. Jones and Dr. Hughlings Jackson, both agreed with me in considering that the woman's physiognomy was decidedly peculiar, and that of a person likely to suffer from cerebral disturbance. Her cranial development was bad, and there was conjoined with that a certain restlessness of eye.

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Medical Times and Gazette.

SATURDAY, DECEMBER 6.

PUNISHMENT.

The outrages committed by "ticket-of-leave" men in the London streets, at the present time, naturally draw the attention of most men to the subject of punishment. It is generally felt, that we are not sufficiently protected from the criminals who always will be found in such a population as ours; and the opinions uttered as to the remedies required, vary between the opposite extreme of a false tenderness that verges on imbecility, to a panic that is both cowardly and cruel.

We are not Utopians; and, whilst men are born with the infirmities and with the passions which constitute alike the strength and weakness of their nature, we must expect that there always will be some whose industry has failed of its reward, and who have the excusable temptation of want; and of others who have allowed themselves to be so much the slaves of idleness, gluttony, and sensuality, that they have neither inclination nor ability to live, save by preying on the industry of other men. But there are others, even in this Christian and civilised country—and we could find such persons even in the most refined parishes of this city—who have been allowed to grow up, without the slightest moral or mental training whatever. We could point out the families of idle and dissolute persons, whose children are never sent to any other school than that of the streets, into which they are turned to get their living as they best may. Before a civilised society sets about devising cruel punishments, it were well to see that no child could be turned loose on the world without some knowledge of right and wrong. It is strange that people who think with complacency of hanging, or of penal servitude for life, should be offended at the notion of penalties for allowing children to run the streets untaught, and should begrudge the million or so requisite for good popular, elementary schools.

But since there must be criminals, from infirmity, sensuality and ignorance, and since criminals must be punished, let us see what are the principles on which punishment is based. In the first place there is the selfish principle. Society must be protected, it is said; thieves and garotters ought to be locked up; it is cheaper (it is said) to keep a man twenty years in prison, than to pay for the depredations which he might commit in one week if at large. Punishment, to be protective, must be exemplary; it must be a means of striking a wholesome terror into the minds of a whole population, so that they who are still innocent shall be afraid to offend, and they who have once been punished shall be afraid to offend again. In the next place, there is the philanthropic view, according to which punishment is intended mainly for the benefit of the criminal, who ought to be looked upon as a diseased or unfortunate person, suffering from propensities beyond his control, and to be treated in a prison as in a moral Hospital for the good of his soul's health.

Lastly, there is the principle which is studiously kept out of sight by the ultra-humanitarians, but which is based upon the inmost instincts of human nature; it is this—that pain is the just penalty of transgression. He who does wrong ought to suffer, and, in suffering, he is felt to satisfy the claims of justice. This view of punishment is often named the vindictive, and with perfect truth; but there is such a thing as righteous vengeance just as there is a reasonable selfishness, and the true instincts of our hearts tell us so. "It serves him right" is the true verdict when an offender is made to feel pain. It does not in the least follow, that the man who exacts punishment shall be cruel, or shall hate the object of that punishment. Punishment may be inflicted in mercy, and not in wrath. Moreover, punishment has in it this virtue, that he who being guilty acknowledges its justice, and submits to it with resignation, must, humanly speaking, be considered to have, in some degree, expiated his offence, and is prepared for the operation of higher and better influences for the future.

The common outcry at present is, that the punishment of criminals is insufficient, and that they do not care for it. On the other hand, we are told by humanitarians that punishment ought not to affect health or life. But here is a difficulty. On the one side we are told of criminals who are better fed, clothed, and tended, than the non-criminal labouring population—who are supplied with medicines when ill, and agreeable labours for their diversion when well, and who, with their animal and mental wants supplied, are really better off in gaol than in their homes, or in the Union House. It is quite clear that this is a mistaken policy, for no punishment deserves the name that is not felt to be such. But, then, the moment you really begin to make a man suffer you touch his life. The cat-o'-nine-tails, the bread-and-water, the dark cell, the cold shower-bath, the treadmill, nay, even the disgrace, all have the power to kill. The gaol Surgeon has his anxious moments—but they are not about fever or accidents, but about men under punishment—he fears what may be found when the dark cell is opened in the morning.

We have heard a philanthropist, who argued against the punishment of death, say that he would create a far more terrible punishment, by inflicting a life-long system of hard work, silence, bad diet, even whippings, and seclusion from human voice and countenance. But it is forgotten that all such means are killing. The *penitent* may, by bowing his head, bear such punishment; but physical torture and disgrace, aggravated by the struggles of resolute malevolence, would soon extinguish life.

In considering the whole subject of punishment, we ought to consider how far we ourselves are guilty of our brother's crime through imperfect legislation, which may have crippled his industry; or want of teaching, which may have left his conscience unenlightened. To deter offenders, punishment should be certain, yet should be capable of being shortened to a

certain definite degree by good conduct. It should be accompanied by moral teaching, and by practice in industry. After it is completed, the prisoner ought to be looked upon as absolved, and should have every chance of beginning life again in a place where his industry will not be hampered by the remembrance of his crime. Corporal punishment, it is found by the experience of the whole world, does deter men whose feelings are callous to considerations of disgrace or inhumanity. The evils of the *bagne* system, both upon the convicts and upon those who have charge of them, are so great, that an occasional execution of a hardened offender is, in our eyes, a less one. After all, it is to a revival of transportation that we must look for the most merciful and effective protection against hardened criminals.

THE MIDDLESEX HOSPITAL.

(*From a Correspondent.*)

The Middlesex Hospital was founded in 1745, about the period when there seemed to be a sudden awakening to the necessity for Hospital accommodation in the then rapidly growing metropolis. Guy's, the Westminster, the London, St. George's, the Small-pox, and the Middlesex, all were founded within a period of about twenty years. It was only a few years later that Johnson talked about the "wonderful immensity of London;" and yet, until Guy's was founded in 1725, St. Bartholomew's and St. Thomas's were the only Hospitals in it. The Middlesex was located first in a building in Windmill-street, Tottenham-court-road, and was instituted for the reception of sick and lame persons, and two years after its foundation a ward was opened for lying-in patients. The premises were found too small and incommodious, and a subscription was raised to enable the Governors to build a new Hospital. A piece of ground in the Marylebone *fields* was obtained, and the nucleus of the present Hospital was built and opened in 1755. There is an engraving, from a drawing made by Rowlandson in the early part of this century, of a ward in Middlesex Hospital, which represents what the ward and the doctors were like in those days. Two of the doctors, in buz-wigs and shovel-hats, are disputing over a prescription paper, to the edification of the apothecary and a marvellous specimen of a nurse, whose general appearance is suggestive of the Billingsgate fishwife of a few years since. Only one bed has curtains, a state of things which showed their wisdom in those days, and to which the authorities of the present day have reverted.

The lying-in wards were soon found to be inconvenient; and in their place, in the early part of the present century, an out-patient midwifery department was established, which has ever since given abundant work to the Physician-Accoucheur, the pupils, and the midwives. More than 800 women are now attended annually at their own houses.

In 1792, the cancer establishment, which has ever since formed so peculiar a feature in the Middlesex, was founded, a donation for that purpose being anonymously given by Samuel Whitbread. This endowment has been increased by bequests from Mrs. Stafford, and Sir J. De Courcy Laffan, and these names are respectively given to three wards for the reception and maintenance of 26 women afflicted with cancer. Seven beds are also set apart for male cancer patients. By a recent regulation, the cancer department is rendered free to all patients, no letter of recommendation being required; and a free out-patient cancer department has also been instituted.

In 1793, it appears that the funds of the Hospital were at so low an ebb, that many wards were empty. An application was made, in consequence, to the Governors to allow some of the vacant wards to be used for the reception of sick clerical and lay French emigrants, which was granted on certain conditions, and part of the Hospital continued to be so appropriated till the return of the emigrants to their own country in 1814. It seems, however, from the minutes, that not only the sick, but others, who required board and maintenance only, were received into the Hospital.

At the termination of the war in 1815 the funds seem to have revived, and we find that the whole Hospital was occupied, and that investments, to some extent, were, year by year, made in public securities. Much was due to the personal exertions of a few of the influential Governors, especially Lord Robert Seymour, to whose memory a tablet is placed in the board-room.

Several additions and improvements were, from time to time, made in the Hospital; but in 1848 it was found that the building was too limited in size, and that it was, in many respects, ill-calculated for its objects. Any one who remembers the dark passages, the close approaches to the wards, into which drifted the foul air from the sinks and water-closets which characterised the old Hospital, will quite understand why it was that pyæmia and erysipelas, and all the evils which a badly-constructed Hospital can foster and generate, were abundantly rife.

A question was raised, whether the Hospital could be improved and enlarged, or whether it would not be better to pull it down and rebuild it entirely. Mr. Wyatt, the architect to the Hospital, produced a plan, which was so entirely satisfactory, that it was resolved to improve, or rather to reconstruct the old building; and, perhaps, there never has been an instance of the conversion of an old building into a new which has so thoroughly succeeded. It may now be fairly considered one of the healthiest Hospitals in London; and this is shown by the fact, that erysipelas is very rare in its wards, and that, although fever cases, which are excluded from many Hospitals, are freely taken into all the Medical wards, there is scarcely an instance of either patient, nurse, or student being taken with infectious disease. The per-centage of mortality is high in the Hospital, generally; but this is owing to the large number of cancer patients who die in it, and to the numbers of severe fever cases which are admitted. The Hospital is in the form of an H, which is, no doubt, the best form for ventilation, and the most convenient for working. Fronting Berners-street, and having a good-sized garden at the back, there is a large body of free air about it, which contributes to its general healthiness, but more is due, perhaps, to the absence of all internal passages. Every passage and lobby has a direct communication with the external air, so that there is no stagnant and impure air to drift into the wards and contaminate them. The ventilation is almost exclusively by windows and fire-places, and, from the construction of the windows, is so good, that even in the cancer wards there is not, either by day or night, any unpleasant atmosphere.

As now constructed, the Hospital contains 310 beds, of which 120 are for Medical and 190 for Surgical cases. Besides the cancer ward there is a special ward, under the Physician-Accoucheur, for cases of uterine disease not cancerous; wards for venereal cases; and beds are set apart for ophthalmic cases.

The out-patient department is very efficiently worked. The ordinary Medical and Surgical out-patients are frequently seen by the Assistant Physicians and Assistant Surgeons, and, on all emergencies, by the House-Surgeons, the Apothecary, and the Clinical Assistants. There are special times at which cancer patients, those with uterine and special female diseases, ophthalmic cases, and patients with affections of the teeth, are attended.

The staff consists of three Physicians, four Surgeons, a Physician-Accoucheur, three Assistant-Physicians, two Assistant-Surgeons, an Ophthalmic Surgeon, and a Dental Surgeon. Residing in the Hospital are—an Apothecary, two House-Surgeons, who are selected from amongst the students annually on competition, three Clinical Assistants, and one Obstetric Assistant, similarly selected. The four latter appointments have been recently instituted by the Governors, to give facilities for the practical clinical working of the

Hospital, the Obstetric Assistant acting as an instructor to the students in their early attendances on women in their confinement. They, with the House-Surgeoncies, are also the most valuable and important prizes which it is possible for a student to obtain. As the House-Surgeons and Clinical Assistants board and reside in the Hospital free of expense, the money value alone of each appointment may be considered as equivalent to £70 or £80.

The management of the Hospital is entrusted to a Board of lay Governors, which meets weekly: none but members of the Board are allowed to attend its meetings. At one period there was an open Board, but questions arose which gave rise to strong party feelings, and, with the entire concurrence of the Medical officers, the present system was established. A large and responsible share in the government of the Hospital devolves on the Medical Committee, which is composed of the Staff of the Hospital and other Medical Governors, and which has the regulation of all Medical affairs in the Hospital, subject, in the case of new enactments, to the approval of the Weekly Board. So harmoniously has this system worked, that, since its constitution in 1848, there has been no instance of collision or unpleasant feeling between the Weekly Board and the Medical Committee.

The number of patients annually received into the Hospital is, on an average, about 2100; of out-patients about 18,000. The total annual expenditure for all purposes is less than £11,000, which, as the wants of the patients are supplied on a most liberal scale, indicates a very careful management on the part of the government of the Hospital. To meet this expenditure, the Hospital has now, from funded and landed property, a yearly income of between £5000 and £6000, and receives from annual subscriptions something over £2000; the rest is made up usually by donations, life subscriptions, etc.

(To be continued.)

THE WEEK.

PROFESSOR OWEN'S LECTURES ON REPTILES.

PROFESSOR OWEN'S third lecture, on Monday night, was devoted to the consideration of those evidences of fossil *Reptilia*, the orders of which have entirely disappeared, and which have not left any direct representatives. The order *Ganocephala* was characterised by the head being defended by sculptured and polished ganoid plates, including "post-orbital" and "supra-temporal" bones; no occipital condyles; teeth with converging inflected folds of cement at their lower half; notochord persistent; vertebral arches and peripheral elements ossified; pleurapophyses short and straight; pectoral and pelvic limbs natatory and very small; large median and lateral throat-plates; scales small, narrow, and subganoid; traces of branchial arches. The first evidences of this order of extinct reptiles was obtained by certain fossils which were discovered in the "sphœro-sideritic" clay-slate forming the upper layers of the coal measures of Bavaria, and in spheroidal concretions from the coal-field of Saarsbruck, near Treves. Agassiz referred these evidences to the class of fishes, naming them *Pygopterus*. Hermann von Meyer, having doubts as to the inference of Dr. Gergens, that it was a salamandroid reptile, termed it *Apateon*, or "a cheat." Goldfuss named it *Archegosaurus*. But it was neither at the beginning (*αρχηγος*) of the reptilian series; nor was it a lizard (*σαυρος*). Professor Owen compared its structure with that of the *Labyrinthodontia*, with the *Crocodilia*, and especially with the vertebrates of the Devonian and carboniferous periods. In the imperfectly ossified or notochordal state of the vertebral column, the state of the exoskeleton, with the trunk covered with rhomboganoid scales, and the head armed with broad, suturally-united, grooved, and polished plates, the *Archegosaurus* offered many points of analogy with fishes. Other forms of *Ganocephala*—*e.g.*, *Raniceps*, *Dendrerpeton*, *Hylonomus*, *Hylerpeton*, *Loxomma*, and *Pholidogaster*, were also referred to. In the order *Ichthyopterygia* there are supplementary post-orbitals and supra-temporal bone still present, leaving a "foramen parietale," small temporal and other vacuities between the cranial bones, one occipital condyle, one edentulous vomer. Vertebral centra ossified, biconcave; trunk pleurapophyses, short and bent, anterior ones with bifurcate heads; teeth with converging folds of cement at their base, implanted in a common alveolar groove, and confined to the maxillary, pre-maxillary, and pre-mandibular bones; pre-maxillaries much exceeding maxillaries in size; limbs natatory, with more than five multi-articulate digits. Of the *Ichthyosaurus*, more than thirty species are known, which first occur in the lower lias, and, more or less abundantly, through all the superincumbent secondary strata, the Wealden excepted, up to, and inclusive of, the chalk formations. They are more numerous in the lias and oolite, the largest and most characteristic species having been found in those formations. Of no extinct species are the materials for a complete and exact restoration more abundant and satisfactory than of the *Ichthyosaurus*: they plainly show that its general external figure must have been that of a huge predatory, abdominal fish, with a longer tail and a smaller tail-fin; scaleless, moreover, and covered by a smooth or finely wrinkled skin, analogous to that of the whale tribe. The mouth was wide, and the jaws long, and armed with numerous pointed teeth, indicative of a predatory and carnivorous nature in all the species, which deduction has been corroborated by the frequent discovery of masses of partially digested fish bones and scales, which have been discovered under the ribs of the fossil specimens. In the order *Sauropterygia* there are no post-orbital and supra-temporal bones; large temporal and other vacuities between certain cranial bones; a foramen parietale; two antorbital nostrils; teeth simple, in distinct sockets of the premaxillary, maxillary, and premandibular bones, rarely on the palatine or pterygord bones; maxillaries larger than premaxillaries; pleurapophyses with simple heads; those of the trunk long and bent; limbs natatory, not more than five digits. The *Plesiosaurus* was the most familiar example of this interesting order, and justified in its osteological structure somewhat the fanciful description which had been given of it, as the body of a serpent threaded through the trunk of a turtle. The vertebræ are lengthened and cylindrical, specific characters being afforded by the proportions of the vertebral centra, the relative size of the cervical ribs, the relative position, shape, and prominence of the costal articular surfaces; the flatness or concavity of the terminal articular surfaces; the relative length of the neck relating to the size of the head; and the structure and relative size of the fore and hind paddles. The *Pliosaurus* was essentially allied to *Plesiosaurus* in its character, whilst it differed in the shorter length of the neck. As compared with those of *Plesiosaurus*, the teeth are thicker in proportion to their length, are subtriedral in transverse section, with one side flattened, and bounded by ridges from the more convex sides. The vertebræ of the neck are compressed, as in *Ichthyosaurus*; but the articular surfaces are flat, and as many as twelve vertebræ may be compressed within the short neck. The *Nothosaurus* was a *Sauropterygian*, discovered in the muschelkalk of Germany, and which approaches towards the *Plesiosaurus* in the modification of the trunk vertebræ. *Nothosaurus* has twenty cervical vertebræ. The premaxillary and premandibular bones are powerfully armed with strong trenchant teeth, of which there are two similar ones in the maxillary. The *Placodus* possessed a most extraordinary form and size of the teeth, which resemble paving-stones, and were evidently adapted to crack and bruise shells and crusts of marine *Invertebrata*; the palatal teeth, three in number on each side, are all of large size, slightly increasing from before backwards, the last tooth, in proportion to the size of the entire skull, being the largest grinding tooth in the animal kingdom, not excepting the elephant

The *Tanystrophæus* was a species of *Sauropterygian*, in which the long, slender, hollow centrums of the vertebræ misled their first observers into the impression that they were bones of the limbs. The character of the articular surfaces, however, demonstrated their true nature. The characters of the genera *Pistosaurus*, *Conchiosaurus*, *Simosaurus*, *Sphenosaurus*, and *Polyptychodon* were also given. The order *Thecodontia*, of which remains have been found in the Permian conglomerate of the neighbourhood of Bristol, have the teeth, with the crown more or less compressed, pointed, with trenchant and finely-serrated margins, implanted in distinct sockets. The limbs were ambulatory, and the femur had a third trochanter. The genera *Thecodontosaurus*, *Palæosaurus*, *Belodon*, *Cladyodon*, *Bathygnathus*, and *Protorosaurus*, were mentioned: the historical interest attached to the last was, that it was the first vertebrate fossil ever scientifically described; it was mentioned by Spener in the year 1710, having been derived from the Permian *Kupferschiefer* of Thuringia. In the order *Anomodontia* the teeth are wanting, or limited to a single maxillary pair, having the form or proportions of tusks; a "foramen parietale;" two external nostrils; tympanic pedicle fixed; vertebræ biconcave; trunk ribs long and curved, the anterior ones with a bifurcate head; sacrum of more than two vertebræ; limbs ambulatory. The first family of these most singularly modified reptiles is that which includes the genera *Dicynodon* and *Ptychognathus*. Evidences of these are confined to the triassic sandstones of the Rhenosterberg, and other localities in Southern Africa. They combined annectant affinities with the *Crocodilia*, *Chelonia*, and *Lacertilia;* whilst, on either side of the maxillary bone, they developed two large sharp-pointed tusks growing downwards. These were the only teeth in the jaw; the mandible, as in the *Chelonia*, being, probably, defended by a plate of horn. The vertebræ were amphicœlian. In the genus *Ptychognathus*, closely allied to *Dicynodon*, the form of the supra-occipital bone closely resembled that in carnassial mammals. In the family *Cryptodontia* the upper as well as the lower jaws were edentulous, or with inconspicuous teeth. The most remarkable genus *Oudenodon* afforded a most remarkable structure. Under the centre of the orbit, a vertical, thickened, round ridge projects from the maxillary, precisely in the position of the alveolus of the tusk in the *Dicynodonts*. It suddenly subsides upon the alveolar border, which is imperforate and entire, merely forming a low, obtuse, angular projection upon that border. When sections of this ridge were made, it was demonstrated to be solid, without any vestige of the germ of a tooth answering to the tusk in *Dicynodonts*. The genus *Rhynchosaurus*, which has been discovered in the triassic sandstones of Shropshire, was also edentulous, as in *Chelonia*. In the family *Cynodontia* a pair of teeth is found, which resemble, in shape, position, and relative size to the other teeth, the canines of carnivorous mammals, and which divide the incisors from the molars. Examples of this family were given in the *Galesaurus* and *Cynochampsa*, of which the former exhibited in its dentition an approach to the mammalia, at the same time that it manifested, on the whole, a generalised type of Saurian organization. The next lecture will be devoted to the *Dinosauria* and *Pterosauria*, and will conclude the course with a notice of the supposed "feathered reptile," or *Archæopteryx* of Solenhofen.

DR. RADCLIFFE'S LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

During the past week Dr. Radcliffe has delivered the second and third of these lectures. The second lecture was devoted to the consideration of the electrical condition of living muscle and motor-nerve during muscular contraction, and the chief points insisted upon were these:—1. That in rigor mortis all signs of electricity have disappeared from muscle and motor-nerve. 2. That in ordinary muscular contraction, the signs of electricity which previously existed in the muscle and motor-nerve are greatly diminished; and 3. That in ordinary muscular contraction the contracting muscle and the nerve belonging to it are traversed and surrounded by an instantaneous current of high tension electricity analogous to the discharge of the torpedo. In all these respects muscle and motor-nerve were shown to be obedient to the same law. Dr. Radcliffe went very fully into this intricate subject, and set forth, in a very clear manner, by means of many ingenious diagrams, the various facts which have been brought to light, during the last fifteen or twenty years, by the labours of MM. Matteucci, Dubois-Reymond, and others. In particular, he showed how the contradictory statements of MM. Matteucci and Dubois-Reymond, with respect to the electrical condition of muscle during contraction, may be reconciled, by showing very plainly that the investigations of neither of these physiologists were complete without those of the other. He showed, indeed, that the movement of sinking in the muscular and nerve-currents during contraction, of which M. Dubois-Reymond has supplied the proof, must necessitate the development during contraction of the instantaneous current of high tension, of which M. Matteucci has furnished the evidence, by showing that it is a law of electricity that electricity in motion must determine the development in and around the circuit of instantaneous currents of high tension electricity,—the extra-currents and the induced currents of Faraday. And this conclusion is evidently of high importance, for there can be no doubt that the contradiction of these two great authorities with respect to the electrical condition of muscles during ordinary contraction, is one chief reason why the subject of animal electricity has been looked upon as one in which, from Doctors disagreeing, no safe conclusion could be arrived at. The lecture ended by an attempt to show that the electrical history of nervous action during muscular contraction is strictly analogous to the history of that action which causes the discharge of the electrical organ of the torpedo, and that the discharge of this animal is nothing more than the instantaneous current of high tension electricity which attends upon every action of the nerves of the electrical organ, no less and no more than upon the action of the nerves of the muscles. The third lecture dealt with a very difficult problem—viz., *the action of artificial electricity in muscular motion;* and here, unfortunately, the hour came to a close before the lecturer could state the conclusions which he was upon the point of drawing from the various facts with which he had had to do. Many of these facts were new; all were put in a new and striking relation to each other. The substance of the argument, so far as it went, may be stated to be as follows:—(1.) That instantaneous currents of high tension electricity are necessary to produce contraction, and that continuous currents of low tension electricity have not this power. (2.) That the natural electricity of living muscle and motor nerve is weakened by that action of these instantaneous currents of high tension which produces contraction; and that the amount of contraction is directly proportionate to the degree of this weakening. (3.) That the remote action of a direct or centrifugal voltaic current upon a motor nerve is one which destroys rapidly, and with equal rapidity, the electricity and the motor power of the nerve; and that the remote action of an inverse or centrifugal voltaic current upon a motor nerve is one which preserves the motor power of the nerve for a long time, exalts it, and even restores it more than once after it has been destroyed by the action of the direct current, and which, at the same time, and in like manner, preserves, exalts, or renews the electricity of the nerve. And, (4.) That the immediate effect of a direct or centrifugal voltaic current upon a motor nerve is one which at once favours the production of contraction, and diminishes the electricity of the nerve; and that the immediate effect of an inverse or centri-

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petal current upon a motor nerve is one which at once resists the production of contraction and augments the electricity of the nerve. Many experiments of MM. Ritter, Dubois-Reymond, Eckhard, and others, were cited in proof of these conclusions—and the conclusions were seen to explain many difficulties—among others, Nobili's "law of contractions," and the "voltaic alternatives." In the course of the lecture, Dr. Radcliffe showed, in various ways (and this was evidently one of the chief points in the lecture), that many questions became greatly simplified by adopting that view of the primary electrical condition of living muscle and motor nerve in the state of rest which he had advocated in his first lecture—by looking, that is to say, upon this condition as one of statical, and not of current, electricity. He showed, indeed, that the differences in the action of the direct and inverse voltaic current upon a motor nerve may be resolved into differences in the action of the two poles upon the nerve, the free positive electricity of the nerve being intensified by free positive electricity proceeding from the positive pole, or weakened by free negative electricity proceeding from the negative pole. The problems, without doubt, were sufficiently perplexing, but, in our opinion, they were not a little simplified by the way in which they were stated by the lecturer. Many highly important and less complex questions remain for discussion in the next lecture—among others, the action of nervous influence and blood in the action of muscle and motor nerve. After this, Dr. Radcliffe will have to deal with pathological, and, therefore, with "practical," matters.

ALLEGED CASE OF POISONING AT YORK.

The family of a Mr. Cooke, an optician, living at York, have, it is said, been poisoned by a quantity of arsenic, introduced surreptitiously into their flour-bin. They were all made more or less ill, but have since recovered. It is alleged that an analysis of some mince-pie, and a portion of the flour of which it was composed, has revealed the presence of a considerable quantity of arsenic. Suspicion has fallen upon a Mrs. Maria Edwin Cooke, the wife of Mr. Cooke's eldest son, who lived apart from the rest of the family. This person has been arrested, and brought before the Lord Mayor of York, on the charge of poisoning. A servant of the prisoner deposed that her mistress had once offered her £5 to mix something in her father-in-law's flour-bin. On her refusal the prisoner said that, if the witness would not assist her, she (the prisoner) would not think anything more about it. Mr. W. Reed, Surgeon, of York, proved having attended the family on three distinct occasions, when they were suffering from the effects of poisoning by arsenic, or some other irritant poison. On the last occasion of poisoning precisely the same train of symptoms presented themselves as had appeared on two previous occasions. The prisoner, who is described as young, very ladylike and prepossessing in appearance, simply contented herself with asserting her innocence. She was remanded, but allowed to go out of custody on finding two sureties of £100 each.

LUNDY *v.* BROXHOLM.

We need not enforce the moral of the following case, which has lately been tried in the Court of Exchequer. Of its merits we know no more than is contained in the law report. The impolicy of endeavouring to raise a Professional reputation, by detracting from that of a brother Practitioner, is as glaring as the wrong. It is much to be regretted that the plaintiff and defendant did not—the one by offering, the other by receiving, an early apology, or an explanation and denial made before all the parties concerned—avoid the scandal of an action:—

"This was an action for slander spoken by the defendant, a Medical man, of the plaintiff, who is also a member of the same Profession,

"Mr. Serjeant Shee and Mr. Gates were counsel for the plaintiff; Mr. Henry James appeared for the defendant.

"The plaintiff complained that the defendant had said to a Mr. Cromwell, whose father the plaintiff had been attending, 'Your father has not been properly treated. Had he been cupped and salivated three days since, his life would have been saved, but now he is a dead man in two days.'

"The defendant denied that he had any recollection of ever having used the words imputed to him, but expressed his readiness to apologise for anything that he might have said that would bear a construction prejudicial to the plaintiff's honour, or against his Professional reputation, if the plaintiff felt that he had been guilty of such misconduct. As the plaintiff wished an apology to be written and advertised in the public papers, and the defendant declined the proposition, the present action went on.

"Mr. Henry James now said that he had been instrueted to say that which his client had ever been ready to say, that, although he had no recollection of having made use of the expressions the plaintiff had charged him with, he was perfectly willing to retract anything that might bear a misconstruction, and publicly say that he saw no reason for any imputation to rest upon the plaintiff's personal or Professional reputation.

"The apology having been accepted, a verdict was entered for the plaintiff for 40s. damages—enough to entitle the plaintiff to costs."

HOLLOWAY'S OINTMENT.

The wholesome law against secret remedies, which obtains in France, has given rise to an action in the Court of Common Pleas, between a Dr. Sillen, calling himself a Swedish Physician, and the notorious vendor of quack pills and ointment—Holloway. The latter engaged the former to introduce and advertise his nostrums in France, for which service he was to receive £1000. The plaintiff, Sillen, went to Paris accordingly, and ultimately obtained a patent for the ointment alone, under the title—"*Pommade dite Holloway.*" An analysis of the ointment—which it was necessary to lay before the authorities—proved it to consist of lard, butter, turpentine, white wax, and yellow wax. The correctness of this analysis was, however, denied by Holloway, who refused to pay the stipulated sum of £500 for the introduction of the ointment, on the ground that a *brevet* was of no use to him, and that the *brevet* was taken out in Sillen's name, and was for pommade, not ointment. A verdict was ultimately entered for the plaintiff, with leave to the defendant to move the court. The introduction of the pills in France had been given up by the defendant as hopeless. To physic themselves to death with drugs, respecting the nature of which they are perfectly in the dark, is a privilege denied to our neighbours on the other side of the Channel.

THE LOW DEATH RATE OF THE SUMMER OF 1862.

In his quarterly return of marriages, births, and deaths, the Registrar-General tells us, that in the summer quarter of this year the annual rate of mortality was 1·797 per cent. of the population, against an average derived from ten summers of 2·020 per cent. In these ten summers there is but a single example of so low a death-rate—viz., that furnished by 1860, which was 1·718. In the country districts the rate of mortality was 1·536 (the average being 1·747); whilst in the urban populations it was 2·011 (the average being 2·328). The causes, meteorological or of whatever kind they may have been, which exerted a wholesome influence on the population generally, saved, in the country, in every 10,000 persons 16 lives, and in towns double that number—viz., 32 lives. He adds:—"The remark is obvious enough, but it may be conceded, because it is in accordance with the facts stated, that if there is dirt to be removed by water, or miasma to be checked by cold, the part where such nuisances most abound will be most benefited by the destruction or removal of them." Speaking of the lamentable consequences to us of

the American civil war, he says:—"The districts of the cotton manufacture were not prevented by the distress from participating in the benefit: they cannot show that, if Lancashire had been prosperous, the health of its people would not have been still better, and a further reduction of mortality obtained. It is matter, not of speculation but fact, that winter approaches, and that the cold of winter swells the bills of mortality by attacking the old, the young, and the infirm of middle age; and it needs not the gift of prophecy to predict, that if cold and want, prolonged and embittered, attack a population with combined force, it must fall as if under an armed host. To arrest or mitigate such a result, food, clothing, bedding, and firing must be dispensed by a public or private charity that can rise to the greatness of the occasion."

SAUSAGE MEAT.

We extract, from a recent weekly report of the Medical Officer of the City, the following important but nasty truth. After stating that 4525 lbs. of meat and 73 head of game and poultry had been seized as unfit for human food, he adds:—"The inspectors inform me that much of the diseased meat of Newgate Market finds its way to the sausage-makers of Cow-cross. Last week the inspectors seized the carcases of a diseased sheep and a pig which were being carried to a sausage-maker in that locality. The sheep had died from rot; and the pig was covered with small abscesses, like boils, many of which had burst through the skin, and the rest were still full of matter. Both of these animals were in a shockingly diseased state, and, but for the interference of the inspectors, would have been converted into sausages. I have also to state that the slaughter-houses of Cow-cross, which are just outside the City, are a source of great anxiety to the inspectors, from the circumstance that diseased animals are frequently slaughtered there, and brought into the City markets."

THE PREVENTION OF DISEASE IN POTATOES.

The *Scottish Farmer* has an interesting account of a paper read at the West Lothian Agricultural Club, by Mr. Cadell, on the "Produce of Potatoes with Different Manures, and on the Prevention of Disease." The moral is, that a good admixture of manures will alone raise the largest and the healthiest produce:—

"In a plot of ground dunged with byre or farm-yard manure alone, an ordinary mode of dunging, the produce was 101 lbs., or 9 tons per imperial acre, being the smallest produce of the first eleven trials; while the plot with half byre dung and half sea-ware [seaweed?—*zostera?*] produced the largest by 265 lbs., being the extraordinary quantity of 23 tons 13 cwt. per imperial acre; and, while of the former there were 14 lbs diseased, there were only 2 lbs. of the latter. Singular it is that, while mixed with byre manure the sea-ware produced this wonderful crop, when used alone it produced only 180 lbs., and of this 19 lbs. were diseased. Next in effect comes Bolivian guano, producing 206 lbs., but with 11 lbs. diseased; parallel with which, and with less disease, is byre manure, with lime and with wood ashes; and after these, dissolved bones, producing 200 lbs., with only 5lb. diseased; while the crop manured with the lime and the wood ashes, as compared with that manured with byre dung alone, was doubled, at the same time the disease was reduced from 14 per cent. down to one-fourth per cent. The effect of the salt used was just half the effect of the lime alone, and that of the mixture of lime and salt jointly was a medium produce between the salt and the lime: the effect in diminishing the disease was the same in both these plots."

We have examined a great many specimens of diseased potatoes this year, and find that the disease begins and spreads by preference in ill-developed potatoes or parts of a potato. Where the cells are bursting with starch, and in such potatoes as boil into a floury state, there is little or no disease. Where, on the contrary, the potato is composed of a mass of empty cellular tissue, corresponding to that which will not boil into a mealy state, there the disease spreads. Whether it be disease in potatoes, or scrofula, typhus, or scurvy in man, a due admixture of all sorts of chemical elements in the food, seems to be the best preventive.

NEW PAMPHLETS.

The *Edinburgh Veterinary Review* for August contains the particulars of an outbreak of epizootic aphthæ in a farm near Kelso, during which the unwholesomeness of the milk furnished by the cows was manifested. The milk cows were contaminated, apparently by the dairymaid, after the reception upon the farm of a diseased calf. The litter from the milk cows was thrown out amongst the straw cattle and pigs, and the latter received also large quantities of the diseased milk: both were attacked. While the disease was at its height, several of the farm servants' children, who had partaken of the milk, suffered from derangement of the alimentary canal, with sickness, pain in the bowels, diarrhœa, etc., but nothing is said about any specific eruption. On discontinuing the milk the disorder ceased. The editor states that he has noticed deaths in pigs and calves fed on such milk, besides eruptions on the hands of human beings, which were conclusive as to the danger to man from contamination by the specific virus of epizootic aphthæ. He suggests that the eruptions so common about the mouth, face, and body of infants, reared, as they sometimes must be, on cow's milk, may be due to such a cause. We think that here he goes rather too far. There is evidence that the warm, newly-drawn milk can communicate the specific disease to the human subject who drinks it, but that the same milk when cold may be drunk with impunity. Besides, the eruptions he speaks of have not the pathological identity necessary to establish his hypothesis, and occur in town children who get no milk at all, or very little.

The *Report of the Grant Medical College at Bombay*, for its sixteenth year, testifies to its success in rearing a class of educated native Practitioners. Up to the present time it has exercised a right of licensing to practise. That right is now vested in the University of Bombay, and the Grant Medical College takes rank, in future, as an affiliated institution. Great credit is due to Sir Robert Grant for his courageous and persevering efforts in this educational field. His aim "was to qualify a class of Practitioners in Medicine, to displace the hakeems and weids, whose ignorance was such as to render them rather injurious than useful to the people. There were not wanting many who believed Sir Robert Grant's views and expectations to be chimerical. It was said that the prejudices of the people in favour of native modes of treating disease were so strong and insurmountable, that native Medical men, practising upon the European system, would neither be appreciated nor employed. There are, at the present time, thirty-three graduates of the College practising their Profession in Bombay, and two in the Mofussil; they hold no Government appointments, and, consequently, depend for their support upon the income they derive from their practice. In addition, there are nineteen in the employment of Government or of native princes."

A pamphlet advocating free trade in Physic has just issued from the French press. It is entitled "*La Médecine et le Monopole*," by Dr. Romain Vigouroux. In his country the laws relating to the practice of the healing art are more severe than with us, where the wrongful assumption of a Medical title is alone a punishable offence. Those amongst us who think that a more strict legislation is desirable here, will do well to see what Dr. Vigouroux has to say on the other side. His pamphlet is worth a perusal.

We have received, in common, we presume, with other journals, a copy of Captain Melville White's Narrative of the Treatment he received last year from the Peruvian Officials at Callao and Lima. Horrible and barbarous are terms too mild to apply to it, for his narrative rivals all the most loathsome of the tales of the Spanish Inquisition, and the accounts which

have reached us from time to time of prison life in Naples under the old *régime*, or in the Celestial Empire. Captain White impeaches the British Consul at Callao; and if he do not exaggerate, our countrymen will, for some time to come, be disposed to trust for their safety in Peru rather to their own wits than to the protection of the representative of the British Crown.

REVIEWS.

On Eccentric and Centric Force: a New Theory of Projection. By Henry F. A. Pratt, M.D. London. 1862. Pp. 294.

We must apologise to Dr. Pratt for having so long delayed to notice his somewhat learned and abstruse work, and we should be glad if in so doing we could at the same time offer him any compensation for our omission, by presenting our readers with a detailed analysis or criticism of the views which it contains. But even if the subject to which it refers were not of such an abstract and theoretical character, as to possess little interest for those who are engaged in the practical and absorbing occupations which fall to the lot of the large majority of Medical Practitioners, we fear that any attempt to convey an adequate idea of the train of reasoning by which he seeks to establish his hypotheses, or to discuss their soundness, would lead us far beyond the limits which the space at our disposal necessarily imposes upon us. We may, however, state that, so far as we are able to comprehend the meaning of his views at all, they may be fairly set down as belonging to one of the three following categories: those in which he is perfectly in accordance with the teachings of well-recognised authorities, upon whose previous labours he throws no sort of new light; those in which he has the misfortune to differ *toto cœlo* from such authorities, and in a manner which, if not satisfactory, is at least intelligible to his readers; and those with respect to which we must, for our own part, protest that he is neither satisfactory nor intelligible.

As we have said, it would be impossible for us, with any regard to the claims upon our space, to enter upon any discussion of the questions which Dr. Pratt raises; nor have we the least hope that any remarks of ours would have any weight with an author who congratulates himself upon having so satisfactorily demolished the long-cherished *idola* of the scientific world as he does. We will merely content ourselves with stating, that the main object of Dr. Pratt's book is to completely refute the Newtonian theory of gravitation, as applied to the explanation of the movements of the heavenly bodies, and to offer in its place one, by means of which the whole of their complicated motions can be adequately accounted for. As Dr. Pratt remarks, the prospect of the reception which must attend so ambitious an attempt is anything but encouraging; and we can only say, that, should he not come out of the ordeal to which the publication of his views may expose him, with the success of a victor, it will not be from his failing to exhibit some of the characteristics of a martyr. There is an air of uncompromising opposition about his statements, and an evident consciousness of being a little in advance of the intelligence of his age, which would be not unworthy of some of those stubborn old heretics who, in former days, fell victims to the illiberality and narrow-mindedness of the generation amongst which their evil lot cast them.

It is hardly worth while to correct one individual error where there is so much to which we must radically and entirely object; but there are two assertions in the first page of Dr. Pratt's preface, with respect to which he will, perhaps, allow us to put him right. The first is, that Newton's theory did not, at first, win for itself any great amount of general approbation,—a remark which would lead to the inference, that it was met by that opposition or neglect which has so often been the meed accorded by the world to the discoveries of its greatest geniuses. So far, however, from this having been the case with Newton, no scientific man ever received earlier or more gratifying proofs of the appreciation of his labours by his contemporaries than he did. Immediately on the publication of his system—and, in some cases, even before its publication—it was warmly endorsed by Halley, Wren, and other leading members of the Royal Society; and, from the date of its appearance to that of his death, he was made, as a recognition of its importance, the constant recipient of some of the most substantial and distinguished honours which his queen or country could bestow upon him.

It is true that Newton's views had scarcely any adherents in France until they were introduced there by Voltaire in 1728 (not 1732, as stated by Dr. Pratt), on his return from England, and that they were not unquestionably established in that country until nearly thirty years after their great author's death; but this fact was due partly to their having wanted an efficient expounder, and partly to the national jealousy of Anglican ideas which at that time animated the holders of the Cartesian views in France, more than to a belief in the tenability of the ponderous theories of their favourite chief. Even Fontanelle, the last of the Cartesians, and who never adopted Newton's views, speaks of him, at a date little posterior to that of his general recognition in his own country, as *one of the greatest geniuses of the age.*

Dr. Pratt's other misconception is, that the Newtonian theory rests upon a basis of assumptions. If by this he means that, when first propounded by Newton, it was put forth purely as a tentative hypothesis, he is not far from right: but if, as he evidently does, he wishes his readers to infer that the laws which Newton has laid down as governing the motions of the heavenly bodies are incapable of proof, he is entirely wrong. Of course, if, as he attempts to do, they can be shown to be fallacious, they would be no more than mere assumptions; but, until that is more successfully accomplished than it is by him, they will not cease to be regarded as real laws. Every law is, when first stated, an assumption, or hypothesis, constructed to meet the conditions and explain the relations of a definite series of facts; but, when once its conformity to those facts is established, it is no longer a hypothesis, but as positive a fact as those whose relations it was designed to explain. Thus the theories of one generation become the facts of the next, each addition to the rising superstructure of the edifice of science serving as a basis upon which new erections may be planted. So far from Newton's theory resting in its present form upon a basis of assumptions, there is no part of it which is not susceptible of the most rigid demonstration; and not only does it fully fit the facts to which it is applied, but, as may be shown, there is no other theory that does.

That there is much that is ingenious in Dr. Pratt's volume we are willing to admit; but no amount of ingenuity can atone for the singular obliquity of the reasoning faculty which it exhibits. We only hope that the next occasion on which we may have to welcome his appearance in print may be one that will enable him to do more justice to the knowledge and abilities which he evidently possesses than he has done on the present one.

A Compendium of Domestic Medicine and Companion to the Medicine Chest, comprising Plain Directions for the Employment of Medicines, with their Properties and Doses, and Brief Descriptions of the Symptoms and Treatment of Diseases and of the Disorders Incidental to Infants and Children, with Directions for Restoring Suspended Animation, and for Counteracting the Effects of Poison; also a Selection of the most Efficacious Prescriptions and various Mechanical Auxiliaries to Medicine; to which is added, an Appendix on Cod-Liver Oil, &c. By John Savory. Sixth Edition. Pp. 378. London: 1862.

The title-page of this work gives an analysis of its contents, and the words "Sixth Edition" show that it is a successful book.

On the Nature, Causes, Varieties, and Treatment of Bodily Deformities, in a Series of Lectures, delivered at the City Orthopædic Hospital, in the Year 1852, and subsequently. By E. J. Chance, F.R.C.S.E., F.L.S., F.G.S., Medical Associate of King's College, London, Surgeon to the City Orthopædic Hospital, etc., etc. With copious notes, and illustrated by numerous engravings drawn on the wood by the Author from cases in his own practice. In Two Parts. Part I. London: T. T. Lemare. 1862. 8vo. Pp. 304.

This is a good, practical, and original book; and there is a homely and genuine look about the engravings which puts us in mind of a good, plain dinner at a farmhouse, in contradistinction to a feed at a house where they get things from the pastrycook's. The book looks as if it were the author's own work, and drawn from the cases and materials which his experience has supplied him with. This First Part of Mr.

Chance's work is rather ætiological than anatomical or therapeutic. All the varieties of deformities are classified under the head of their real or alleged causes, and the author takes very wide ground, devoting a considerable portion of his space to embryology, in which branch of science he seems to have studied much. We think that there can scarcely be any deformity, original or acquired, which does not find its place and classification, with a graphic illustration, in these pages; and when the Second Part appears, we hope to be able to give some account of the writer's anatomical researches and means of treatment.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

December 1, 1862.

Shall we have pestilence as well as want in Lancashire this winter? is a question which must have occurred to most who have thought much about the present distress. In this town, the indications afforded by our present sanitary condition are such as should, at any rate, demonstrate the necessity of provision being made to meet the exigencies which must arise, should any considerable addition be made to the already existing disease of the suffering towns.

On November 26, Dr. Duncan reported to the Health Committee that the registered deaths, which, in the two previous weeks, were 251 and 286, rose last week to 317, being 71 more than the corrected average, and a greater number than in any week of the preceding eight years: 206 deaths were in the parish, 111 in the out townships. The inclemency of the weather appeared to have caused an increased prevalence of inflammatory affections of the lungs. These and phthisis occasioned 92 deaths, the average of the previous four weeks having been 70. Zymotic diseases caused 111 deaths, against 108 the previous week; the corrected average being 63. Of these, scarlatina caused 52, typhus 24, whooping-cough 11, measles 5, diphtheria 3, diarrhœa 4, croup 3, chicken-pox 1, small-pox 1—an unvaccinated infant.

The temperature was low throughout the week, and on Tuesday and Wednesday was 8° below the average. The mean of the week, 39·1°, was more than 5° lower than that of the same week of the preceding 16 years.

It will be seen, from these statements of the Officer of Health, that we have among our population an excess of more than two-thirds over the usual amount of mortality from zymotic disease. It must be noticed, however, how large a proportion of this excess is due to scarlatina, while the deaths from typhus are not nearly so numerous; they are, however, more than double the usual weekly average. The mortality from any disease is not, I think, a sure criterion as to the amount of it which may be prevalent.

I, therefore, inquired as to the number of cases of fever at the Parochial Fever Hospital, and find the numbers to be as follows: for the week ending—

Nov. 5, 1862	75	Nov. 4, 1861	24
„ 12 „	85	„ 11 „	24
„ 19 „	78	„ 18 „	29
„ 26 „	71	„ 25 „	29

During the four weeks referred to in this year there have been only eleven deaths. In the corresponding period of last year there were eight. The most prevalent type is that of simple typhus, any abdominal complication being very rare.

Now, considering that we feel, in this town, comparatively little of the dire distress which prevails elsewhere, it is, I think, evident that, if zymotic disease once gains a footing among the famishing populations of the cotton-manufacturing towns, who are so much worse off than the working people of Liverpool, its increase is likely to be very serious in amount. I regret to see that Liverpool, in one respect, contrasts rather unfavourably with the suffering towns around; for whereas, in most of them there is, I believe, a marked diminution of intemperance and crime, the report of the head constable, which has just been published, shows that, during the year ending September 29, the number of cases of drunkenness was 12,076, against 9832 in 1861, and 10,963 in 1860. Stabbing cases were this year 130, against 135 last year. A somewhat remarkable case of this kind was admitted into the Royal Infirmary about two months since, in which a wound was given with a large knife used for cutting cheese. The weapon passed through the spleen into the stomach. The patient was conveyed to the Infirmary as quickly as possible, but died about ten minutes after his arrival there, having survived the injury about half-an-hour. On a post-mortem examination, the stomach was found almost full of coagula. The other day (27th), three stabbing cases were admitted at once, all the work of one individual, a butcher, who made a deliberate attempt to murder a woman with whom he had lived, and who had left him for some other man. He attacked her with an ordinary butcher's knife; happily for his victim, she fell forwards, and most of his blows came upon her back. One of the wounds passed from the back of the neck forwards to the transverse processes of the vertebræ, and two penetrated the chest. In all, fifteen wounds were received by this unfortunate woman. She expectorated a great deal of blood, and the air passed freely through the wounds in the chest, but there was no collapse of the lung. For some time she appeared likely to sink, but rallied considerably within twenty-four hours after the receipt of her injuries, and is now progressing favourably.

There is, at present, in the Northern Hospital, a poor fellow, under the care of Mr. Manifold, who received injuries, necessitating amputation above the elbow, from the claws of a lioness. The man was employed in a circus recently opened here, in which equestrian performances are varied with those of sundry wild beasts. He was raising a shutter which was placed in front of the bars of the cage in which a lioness was kept, when the beast suddenly stretched out her paw between the bars, caught the man by the shoulder, and partially drew one of his arms into the bottom of the cage. With one blow of her paw, which took effect upon the back of his hand, she shattered all the metacarpal bones, and completely smashed the soft parts. She then struck him just about the elbow, and, fixing her claws in the flesh, lacerated the integuments frightfully, and stripped all the extensor muscles from their attachments. Happily, assistance was close at hand, and he was speedily rescued. The arm was amputated the same evening (November 13), and he has since progressed perfectly well. The slight wounds on the shoulder, made by the creature's claws, have not shown a disposition to heal so readily as the stump, and remain very irritable. The patient says that the men employed in tending the beasts were frequently scratched by them, and that they never find the wounds heal readily. The application most in vogue among them is "Friar's Balsam," the use of which they think very important.

Among the most important Medical events since my last letter has been the laying of the first stone for a new Hospital for Birkenhead. The small house which has hitherto been the only Hospital within reach of the docks and works in Birkenhead, has been found quite inadequate to meet the demand made for accommodation for cases of accident, etc., and Mr. Laird, M.P. for the borough, has most nobly placed £5000 at the disposal of the committee to build a new one. The building is to accommodate between 40 and 50 patients, and is to be so built as to be easily capable of enlargement; and it is calculated that an outlay of £40 for each bed added will enable the committee to make room for a hundred patients or more, should this prove necessary. The only condition attached by Mr. Laird to his gift is, that the money invested in the Hospital shall be for ever applied to the same purpose for which it is given; but a most sensible proviso is made in the trust deed, that if, in consequence of the development of the town, the land on which the Hospital stands shall become much enhanced in value, the trustees are empowered to sell it, and devote the proceeds to the purchase of another Hospital. The site has been well chosen, being bounded on one side by the park, and on the other by wide and well-drained streets. The building will have two storeys above the basement. The axes of the wards are placed north and south. They are provided with windows on both sides, one for every two beds, as well as one at the end of each ward, which can be left open at night without the patients feeling any draught from it. The superficial area allowed for each bed is 110 feet, and the cubic space for each 1430 feet. There will be, to begin with, four wards, forming the wings of the building Attached to each ward is a nurse's room, bath and washing-room, water-closet, and scullery. There will, besides, be a special accident-ward, and all the usual accommodation for House-Surgeons, matron, servants, etc. The Dispensary will

be distinct from the Hospital. The walls and ceilings of the wards will be covered with Parian cement, which will form a polished and completely non-absorbent surface. The floors are to be of polished oak, and the stairs of stone. I have no doubt that it will be a structure worthy of the town, and one which will keep the name of its donor in grateful remembrance many generations hence.

Have your readers heard of the "last sweet thing" in the way of quackery?—Are they aware of that therapeutic system which exults in the name of *Baunscheidtismus*, and which is to cure everything from scabies to hydrophobia? Its euphonious name is a derivation from that of its founder, Dr. Baunscheidt, who is alleged to exist at Bonn. Liverpool is at present endowed with one of his followers, who, the other day, made a modest request that he might be allowed to put his system in force upon any sick paupers in the Workhouse Hospital, who might be given up as hopeless cases by the Medical men under whom they were. He was referred to the Poor-law Board, and they, I believe, forwarded his letter to the Vestry here, by whom he was told that it was impossible that they could interfere in the treatment of patients. He then suggested that, if the Vestry would recommend to the Medical Officers a trial of his scheme, they might be disposed to fall in with a hint thus given; but, finding them still obdurate, he seems to have lost heart, and has not ventured upon an appeal to the Medical Officers themselves. I was informed by a gentleman, to whom the system was explained, that the Professor produced an instrument, entitled a "health regulator," something like a stethoscope, and a little bottle containing a fluid looking very like hair-oil. The instrument was so contrived that a number of needle-like points could be protruded from it; a number of punctures being made over any locality the health of which might be supposed to require regulating, the fluid was to be rubbed in, and the disease was to go out. What the composition of this invaluable fluid may be, I am unable to say, since on this point no information was vouchsafed.

GENERAL CORRESPONDENCE.

CASE OF IMPREGNATION WITH IMPERFORATE HYMEN.

Letter from Dr. John McOscar.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following case being of rare occurrence, and very important in a Medico-legal sense, you may deem it worthy of insertion:—

Mrs. H., then unmarried, engaged me to attend her during her confinement. Intercourse had been frequent, although never complete, and she could not believe herself pregnant until forced into the belief by her mother. Sharp labour pains began on the afternoon of December 19, 1859, when I was sent for. On examination, I could not pass the index finger into the vagina. The membranous septum was so complete that I could not detect the smallest orifice, and a considerable degree of force was necessary to rupture it. The head presented, and the labour was a tedious one, requiring delivery by forceps on the following afternoon.

This case further illustrates a fact, which was doubted by Dr. Ramsbotham in the *Medical Times and Gazette* of July 19, 1862, viz., the possibility of any injury to the child's head, resulting from the application of the forceps, capable of producing slough and consequent cicatrice. I am confident that sloughing occurred in this instance (from the forceps) on one side of the head, and to the extent of nearly two inches. It may, indeed, be a matter of wonder how the child's head escapes so often scathless, after undergoing such an amount of pressure as is found frequently necessary to effect delivery. Dr. Mitchell, in a previous Number of your valuable Journal, advocates the frequency of idiocy from the application of the forceps. This case, and many others that have fallen to my let, do not bear out such an unfortunate sequence from their use. It may be that Dr. Mitchell himself does not object to the timely application of such a valuable auxiliary in the hand of the considerate and expert Accoucheur.

I am, &c.

4, Tyler-street, Regent-street. John McOscar, M.D.

ALLEGED POISONING AT LUDWELL.

Letter from Mr. A. B. Middleton.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with much pleasure your excellent article on this subject, which is certainly one of national importance. There are two or three points upon which it strikes me some stress ought to be placed. 1. At the first inquest it was stated by Mr. Cardell that the want of bad smell, and little or no decomposition of the body, were both indicative of arsenical poisoning; also a peculiar redness of the muscles was attributed to the pickling or antiseptic powers of arsenic. Now, this want of smell was readily accounted for, partly by the absence of the stomach and intestines, which had been taken away by Dr. Shettle, and partly by the extremely attenuated, skeleton-like state of the body. Furthermore, Dr. Harley gave in evidence that decomposition had taken place only a day or two afterwards, which would not have been the case had the pickling power of arsenic occurred. Again, in this latter event, the arsenic must have been present, but none was found by Dr. Harley, although he examined various viscera. Now, I have reason to believe that this antiseptic hypothesis, raised by Mr. Cardell, and agreed to by Dr. Shettle, although it proved entirely fabulous, made a great impression on the jury, as to arsenical poisoning. 2. You state that the evidence of Dr. Shettle, Dr. Herapath, Dr. Harley, and Mr. Cardell left no alternative to the coroner's jury but to return a verdict of death from the effects of irritant poison. Dr. Herapath was never examined before the jury; indeed, he was never officially employed at all, but was employed by Dr. Shettle in the most irregular manner, and his evidence appeared only before the magistrates when the poor lady was accused of murder. Again, wonderful to relate, Dr. Roberts was not subpœnaed, but had to volunteer his evidence, which was refused altogether by the magistrates, and was brought out before the coroner's jury by Mr. Chitty, an attorney employed to defend the accused woman. I repeat, wonderful to relate is this fact; for it was clear that no inquest could have been deemed complete without the evidence of Dr. Roberts, for it was well known to all concerned that Dr. Roberts was the only other Medical man who attended the deceased, and equally well known that his opinion entirely differed from that of Dr. Shettle. Ordinarily, then, to complete the inquest, Dr. Roberts ought to have been examined, where a charge of murder was involved; but in this case, taken out of all routine by the very extraordinary proceedings of Dr. Shettle, who appears to have been the promoter of the inquiry, surely the evidence of Dr. Roberts was most important.

Dr. Herapath's opinion, although unofficial, and not given before the jury, doubtless influenced them in forming their verdict, for it was published in the local papers a fortnight before the second inquiry; moreover, several of the jurymen had heard it given before the magistrates.

Upon public grounds, ought not such a verdict as herein recorded to be set aside?—for, as it now stands, every one who came in contact with Mrs. Kiddle is under the imputation of having poisoned her; for I am not aware that any of the poison-hunters ventured to raise the hypothesis of the poor deceased having poisoned herself.

I am, &c.

A. B. Middleton, M.R.C.S. Eng.

The Close, Salisbury, December 3.

MEDICAL EVIDENCE IN COURTS OF LAW.

Letter from Dr. W. S. Scholefield.

[To the Editor of the Medical Times and Gazette.]

Sir,—A very simple arrangement, if generally adopted, would, I imagine, bring about a great improvement in the method of taking Medical evidence in our Courts of Law.

Let the Medical witness confine himself to a statement of matters of fact directly and personally observed by himself in the case in hand, and refuse to go one step beyond this.

Present usage requires a Medical witness to perform a two-fold function. He is first required to state what he knows of the case—its facts, its history—as an ordinary witness; and then he is expected to give his opinion on these facts,—to go into the literature of the whole subject, and to act as Medico-legal adviser to the Court.

I do not agree with the Lord Chancellor in ignoring the value of scientific evidence in Medico-legal questions; but what I recommend is, that the duties of witness and adviser should not be undertaken by the same person. The duties are incongruous, and cannot usually be well performed by one man.

I believe the witness is not legally bound to state anything beyond what he has seen and observed. He is not obliged to reason on his facts. If he adventure upon an opinion, of course he must support his view. But if he confine himself to a statement of his personal observations in the case on trial, he fulfils the legal claims of society upon him.

I believe Dr. Todd refused to supplement his evidence in Smethurst's case with any opinion; having previously ascertained, by consultation with his ordinary legal adviser, that this reticence is allowable.

The step, then, which I propose, involves no change in existing law, and is, therefore, at once available by the Profession as a means of reform.

To secure the advantages which I hold would follow from such determination on the part of the Profession, unanimity is essential. If one or two only adopt this course, no good result will be obtained. But if the entire Profession resolve to abstain from expression of opinion when subpœnaed as witnesses to matters of fact, the Legislature would be driven to secure the services of Professional advisers, not personally implicated in the case. One man would witness, and another man would advise.

It does not appear necessary to enter into any elaborate argument to prove that the present system of requiring the same man to state both facts and opinions, is unfair to the witness, disadvantageous to the jury, injurious to the innocent, and of use only to the guilty. Allow me to mention, in a condensed form, one or two reasons adverse to the present method of procedure.

A witness is subpœnaed either on one side or the other. However honest he may be, he is looked upon either as a witness for or a witness against the prisoner. Even in his statements of matter of fact he is closely cross-examined on the supposition of bias. But if, in addition to matters of fact, he has to state his opinion as to the legal significancy of these facts, how can he be looked upon or treated as an unbiassed propounder of opinion? He is in the worst possible position for giving a scientific opinion. We know beforehand what his opinion is. It is the absence of bias, real or supposed, which gives value to opinion. But the witness is not in a position to give this unbiassed opinion.

Any Medical man, however young and inexperienced, however deficient in Medico-legal knowledge, however inexpert in the expression of his ideas, may become the principal witness in the facts of a case. He may state his facts with the utmost clearness; but when he comes to be examined on the entire literature of child-murder, for example, he may betray so much ignorance, as to make the jury believe that his facts are all fictions.

Moreover, when a man is thoroughly conversant with the entire subject, and when, as a witness on one side or the other, he is artfully questioned by those whose profession it is to ask questions in such a form as to receive the answer they wish for, it is then impossible for him really to express his opinion, because he is merely answering questions, and because it is possible to make a question involve its answer, if answered as put.

Sometimes life or death depends upon the opinion of the Medical witness. This is a dangerous responsibility. There is danger lest the instincts of the Profession lead him to an effort to save the criminal by metaphysical subtlety, when justice demands his death. And, moreover, the popular idea of Professional tendencies to the side of mercy, may, in cases where it is properly exercised, cause the opinion to have less weight than it ought, and thus, indirectly, lead to the punishment of the innocent.

Let us suppose now that all Medical witnesses refuse to give Medico-legal opinions. What then would happen? In the first place, the judge, or the jury, or the advocate, would be obliged to demand assistance. The men most eminent on the particular point in question would be called in.

The eminent men thus called in should at once refuse to be witnesses in the technical sense of the word. They should refuse to be subpœnaed either as for or against the prisoner. If subpœnaed, let them refuse to give any opinion. If not subpœnaed, let them appear as advisers of the Court.

Having heard all the facts of the case, let them state their opinion as to the meaning of these facts. Let this opinion be stated in a connected speech. Let the judge ask them any question he, or the jury, or the advocates may think proper; but on no account are they to be subjected to an ordinary cross-examination. They are not witnesses; they are judges of the meaning of Medical facts. They are disinterested; they are to be treated as such.

In the first instance, the known men of the Profession would be invited to assist the Court in its deliberations. This would lead very soon to the formation of a distinct class in the Profession. We should have a class of men devoting themselves specially to Medico-legal research, with a view to a special object. We should have among us men possessing both a legal and a Medical training. Our Professors of Medical Jurisprudence would take a prominent position in this new movement. Time only would show how things would eventually crystallise into form.

I am, &c.

Pickering. W. S. Scholefield.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, November 25, 1862.

Dr. Babington, President, in the Chair.

Mr. William Smith related a case of

POISONING BY OIL OF WORMWOOD (ARTEMESIA ABSINTHIUM).

The party taking the poison was a male adult. The quantity taken was probably about half-an-ounce. He was seen within a few minutes of its being taken. The symptoms produced were those of a narcotico-acrid poison, affecting the brain, spinal system, and stomach. He was insensible, convulsed, the jaw clenched, and foaming at the mouth; tendency to vomit was also present. The man recovered under the use of emetics, combined with stimulants and demulcents. All remembrance of taking the poison, or the cause of so doing, was completely wanting an recovery.

The President had never heard that wormwood was poisonous. He thought that it had gone undeservedly out of use. It was used by the ancients.

Dr. Webster said that a great deal of absinthe was used in France,—to so great an extent, and with such deleterious results, that the Government had issued a commission to inquire into the subject. It was said frequently to produce insanity. He was sorry to see that it was now largely sold in England.

Dr. O'Connor said that it had been used in this country as a cordial many years. It was worse, he said, than gin and tobacco put together.

Dr. Wynn Williams said that it was one of the chief ingredients of "teetotal drink."

A paper, by Dr. Horace Dobell, was read, entitled—

A CONTRIBUTION TO THE NATURAL HISTORY OF HEREDITARY TRANSMISSION.

The author exhibited photographs of a peculiar malformation of the hands, and a genealogical table of five generations. The deformity had been transmitted through four generations. It had only affected certain members of each generation, males and females, elder and younger children indiscriminately. The children of those who had missed the deformity were also free from it in all cases. It was more marked when inherited from the father's side than when from the mother's. In the fourth generation a marriage occurred between first cousins, each of whom had the deformed hands; but their children, the fifth generation, had perfect hands.

The President said the drawings looked like those of hands affected with rheumatic gout. He said that in one family congenital absence of the levator palpebræ was hereditary.

Mr. Fergusson said that one of the points mentioned by the author was singularly at variance with what was generally received. In one instance, in which ten of the family, each having the deformity, intermarried, the children had perfect hands. It was contrary, too, to the experience of breeders of

dogs, who could produce dogs with long legs or short legs by choosing two animals which had the respective peculiarities in a marked degree. He thought that the author's paper required some additional remarks, and that some doctrine ought to have been founded on his facts. As a Surgeon, his attention had often been directed to malformation, and he had also made inquiries into the cause. He had never obtained any satisfactory explanation from the parents. He thought that in defects of the upper lip and jaw the hereditary influence was very strong. He purposely avoided speaking of the effects of imagination, although a great deal might be said on that point.

Dr. Edmunds asked the author what was the character of both hands—if the deformity was symmetrical. The appearance of the hands was very like that of rheumatoid arthritis, as often seen in the lower ranks of life.

Mr. Charles Hawkins said that, in some families, transmission of defects occurred by the female side only. He instanced a remarkable case of transmission of the defect called "colour-blindness."

Mr. George Cooper related an instance of removal of a supernumerary toe and finger from a gentleman whose three children had the like deformity.

Dr. Hodgkin said the subject was very interesting, but very complicated. The value of the paper was, in giving, clearly, well-authenticated facts. To draw anything like a doctrine, we needed many such facts. Very many causes ought (Dr. Hodgkin said) to be taken into consideration. Deformities were not always errors of the nisus formativus, but of defects of development, as in hare-lip. Others were due to accidental injuries *in utero*. In a certain noble family, every member had a lock of hair of a lighter colour than the rest on the top of the head. In one case of which he had heard, a gentleman who doubted the fidelity of his wife, was convinced of her chastity by finding that his child inherited from him a deformity of the hand.

Dr. Wynn Williams said that he had found that cleft of the lip and palate was attributed by nurses to the child having had its thumb in its mouth *in utero*. Dr. Williams referred to a case in which pressure had caused enlargement of an opening in the palate. The patient had a hole in his palate, which prevented his speaking plainly. A cork was fitted in, but it was found that a larger cork was every now and then required. This case showed that mechanical pressure might cause deformity. He wished to ask Mr. Fergusson's opinion on these points.

Mr. Fergusson, in answer to Dr. Wynn Williams, said that for ten or fifteen years he had made repeated inquiries as to the cause of hare-lip and cleft-palate. He had not the smallest belief in the theory mentioned by Dr. Wynn Williams. The explanations given by mothers was most fanciful. In one of the worst cases he had seen, the mother ascribed the defect to a cat having leaped on her back during her pregnancy. He mentioned also another instance. He gave these particulars to show the extreme folly of such explanations. In one instance, a mother believed that her child's having an extra finger was due to her (the mother) having seen a boy's finger cut off. If any effect could be produced in that way it ought rather to have been just the reverse, viz., that the child should have had, instead of five, three fingers. He had put the question to one of the first histologists of the day, and the answer he received was, that hare lip was no doubt caused by the incisor teeth cutting the upper lip. Yet these teeth were not then developed. In reply to Mr. Charles Hawkins, Mr. Fergusson said that he had seen about four or five hundred cases of hare-lip, and had operated on three or four hundred. There was a tendency to hereditary transmission, but rarely was it fully developed. He had seen the defect propagated through five generations.

Mr. Pollock said that the arrest of development in the palate could not be due to pressure by the thumb, as the thumb was developed much later than the palate. In reference to pressure causing absorption of the palate, he agreed with Dr. Wynn Williams, and that it was, therefore, important not to plug holes in it with sponge or any other material.

Dr. Greenhow said the author's paper was a very valuable contribution towards the subject of hereditary transmission. He said that in one case which came under his own observation, a lady gave birth to a child with a double thumb, and some time afterwards her cousin gave birth to a child with the same deformity. There was, however, no other instance of this in the family. Dr. Greenhow then related an instance in which club-foot had occurred several times in one family. He said that we all knew that certain diseases were transmitted hereditarily, and he had observed that phthisis was now and then transmitted by one sex only.

Dr. Lee said that a fœtus without a head had been brought into the museum of St. George's Hospital. There was a vertebral column, a spinal cord, but no brain, no liver, and no heart, and only a small portion of intestine. The kidneys, ureters, and bladder were perfectly formed. He had felt greatly at a loss to comprehend how the circulation had been carried on in the body of the fœtus. He had examined and determined this with certainty. He had recommended Dr. Dickinson to send an account of this fœtus to this Society or the Royal Society; but he presumed his engagements prevented him. The mother and father could not have been without heads, and he could not conceive that the imagination of the mother could have had anything to do with the malformation. Some years ago he was called to a case of difficult labour not far from the Society. A head and arm were born, but the trunk could not be extracted, and the cause of this was not obvious. He passed up the crotchet, brought down the pelvis and lower extremities of the child, and the trunk, the other upper extremity and a second head and neck, were soon born. There was a trunk, two upper extremities and two lower extremities, and two perfect heads and necks. The fœtus had been preserved. He had reflected much on these and other malformations, but could not explain the cause. It was far better, he thought, to acknowledge this openly—to admit that the cause did not, in the present state of our knowledge, allow of any explanation, than to offer conjectures and groundless hypotheses as explanations. He believed he had seen almost every variety of malformation that the human fœtus was liable to: brain and skull wanting and spinal cord; all the malformations in the extremities ever described, all the malformations of the jaws, genital organs, ureters, urethra, intestinal canal, etc. He believed all these commenced at a very early period—perhaps they commenced with conception, and in the present state of our knowledge admit of no explanation.

Dr. O'Connor said that the paper and the discussion had disappointed the expectations he had formed when he read the heading of the paper. If diseases were transmitted, why should not the configuration of the body? The author had not stated the age of the patients. It seemed to him (Dr. O'Connor) that the deformity was that of chronic rheumatic arthritis, described by Professor Smith and Dr. Adams, of Dublin, well known to occur in certain blood diseases. The observations of the speakers were not on the subject; many things mentioned did not bear on it in any way. He (Dr. O'Connor) thought that, in the instances adduced by the author, the transmission was not one of deformity, but of a tendency to blood disease, which formed it.

Mr. William Adams said that he had seen a large number of cases of deformities, but had not arrived at any general conclusion as to their origin. He had no hesitation in saying that there was frequently a tendency to transmission. In, perhaps, three-fourths of the cases of club-foot, he could trace no hereditary tendency, and yet, perhaps, in a fourth, he could do so. In one family there was a tendency to malformation of the arm. The defect was transmitted by the father's side. The defect became worse and worse, and, at length, the hand was almost close to the shoulder-joint.

Dr. Webster read some

SHORT NOTICES OF A CASE OF THE CÆSAREAN OPERATION, AND OF AN UNUSUAL TRANSPOSITION OF THE THORACIC AND ABDOMINAL VISCERA, SEEN AT THE CLINICAL HOSPITAL OF MOSCOW.

During an excursion in Russia last autumn, chiefly to visit its public institutions, the author learned that the Cæsarean operation had been recently performed in the Clinical Hospital attached to the University of Moscow. In this case the mother did not survive, but her child lived, and, when seen by Dr. Webster in September, was upwards of two months old, and enjoying good health. An interesting preparation was then described, lately obtained while examining the body of a female aged twenty-two years, who died in the same Hospital. The heart lay in the right thoracic region, the liver being in the left hypochondrium, with the stomach and spleen pushed towards the situation commonly occupied by the liver and its lobes. Dr. Webster next alluded to four

analogous transpositions of important organs, both abdominal and thoracic, which now exist in different anatomical collections in London,—namely, at the Museum of the College of Surgeons, Guy's Hospital, University College, and St. Thomas's Hospital. The fact, that examples of this description were limited to the few above specified, the author considered as proving the great rarity of similar abnormal malpositions of viscera in the human frame, at least throughout the immense metropolitan population, ever since Medical Schools were established in the capital; for had such specimens been often found on dissection, they would have been preserved. Dr. Webster referred to several Medical writers, both British and Continental, who narrate instances of the same kind as that he had lately met with at Moscow. Among the foreign authors on this subject, Méry, Bartholin, Riolan, and Hoffman specially deserved notice. Dr. Lampron and Dr. Baillie were also named, both these English Physicians having published cases in the *Philosophical Transactions*. Reference was likewise made to a paper by Dr. Bryan in the *Transactions* of the Dublin College of Physicians for 1824, which details an instance identical in its chief features to those previously quoted. Reviewing the different cases mentioned, the author, in conclusion, remarked that it might be fairly assumed, not only that persons so constituted might live for years, but that malpositions of viscera resembling those described in his communication would seldom affect materially the healthy performance of their respective natural functions.

Mr. Partridge said that a specimen of a similar transposition of the viscera was in King's College museum.

Mr. Spencer Wells hoped that the attention of the Society would not be diverted by Dr. Webster's second communication from the interesting case of Cæsarian Section, recorded in the first. This successful case—another which Professor Pirrie, of Aberdeen, had recently seen in the great Hospital at Naples—and a third case, which had been so successful in London, in the practice of a gentleman then present (Dr. Edmunds), would, it was to be hoped, draw forth some practical observations as to the details of the operation. Probably some considerable share of the mortality might depend upon the manner in which each step of the operation was performed, and upon the after treatment; and it was quite probable that, by attention to circumstances which might appear trivial at first sight, the operation might become much more successful than it had been.

Dr. Lee said that, during the two years he was physician to Prince Woronzow, he had visited St. Petersburg and Moscow and all the western and southern provinces of the Russian empire, and that he had not heard of the Cæsarean operation having ever been performed in Russia. He had seen inverted uterus, puerperal convulsions, puerperal peritonitis, and he had tapped a lady with an ovarian cyst, who lived upwards of twenty years after without ever being tapped again. It was stated by Dr. Denman, on the authority of Bauher, that Eliza Lespacher had the operation performed upon her by her husband, who was a gelder of cattle at Siegenhausen, in the beginning of the sixteenth century. She had several children born after in the natural way. Guillemeau performed the Cæsarean section twice in the presence of Ambrose Paré and some of the most distinguished surgeons of Paris. Both the women died. Guillemeau stated that in 1609 he saw the operation performed on three other women in the most dextrous manner, and they all died. In consequence of these disastrous results the operation was abandoned by Ambrose Paré, Guillemeau, and all the regular surgeons of Paris. Mauriceau affirmed that there were very few, if any, cases of difficult labour in which an experienced accoucheur would fail to extract the child, dead or alive, without the Cæsarean section. Mauriceau thought the Cæsarean operation could not be performed on the living body without a too great excess of inhumanity, cruelty, and barbarity—"Que par un très grand excès d'inhumanité, de cruauté, et de barbarie." Soon after, or before, the death of Mauriceau, the Doctors of the Sorbonne decided that the Cæsarean operation ought to be performed whenever it was known that the child was living, and it was impossible, by other means, to extract it alive; "for they assert that it is a deadly sin (péché mortel) to perforate the head of a living child within the uterus." This doctrine had prevailed, he believed, ever since, in all the Catholic countries of Europe—France, Italy, Spain, and Germany. The recent operation in Russia had probably been performed by German or French Surgeons. It was impossible to tell how often this horrible operation had been performed, as the statistical statements were unworthy of the slightest credit. It was notorious that many fatal cases had occurred, of which no report had ever been published. He believed the operation had never, in any instance, been required; that the 400 or 500 women who had undergone the operation had been deprived of life without any reason. He had seen as many cases of difficult labour from the highest degree of distortion as any individual then alive, and he had never seen a woman die undelivered from this cause. Dr. Denman had never seen the operation performed, and few of the eminent accoucheurs who followed him ever performed it or saw it performed. J. Hunter had performed it once, but he knew nothing of midwifery. Dr. Collen had informed Dr. Lee that he had never required to perform the operation, and had never seen a woman with distortion die undelivered. In a note which he (Dr. Lee) had received two days ago from Dr. M'Clintock, that gentleman stated that he had never performed the operation. It had recently been proposed to abolish the operation of craniotomy, and substitute in its place the operation of turning and the long forceps. He (Dr. Lee) would now propose that the Cæsarean operation should be banished altogether from the practice of midwifery, and that the induction of premature labour should be substituted in its place.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 5, 1862.

Dr. Tyler Smith, President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Mr. S. J. Burke, New South Wales; Mr. L. T. Cumberbatch, Cadogan-place; Mr. T. Fender, Alnwick; Mr. Wm. Hall, Leeds; Dr. Charles Harris, Sussex; Dr. T. S. Hewitt, Windsor; Mr. W. A. Hubert, Bedfordshire; Mr. F. F. Jay, Norwich; Mr. George Lowe, Staffordshire; Mr. G. W. Mackenzie, Norfolk; Dr. Mackinlay, Paisley; Mr. R. B. Marriott, Norfolk; Mr. T. R. B. Parker, Dorset; Dr. Richards, Brighton; Mr. S. Richards, Bedford-square; Dr. Sutherland, Croydon; Dr. Thane, Hart-street; Dr. Tracy, Melbourne, Victoria; and Mr. C. G. Wheelhouse, Leeds.

The names of ten candidates for admission into the Society were read. These gentlemen will be balloted for at the meeting on December 3.

The Honorary Secretaries announced the donation of about 280 works on the Medical Sciences from Dr. Charles Clay, of Manchester. A special vote of thanks to Dr. Clay was proposed by Mr. Marshall, seconded by Dr. Drage, and carried unanimously.

The following papers were then read:—"A Case of Sudden and Unconscious Delivery," by John Shortt, M.D., Zillah Surgeon, Chingleput. "A Case of Obstructed Labour from the Presence of the Hymen," by S. Palmer, M.D. "A Case of Acephalo-Cyclopean Monstrosity," by Robert Hardey, Esq., M.R.C.S., of Hull.

A paper, by Dr. Archibald Hall, was read on

A CASE OF PUERPERAL CONVULSIONS COMPLICATED WITH MANIA—APPARENT RECOVERY—SUDDEN DEATH.

In this case, the patient, in labour with her first child, had several severe attacks of convulsions, when the os uteri was very rigid, and scarcely dilated to the size of a shilling. She was freely bled twice, forty ounces of blood being taken away, though more was lost afterwards, owing to the patient's restlessness displacing the bandage. A blister was also applied to the nape of the neck, ice was used to the head after the hair had been shaved off, and small doses of calomel were given. Chloroform was also exhibited, and, as soon as the parts were sufficiently dilated, delivery of a dead child was effected with the forceps. After the labour there were only one or two attacks of convulsions; but the maniacal excitement continued for some time. The calomel was persevered with, and morphia, chloric ether, etc., administered. At the end of a week the patient appeared to be doing well, when almost suddenly she sank into a state of collapse, and died.

A discussion followed the reading of this paper, in which Dr. Braxton Hicks, Dr. Tanner, and Dr. Graily Hewitt took part.

Dr. Graily Hewitt exhibited, for Mr. Francis Taylor, of Romsey,

A NIPPLE-SHIELD.

Mr. Taylor had forwarded the instrument in question for in-

spection by the Fellows of the Society, having seen, in the report of a recent meeting of the Society, that a nipple-shield had been shown by another gentleman, with which his (Mr. Taylor's) instrument was, he believed, identical. Mr. Taylor's invention was of glass, with a caoutchouc nipple; and had, it was stated, been long sold by Messrs. Barclay and Sons.

A paper, by Dr. J. Braxton Hicks, was read, on

FIVE CASES ON VAGINAL CLOSURE.

In this paper an account was given of five cases of vaginal closure, in two of which there was complete atresia of the vagina, while in the remaining three almost complete closure was present, the result of former labours. In one of these there was almost complete retention of menses; in the other two labour was actually present. *Case* 1.—There was congenital absence of vagina; external generative organs natural; recto-urethral membrane very thin; uterus distended to the size of the fist, and felt above the pubes. Excessive paih was experienced at each monthly period. As the recto-urethral septum was so thin that little probability existed of a successful operation for an artificial vagina, it was decided to puncture the uterus per rectum, which was satisfactorily accomplished (April 21, 1861) by a curved trocar and canula. About four ounces of dark treacly fluid escaped, with immediate relief. The canula was withdrawn. About the same quantity escaped next day. No bad symptom followed. For some time she had no pain, nor any menstrual evacuation; but about seven months afterwards, the pain having returned, it was found necessary to repeat the operation, which was done in the same manner, complete relief following. From that time she has continued to evacuate the menses per rectum without pain. *Case* 2.—A married woman with complete atresia of the vagina, the uterus and probably the Fallopian tube being distended. As the recto-urethral membrane was thick, an artificial vagina was formed close up to the uterus. When the completion of the operation was intended, the patient refused, and she left the Hospital without the final step having been effected. She, however, did not suffer any bad symptom. *Case* 3.—In this case, the vagina at its middle third was so nearly occluded that it was only by great pain and effort that the menses appeared; the aperture was found at the menstrual period, and then only by a very small stream of menstrual fluid. A slight opening was made at this point by the pointed bistoury, and a catheter passed through the constriction, which allowed the flow of the pent-up secretion. A few days after, the opening was enlarged so as to admit the middle finger, by dividing the cicatrices in many directions. A week after this, the advantage gained was still further increased, and the passage readily admitted two fingers together. The vagina was kept open by large bougies, and continued of the same size when last seen. Intercourse, almost impossible before, was attended with only a little inconvenience, and she had become pregnant and miscarried at the last accounts received. *Case* 4.—This was one of complete occlusion of the middle third of the vagina from former labour; the upper third being converted into a thick-walled sac containing four ounces of puriform fluid, and the lower third funnel-shaped. Pregnancy was advanced to the seventh month; labour pains had set in, with tenderness in the lower portion of the abdomen. Only a director could be passed part of the way through the constriction, which was enlarged by a guarded bistoury, so as to admit the finger, which was used as a guide. The cicatrices were divided in numerous places by lightly drawing the point of the bistoury over them, till the thick membrane of the upper part was reached. A fine aperture was found, which was enlarged also, and the cavity entered by the finger. On withdrawing the finger the pus flowed away, and afterwards the membranes descended; after a time these were ruptured, the head being found to present. The vagina was still further dilated so as readily to admit two fingers, and the case left for Nature to complete. Pains fully set in in two days, and terminated successfully without further need of interference. The patient made a good recovery, and the vagina kept open afterwards. *Case* 5.—There was occlusion of the middle third of the vagina (admitting only the passage of a catheter) by old cicatrices from former labour. The patient had been in hard labour for many hours, and was becoming exhausted; the head was impacted at the brim. The cicatrices were divided by a bistoury, in numerous directions, till at last three fingers were admitted. The death of the child having been ascertained, the head was perforated, and, after some trouble, was drawn through the brim. The head passed easily the former constriction of the vagina. Hæmorrhage ensued a little time after the birth; but the hand had no difficulty in passing through the vagina in order to control it. She was about in six days, and has since had a dead child without trouble. In remarking upon these cases, the author said it was a point upon which information was required, to ascertain the period during which the canula should remain in the uterus in puncturing by the rectum. In regard to the mode of incising the cicatrices, he preferred the method he had adopted—namely, making numerous rather than a few deep divisions, inasmuch as in the latter case the necessary expansion must come from the healthy tissues at their base, whereby a rent into the surrounding organs is more likely than when numerous incisions are employed, not quite extending through the cicatrix.

Dr. Graily Hewitt wished to call the attention of the Society to an important point in the treatment of that class of cases in which there is retention of menstrual fluid within the uterus, whether from imperforate hymen, or congenital closure of the os uteri. It was the fact, that in a certain proportion of the cases in which the fluid had been evacuated from the uterus by puncture or otherwise, death had occurred a short time subsequently from escape of the menstrual fluid into the peritoneal cavity, causing severe and rapidly-fatal peritonitis. It was a remarkable fact that, whereas such escape of menstrual fluid into the peritoneal cavity hardly ever occurred when these cases were left alone, yet that this should happen after operation, and when an outlet by the natural way had been prepared; but the fact was undoubted. The probable explanation of this curious circumstance was, he believed, that uterine contractions are set up, consequent on the artificial opening into the uterus; that these contractions continue after the first evacuation of the fluid, and when, in all probability, the artificial opening had become occluded or insufficient; and that these contractions have the effect of expelling the remainder of the retained blood through the Fallopian tubes, and so into the peritoneum. In laying down rules, therefore, for the management of these cases, this source of danger should be anticipated, and, if possible, guarded against. Dr. Hicks had very properly guarded against the admission of air into the uterus during the operation by the procedures recommended, but the danger now alluded to was even greater. The best plan to be followed in order to avert this danger would, he believed, be to make a very small aperture in the obstructing tissue, whatever that might be, and to allow the retained menstrual fluid to escape very slowly and gradually, almost *guttatim;* in this way the excitation of strong and forcible contractions of the uterus would, he considered, be avoided.

After some further observations by Dr. Palfrey, Dr. Druitt, Dr. Tyler Smith, and Mr. Walter Chapman, Dr. Hicks replied, and the meeting adjourned.

WESTERN MEDICAL AND SURGICAL SOCIETY.

Friday, November 7.

Mr. Leggatt, Vice-President, in the Chair.

Dr. Baines communicated the details of a case of

PUERPERAL PYÆMIA.

J. B., aged 34, has had eight children; of weak, leucophlegmatic temperament; confined with her eighth child, August 19, 1860; labour lingering from deficient pains. All the symptoms went on well after the labour, the lochia being natural in quantity and quality. On the 23rd a very free eruption of *lichen simplex* occurred without any constitutional disturbance. In the course of four or five days slight desquamation of the cuticle formed. On September 1 and 2, the hands and body became covered with miliary eruption, which, in the course of a day or two, dried up, except on the tips of the fingers and toes, and on the groins, where the vesicles formed large bullæ, several running together. These bullæ at first were filled with serum, becoming sero-purulent. All through she had generous diet, porter, bark, and ammonia. There was no fever, no pain, but great debility and depression. The lochia, however, for a day or two, became slightly offensive. On the morning of September 8 she got up as usual, and seemed well, and was suddenly seized with a

severe rigor, followed by general and complete collapse. I saw her during the rigor, and found her with a cold surface, anxious face, collapsed features, hurried respiration, and depressed circulation. Stimulants and warmth were freely administered, and, towards evening, there was slight reaction, the pulse becoming frequent, ranging above 130, and very soft, and the body became covered with a profuse perspiration. Vomiting of bilious matter supervened, and intense pain, with but little tenderness, was complained of in the abdomen. The tenderness ran in the course of the descending colon, down into the pelvis, though the uterine region, properly so-called, was free. The tenderness was not at all commensurate with the pain. Bowels were regular, the tongue clean and moist, and the respiration completely thoracic and hurried. Ordered opium, brandy, beef tea, fomentations, etc. On the 9th (following day) all the symptoms were increased, and she gradually sank on the morning of the 10th, about thirty-six hours after the first occurrence of the fatal symptoms. No post-mortem took place; the body rapidly decomposed. Upon carefully questioning, it appeared that there had been at an early period slight pains and swelling in the left leg; but it soon passed off, without any particular notice being attached to it. Of the nature of the disease there could be no doubt, and considerable interest was attached to the fact of the previous appearance of the miliary eruption with the copious formation of sero-purulent matter. The blood evidently was in a diseased condition, and nature had endeavoured to throw off the morbid element through the skin; but, failing this, the blood became more and more poisoned, until its pyæmic condition was manifested by the occurrence of the fatal symptoms. It must be remembered that the patient had complained, at an early period, of slight pain and swelling of the left leg, which probably was the first indication of mischief in the veins. From the position and direction of the pain, it is probable that the severe and fatal symptoms did not occur until the inflammation had extended to the left iliac vein; when it did so, death rapidly occurred. In another case of the same kind, the Author stated that, about the third day after delivery, the patient complained of pain in the calf of the right leg, which soon passed off, and the patient began to get about again, when, at the expiration of about twelve or fourteen days, without any warning, she became affected with all the severer symptoms of pyæmia. Stimulants, opium, etc., were freely (as in the other case) administered, and with success. Hence, in all puerperal cases, the necessity there is for attaching importance to all pains and swelling in the course of veins of the extremities, since, though slight at first, they may be the precursors of the more fatal symptoms, which we can scarcely hope to combat.

Mr. J. Lane then exhibited

AN INSTRUMENT FOR THE TRANSFUSION OF BLOOD

which, by its simplicity, would much facilitate that operation.

Dr. Anstie afterwards related

A CASE OF POISONING BY THE INJECTION OF MORPHIA INTO THE RECTUM.

Three grains were injected by error, when the usual symptoms of poisoning by opium came on. The Author, who saw the case twelve hours after the commencement of the symptoms, administered a scruple of caffeine, with the effect of temporarily arousing the patient from the state of profound insensibility which soon afterwards terminated in death. Dr. Anstie thought we had in caffeine a great addition to the usual remedies for poisoning by opium.

MEDICAL NEWS.

University of London.—The following are lists of Candidates who passed the respective Examinations indicated:—

Second M.B. Examination.—1862.

Pass Examination.

First Division.—John Bayldon (B. Sc.), Surgeons' Hall, Edinburgh; Thomas Griffiths, University College; Richard Whitfield Hewlett, King's College; James Usher Huxley, King's College; Horace Jeaffreson, St. Bartholomew's Hospital; Thomas Morton, King's College; Edward Parson, King's College; William Powell, London Hospital; James Shepherd, University College; Thomas Starkey Smith, University College; Alexander John Balmanno Squire, University College.

Second Division.—William Dale, Leeds School of Medicine and Middlesex Hospital; Richard Dawson, University College; Henry Colley March, St. Thomas's Hospital; Frederic Marsdin, King's College; Frederick Stockwell, St. George's and Bath United; Edward Thomas Tibbits, University College.

Examination for Honours.

Physiology and Comparative Anatomy.—James Usher Huxley (University Scholarship and Gold Medal), King's College; Alexander John Balmanno Squire (Gold Medal), University College; Thomas Morton, King's College.

Surgery.—Thomas Starkey Smith (University Scholarship and Gold Medal), University College; Richard Whitfield Hewlett (Gold Medal), King's College; Thomas Griffiths, University College, and James Usher Huxley, King's College,—equal; Thomas Morton, King's College, and William Powell, London Hospital,—equal.

Medicine.—Thomas Starkey Smith (Scholarship and Gold Medal), University College; James Usher Huxley (Gold Medal), King's College; Thomas Griffiths, University College; Alexander John Balmanno Squire, University College; Edward Parson, King's College.

Midwifery.—Edward Parson (Gold Medal), King's College; James Usher Huxley, King's College, Thomas Starkey Smith, University College, and Alexander John Balmanno Squire, University College,—equal; Thomas Griffiths, University College; Thomas Morton, King's College.

M.D. Examination.

Charles Hilton Fagge, Guy's Hospital; John Henry Galton, Guy's Hospital; Morell Mackenzie, London Hospital; Walter Basnett Ramsbotham, University College; Joseph Rutter, University College; Robert Bowie Walcott, St. Thomas's Hospital.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, November 27, 1862:—

Charles Owen Aspray, 8, Newton-road, W.; Charles John Stewart, 5, Montague-place, Kentish-town; Philip Alfred Cornish, Modbury, Devon; Richard Thompson Cosar, Hadlow, Tonbridge, Kent; Henry Charles Bastian, 14, Burton-crescent; Daniel Biddle, St. Thomas's Hospital; Collins Curtis, Great Northern Hospital.

The following gentleman also on the same day passed his First Examination:—

William Henry Power, St. Bartholomew's Hospital.

APPOINTMENTS.

Alcock.—Thomas Alcock, M.D. Univ. St. And., Ex. L.R.C.P. Lond. M.R.C.S. Eng., L.S.A. Lond., has been elected Curator of the Museum of the Manchester Natural History Society.

Alison.—Dr. Scott Alison has been elected one of the Physicians to the Scottish Hospital, *vice* Dr. Darling, deceased.

Black.—Dr. Donald C. Black has been appointed Medical Officer for the Parishes of Bracadale and Duirnish, Inverness-shire.

Brown.—Alfred Brown, M.R.C.S. Eng., L.S.A. Lond., has been appointed Consulting Medical Officer to the Dispensary, Wandsworth, Surrey.

Brown.—John Brown, M.D. Univ. Edin., F.R.C.P. Edin., has been re-appointed Assessor to the Lord Rector of the University of Edinburgh.

Buckell.—R. K. Buckell, M.R.C.S. Eng., Assistant-Surgeon Indian Service, has been promoted to be Surgeon, *vice* Batson, retired.

Constable.—Joseph James Constable, M.D. Univ. St. And., L.R.C.S. Irel., has been elected Medical Officer to the parishes of Filleigh, East and West Buckland, and Charles, in the South Molton Union.

Cunyngham.—Robert James Blair Cunyngham, M.D. Univ. Edin., L.R.C.S. Edin., has been appointed one of the Presidents of the Royal Medical Society, Edinburgh, for the ensuing Session, being the 125th of its existence.

Deas.—Mr. P. Maury Deas has been appointed one of the Presidents of the Royal Medical Society, Edinburgh.

Drozier.—William Henry Drozier, M.D. Cantab., has been appointed Deputy-Professor of Anatomy, University of Cambridge.

Finlay.—Mr. Robert B. Finlay has been appointed one of the Presidents of the Royal Medical Society, Edinburgh.

Flexman.—James Flexman, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer to the Workhouse of the South Molton Union.

Foy.—James Augustus Foy, M.R.C.S. Eng., Assistant-Surgeon Indian Service, has been posted to the 9th Regiment Native Infantry.

Gamgee.—Arthur Gamgee, M.D. Univ. Edin., has been appointed Presiden of the Royal Medical Society, Edinburgh.

Orr.—Surgeon Major J. H. Orr, C.B., M.D., has been appointed to act as Garrison Surgeon of Bangalore during the employment of Dr. Paterson on other duty.

Paget.—George Edward Paget, M.D. Cantab., F.R.C.P. Lond., has been appointed Assessor to the Regius Professor of Medicine, Cambridge, for the ensuing year.

Quicke.—John Mugford Quicke, L.R.C.P. Edin., M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator to the Union Workhouse, and the St. Clement District, of the Truro Union, Cornwall, *vice* Matthew George Painter, M.R.C.S. Eng., L.S.A. Lond., resigned.

Shepard.—Henry Charles Shepard, M.R.C.S. Eng., has been re-elected Medical Officer and Public Vaccinator for the Raglan District of the Monmouth Union, for twelve months.

Smith.—Deputy-Inspector-General of Hospitals C. J. Smith, L.R.C.P. Lond. (Indian service), has been posted to Pegu, but will continue to act in the Northern Division until relieved, or until further orders.

Ussher.—Henry Ussher, B.A., M.B. Trin. Coll. Dub., L.R.C.S. Edin., has been appointed Medical Officer to the Wandsworth Provident Dispensary.

Walsh.—R. P. Walsh, L.R.C.S.I., and L.K.Q.C.P., has been elected to the Surgeoncy of the Fermanagh County Infirmary, Enniskillen, *vice* W. C. Ovenden, M.D., J.P., deceased.

Wilson.—John Wilson, M.D. Univ. Glasg., L.R.C.S. Edin., L.M. Glasg., has been appointed Medical Officer of the Drumshambo Dispensary District of the Carrick-on-Shannon Union, Country Leitrim, *vice* Dr. Keon, deceased.

DEATHS.

APPLETON.—November 27, Henry Appleton, of Torquay, Devon, M.R.C.S. Eng, L.S.A. Lond., aged 52.

BARBIERI.—November 19, at Inverkeithing, Dr. Matthew Barbieri, late of Limekilns, Fife.

BATTY.—Recently, at Kingston, Jamaica, Robert Batty, formerly of Liverpool, M.R.C.S. Eng., L.S.A. Lond., aged 34.

BELL.—November 30, after only two days' illness, Joseph Bell, of No. 162, St. Vincent, Glasgow, M.D. Univ. St. And., F.F.P.S. Glasg., Professor of Botany at Anderson's University, and Physician and Lecturer at the Royal Infirmary, Glasgow.

CLARKE.—Recently, John Clarke, M.D., Assistant-Surgeon 13th Light Infantry.

CROSIER.—November 12, on board the Peninsular and Oriental Co.'s steamer *Simla*, on the passage from Calcutta to England, William Crosier, of the Bengal Army, F.R.C.S., Professor of Anatomy and Physiology at the Medical College, Calcutta.

EATON.—October 5, at Galle, of disease of the heart, Mr. J. E. Eaton, Apothecary, aged 53.

HALL.—Recently, at Bridgnorth, Salop, Joseph Hall, aged 84.

JAQUES.—November 22, William Robson Jaques, of Droitwich, Worcestershire, M.R.C.S. Eng., L.S.A. Lond., Medical Officer to the Droitwich District and the Union Workhouse of the Droitwich Union, aged 59.

LITCHFIELD.—November 28, at the Woodlands, Isleworth, Vincent Litchfield, late of Addison-road, Kensington, L.R.C S. Edin., L.S.A. Lond., formerly Assistant-Surgeon to the Kneller Hall Government Training College, aged 35.

LODWICK.—October 24, at Mhow, Frederick Lodwick, Surgeon-Major 4th Rifles, Indian Service.

MAGRATH.—November 25, at Upper Rathmines, Dublin, William Magrath, Resident Apothecary and Secretary to Jervis-street Hospital, Dublin, for twenty-seven years.

MEYLER.—November 15, at Ashmeade House, Gloucester, William Morgan Meyler, J.P., and M.R.C.S. Eng., aged 74.

PAGE.—Recently, William Page, L.R.C.S. Edin., Staff Assistant-Surgeon, Army.

PUGH.—November 22, D. R. Pugh, of Frondirion, Clynnog, M.R.C.S., aged 41.

SAMSON.—November 2, at Williamsburgh, New York, Charles Mase Samson, M.D., eldest son of Charles Samson, Esq., of Brighton.

LONDON GAZETTE.

November 28.

2ND MIDDLESEX ARTILLERY VOLUNTEER CORPS.—John Wickham Barnes to be Assistant-Surgeon, *vice* Llewellyn, resigned; dated November 15, 1862.

27TH LANCASHIRE RIFLE VOLUNTEER CORPS.—Frederic Blakesley Mallett, M.D., to be Assistant-Surgeon; dated November 17, 1862.

December 2.

7TH HUSSARS.—Staff Assistant-Surgeon Reginald Croft Lever, M.D., to be Assistant-Surgeon, *vice* George Moulas Slaughter, appointed to the Staff; dated December 2, 1862.

12TH LANCERS.—Staff Assistant-Surgeon Charles John White to be Assistant-Surgeon, *vice* Edward Mason Wrench, who resigns; dated December 2, 1862.

1ST REGIMENT OF FOOT.—Staff Assistant-Surgeon Joseph Augustin Fitzpatrick to be Assistant-Surgeon, *vice* William Chalmers, appointed to the Staff; dated December 2, 1862.

28TH FOOT.—Surgeon Benjamin William Marlow, M.D., having completed twenty years' full-pay service, to be Surgeon-Major, under the provisions of the Royal Warrant of October 1, 1858; dated October 25, 1862.

MEDICAL DEPARTMENT.—Assistant-Surgeon George Moulas Slaughter, from the 7th Hussars, to be Staff Assistant-Surgeon, *vice* John Storey, who resigns; dated December 2, 1862.

Assistant-Surgeon William Chalmers, from 1st Foot, to be Staff Assistant-Surgeon, *vice* Joseph A. Fitzpatrick, appointed to 1st Foot; dated December 2, 1862.

The appointment of Staff Assistant-Surgeon Robert William Hooper, M.D., has been ante-dated to September 2, 1862.

ROYAL KETTERING TROOP OF YEOMANRY CAVALRY.—James Logan, Esq., M.D., to be Honorary Surgeon; dated November 26, 1862.

38TH WEST RIDING OF YORKSHIRE RIFLE VOLUNTEERS.—Charles Frederick Empson, Gent., to be Honorary Assistant-Surgeon; dated November 26, 1862.

Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon Robert Rayner in the 30th West Riding of Yorkshire Rifle Voluunteers.

MR. WILLIAM HERAPATH, F.C.S., Professor of Chemistry and Toxicology in the Bristol Medical School, has written to *The Daily Post*, drawing attention to the fact that he is not the Dr. W. Bird Herapath who conducted the analysis in the case of suspected poisoning at Ludwell.

THE ROYAL SCHOOL OF MINES.—The Report of the Twelfth Session of the Royal School of Mines contains an outline of the course of instruction on Chemistry, Physics, Natural History, Mineralogy, Geology, Mining, Metallurgy, etc., as given in that institution, together with the examination papers for the session 1861-2; beside the various encouragements to study in the form of Exhibitions, Royal Scholarships, etc. A free admission is accorded annually to the Cheltenham College and the Mining Schools of Bristol and Truro.

CHLORODYNE.—We are given to understand that the chlorodyne trial in the Queen's Bench recently referred to, has been settled "out of court," and it will be now for the Profession to prescribe an admittedly secret remedy, or one the formula of which must soon appear in recognised books.—*From a Correspondent.*

THE CONVICT GARDNER.—The sentence of death passed upon the sweep, Samuel Gardner, for the murder of his wife, has been commuted into penal servitude for life. This is Sir George Grey's method of escaping from a difficulty—cutting instead of untying the knot. It is needless to say that such a conclusion neither answers the requirements of guilt nor innocence.

M. DU CHAILLU AND HIS ASSAILANTS.—M. Du Chaillu has published what appears a triumphant answer to Mr. Winwood Reade and his other critics in the *Times* of the 1st. In his letter he makes the following proposal:—"I will prove how I got my specimens, by the simple expedient of hunting and shooting others as I hunted and shot these, under certain conditions, which involve a fair offer. If Dr. Gray and his friends will raise among them, and deposit in a bank, £2000—I will deposit £1000 on my side—I will start for the gorilla country, and if I do not kill five or six gorillas in the course of two years (I allow so long for fevers and other contingencies), and bring their skins and skeletons home, preserved with a preparation which those gentlemen shall give me (provided it is ascertained to be suitable for the purpose), I will forfeit to them my £1000. On the other hand, I shall claim their £2000 to repay my expenses if I succeed; and I shall be very happy of the company of the bravest of them in making the venture."

THE PATHOLOGICAL SOCIETY OF DUBLIN.—The first meeting of the twenty-fifth annual session of the above Society was held in the Anatomical Theatre of Trinity College, on Saturday, the 29th ult.; Dr. Banks, President, in the chair. Interesting communications were made by Drs. Corrigan, M'Dowel, and Edward Hamilton; after which, the Society proceeded to the election of Officers and Council for the year ending November, 1863, when the following were chosen: — *President* — John Hamilton. *Vice-Presidents*— Joseph O'Ferrall, Samuel Gordon, James S. Hughes, Alfred H. M'Clintock, Robert Mayne, Jolliffe Tufnell. *Council*— Robert Adams, John Banks, Awley Banon, Thomas Beatty, Dominick J. Corrigan, Fleetwood Churchill, Christopher Fleming, Alfred Hudson, Edward Hutton, Robert Law, Benjamin G. M'Dowel, Josiah Smyly. *Honorary Secretary*— William Stokes. *Secretary and Treasurer*—Robert W. Smith. *Secretary for Foreign Correspondence*—Robert D. Lyons. The subject selected for the Society's gold medal, to be awarded at the end of the session to the best essay thereupon, is the "Diagnosis and Pathology of the Diseases of the Medulla Oblongata, and of the Spinal Cord and its Membranes."

DUBLIN OBSTETRICAL SOCIETY.—The constitution of this Society, now entering upon its twenty-fifth annual session, has undergone a material change which is likely to be productive of the best results, and to give to the Society increased vigour and activity. The movement which led to this reorganisation, was initiated by Dr. McClintock in the opening address of last session. The first open meeting under the new *regimé* was held at the Rotunda, on Saturday evening, the 29th ult., when Dr. Beatty, the newly elected President, delivered the inaugural address. Having thanked his Professional brethren for their kindness in placing him in the chair, Dr. Beatty proceeded to describe the changes just alluded to. The Society was now to be a representative Society, having a President, two Vice-Presidents, a Treasurer, a Secretary, and a Committee of five members. He next alluded to the flourishing condition of similar societies in England and Scotland, and expressed a hope that a like prospect awaited this society, which was established at the suggestion of a distinguished member of their branch of the Medical Profession—Dr. Evory Kennedy. He dwelt on the loss the Profession had sustained during the last few years, especially referring to Dr. Montgomery, in whose death their branch of the Profession had sustained a severe loss. The President then proceeded to detail the many improvements which had taken place in the Obstetric art, and to give an account of the objects and usefulness of the Society. Dr. Evory Kennedy was moved to the second chair; and on the motion of Dr. Corrigan, seconded by Dr. Churchill, a vote of thanks was passed to the President for his able address.

Previously to the adjournment of the meeting, which was very numerously attended, a large number of new members were admitted.

ETHNOLOGICAL SOCIETY.—At the fortnightly meeting of this Society, on Tuesday last, John Crawfurd, Esq., F.R.S., in the chair, a paper was read by Thomas Wright, Esq., on the "Human Remains from Uriconium." The skulls thence obtained were of two descriptions—one exhibiting the normal cranial conformation; one presenting a remarkable, distorted form. A discussion followed, joined in by Messrs. Drachitis, Burke, Travers, Hodgkin, Blake, Somerville, the President, and others. Mr. Crawfurd read a paper on "Language as a Test of the Races of Man." The author affirmed that language, although yielding valuable evidence of the history and migrations of man, affords no sure test of the race he belongs to. The majority of the people of the British Isles 2000 years ago spoke their own native tongues. Now, the language spoken is one derived from Germany, on which has been engrafted a considerable portion of another that had its origin in Italy; while of the native tongues, two examples only remain, and these, without doubt, are doomed in a few generations to extinction as living languages. The like is the case in France; and similarly Egypt, Northern India, the New World, and other regions, offer examples. The class of monosyllabic languages affords a very thorough refutation of the theory which would make language a test of race. We have, at least, two very distinct races of man speaking these languages which so much resemble each other in sound and structure, namely, the Burmese and the Chinese, the first differing more widely from the last than either of them do from the Japanese, who speak a polysyllabic language. As, with one exception, the tribes in America are of one race, language and race ought there to be coincident, yet their languages differ wholly in their words; and there is a language spoken by the red men, in the very heart of the continent, of totally different structure from all the rest. Some have suggested that the differences in phonetic character and grammatical formation which prevail may have sprung from original and innate differences in the physical and mental organisation of races. Such a theory is refuted by the fact, that the children of races the most opposite, when taught from infancy, will acquire a mastery over any foreign language, be it ever so difficult of pronunciation or complex in structure. The discussion was carried on by Messrs. Spottiswoode, Burke, Ameuney, Hunt, Hodgkin, and others. A paper on the "Aborigines of Australia," by Mr. E. Preiss, was postponed until the next meeting, which will take place on the 16th instant.

THE LATE TRIAL FOR MURDER AT MAIDSTONE.—A case, interesting in a Medico-legal point of view, has lately been tried at Maidstone. A farmer, named Major Murton, was indicted for feloniously killing his wife. It was proved that he had assailed his wife with brutal violence; striking her with a horsewhip, dashing her down on a brick floor, and then beating her about the thighs with a pair of tongs. From the time of the assault she languished and drooped, and died on the tenth day. The evidence showed that deceased had been for some time in bad health—that her liver and kidneys were diseased, and that there was some effusion into the cavity of the abdomen. It was also proved that she was addicted to the use of gin. She received no Medical attendance for some days after the accident. The Medical men examined were, however, clearly of opinion that the treatment she had received had accelerated her death. In summing up, the judge (Justice Byles) said:—"The deceased was, no doubt, a diseased person, but the Medical men said she might have lived an indefinite time, and that the shock she had received would tend to cause that state of body from which she had died—that is, not the original disease, but the state of disease which was the proximate cause of death. There was a strong piece of evidence in favour of the prisoner, viz., that, looking at the post-mortem appearances alone, the Medical men would have ascribed her death to natural causes alone. But, then, that must be taken along with the evidence, which led to a different conclusion; and both the Medical men stated, that violence to a person in this conditiou would tend to accelerate death. The effect of their united evidence was, that the shock caused her to die sooner than, in all human probability, she would have done. That was in substance the case for the prosecution. And he agreed with the counsel for the prosecution, that violence which hastened death might be murder or manslaughter (according as it was intended to have such a result or not), otherwise a weakly or diseased person could never be murdered. Therefore, it was clearly the law, that if the death was accelerated by violence, so that death happened sooner than it otherwise would have done, that was homicide. The jury returned a verdict of "Guilty." The judge postponed, in order to take time to consider, the sentence.

THE SULTAN'S TOOTHACHE.—The French proverb, "*Qui va à la chasse perd sa place*," has had a somewhat amusing literal fulfilment during the week at Dolmabaktche. On Sunday the Sultan was afflicted by an attack of severe toothache, and a messenger was accordingly despatched to summon M. Roux, his Majesty's dentist, for the treatment of the imperial molar. The fashionable tooth-doctor was not to be found; he had gone *à la chasse;* and though mounted messengers beat him up for nearly three hours round all the "covers," from Baluky to far beyond Meslak, he was nowhere to be found. Chamberlains of high and low degree were at their wits' end, when the happy recollection struck somebody that there was another knight of the forceps—unknown, indeed, to fame, but still professing the art and mystery of tooth-drawing—in a garret opposite Galata-Serai. *A ferim!* Off went a mounted messenger for the man of science, and without time given him to make his neglected ablutions, or borrow an unragged surtout, the bewildered operator was whisked away to the palace. Urgent, however, as was the need of his services, it was found necessary to subject him to a process of toilette before he could be ushered into the suffering presence. This was done as rapidly as half a dozen valets could perform it, and in a few minutes the offending grinder was extracted—fortunately without damage to the imperial jaw. The operation over, his Majesty questioned Mr. Z—— as to his personal belongings, and finding that bad luck and short commons had been his lot for years past, resolved at once to force fortune into better humour on his behalf. Without hypercritical curiosity as to diplomas or other professional vouchers, he at once named him special dentist to himself, with a salary of 1,600 piastres a month, an immediate *cadeau* of 150 liras, and an excellent house at Ortakeui.—*Levant Herald*, November 19.

THE UNITED STATES NAVY DEPARTMENT AND MR. RATLIFFE.—The following is extracted from the *British Press and Jersey Times*:—We have much pleasure in inserting the following official document, as conduct deemed worthy of the thanks of a Government is, doubtless, entitled to the widest publicity. Mr. Ratliffe, Senior Assistant-Surgeon of H.M.S. *Melpomene*, to whose services it more especially refers, must be well known to many of our readers, having, a few years ago, been in Medical charge of H.M.S. *Dasher*, on this station. After hearing so much about the bad feeling towards England existing in the United States, it is somewhat refreshing to see that their Government is ready to acknowledge generous conduct on our part. The *Melpomene*, we are informed, had been despatched to Nassau to "look after" the United States ships of war *R. R. Cuyler* and *Adirondack*, which had been firing into British merchant vessels, seizing stores, etc., etc. The mission of that noble frigate, however, proved widely different from what was expected, both ships requiring her assistance: the one being struck with yellow fever in a fearful degree, whilst the other had run ashore on a reef. In both cases the much-needed aid was most cheerfully given:—

"Legation of United States, London, 30th Sept., 1862.

"My Lord,—I take great pleasure in informing your lordship that I have received instructions from my Government to solicit you to convey to the Captain and Officers of H.M.S. *Melpomene*, and especially to Mr. R. Ratliffe, the Surgeon thereof, who was unremitting in his Professional interest, the thanks of the Navy Department for the kind attention and valuable Medical services paid to the United States steamer *R. R. Cuyler*, on a late occasion, when that vessel touched at Nassau, with yellow fever on board.

"Renewing, etc.

"The Earl Russell. (Signed) C. F. ADAMS."

We have received from a correspondent the following authentic particulars of the dangerous service required of Mr. Ratliffe, and the noble manner in which he did his duty:—"The American ship of war, *R. R. Cuyler*, was lying off Nassau, struck by yellow fever, which was at that time raging in the Bahamas. The captain, first lieutenant, Surgeon, and a large portion of the crew, were down with it. After an un-

successful application on shore, an officer presented himself on board the *Melpomene*, with the object of making known the awfully helpless condition in which the disease had placed his ship, which was no sooner known than the much-needed assistance was freely offered. Mr. Ratliffe was the first to go on board, and some idea may be formed of the state of things, arising out of the Surgeon's inability to attend to his duties, by the fact, that four hours were barely sufficient to restore a degree of order among the sick, prepare medicines, etc. Captain Ewart, in the spirit of a true Briton, went in person to make the generous offcer of his services, and sat some time by the bedside of the dying commander. For several days the Medical attendance extended over three hours morning and evening, in an atmosphere rendered horribly pestilent by intense heat and the multiplicity of cases; and Mr. Ratliffe had not always the satisfaction to find that his directions had been fully carried out during the intervals of his visits. Notwithstanding these disadvantages, however, the result of his exertions was such as to draw upon him the heartfelt thanks of those in whose behalf he laboured, and whose representation of them to their superiors was followed by the above flattering acknowledgment."

CHIMPANZEES.—The specimen of anthropoïd ape from Central Africa, named, by Du Chaillu, koolookamba, from its peculiar voice, is now stuffed and placed in the public gallery of the British Museum, where it is labelled as *Troglodytes Niger var vellerosus*. The conclusions of the traveller, that in the frontal development and the form of the ear the koolookamba approaches nearer to man than the gorilla or the chimpanzee, are amply borne out by an examination of this beautifully stuffed specimen; whilst the black hair, remarkable whiskers, and peculiarly shaped lips and muzzle, lead observers to the inference, that its tegumentary, as well as its osseous, structure, indicates a well-marked and intelligent variety of chimpanzee, inferior, however, to the gorilla, in the descending order, in which man, the gorilla, kooloo-kamba, chimpanzee, and 'nschiego m'bouvé, form a serial scale.

HOW TO BUY FRENCH WINES.—You get in a cask of *bon ordinaire*, already drawn off (*soutiré*) and fined (*collé*), and only requiring three weeks' or a month's repose in your cellar or warehouse to put in bottle. At times of the year when it does not freeze, an aboveground warehouse is the most convenient to perform the operation in; there is at least a certain amount of daylight, and your man is not exposed for hours to the temperature and atmosphere of an underground cellar. You bottle your wine, selecting a bright sunshiny day, with the wind not far from the north or the east. At Channel ports of France, you can get good *ordinary* Bordeaux for from £9 to £12 the cask, which will yield 300 and a few odd bottles. I find what contents *me* for £8. Very good ordinary Burgundy may be had for less, but put it down at £8, and it is not dear. A cask of Burgundy yields only from 270 to 280 bottles; but the contents of wine casks, now differing greatly, according to locality, are shortly to be equalised throughout France. If you deal with Bordeaux or Burgundy direct, a "chemise," or second outer cask, to prevent tricks being played with your wine on the road, costs five francs, and is not money thrown away. Adding to these prices the freight to London, the wharfage, the English duty, and the cost of bottling, and of corks, (the best are the cheapest—many a bottle of good wine is spoilt by a bad cork), the reader may calculate at what a cheap rate he can furnish his table with good light wine, by following the plan of buying it in the wood. English wine-merchants should persuade their customers to buy their ordinary French wine in the cask, and bottle it themselves; they might sell it so at a reasonable price, and yet get a fair profit. Your wine is bottled and stacked; a goodly store. For the first three or four months it is "sick," and out of order. If you can leave it untouched a twelvemonth, so much the better; but in six or eight months you may begin to make use of it. "It is pretty well," you think; "very fair." If Burgundy, the bottle already begins to show a crust, delightful to most English eyes; if pure Bordeaux, it should not betray the slightest crust or deposit after being ten years in bottle. Your wine costs so little that you make free with it, giving country cousins tastes of what they never tasted before, and trying its healing qualities on your poor sick neighbours. When it is half finished, you begin to say—"I like this wine; we must be more sparing with it." When it is drawing near to its close, you shut up the last two dozen in some secure hiding-place, only to be produced on state occasions. This is the history of many and many a cask of *bon ordinaire*. We do not fully value our friends until we are on the point of losing them.—*All the Year Round.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

N. E.—Write to Dr. Drage, of Hatfield.

Dr. Heginbotham's case of "Poisoning by Sulphuric Acid" has been received, and shall have early insertion.

An Old Student.—We regret that our space will not admit anything further on the subject.

Puckett Fund.—Mr. Griffin requests us to state that he has received five guineas from Sprott Boyd, Esq., M.D., Sydney. Dr. Boyd was formerly a resident at Weymouth. The fund now amounts to £1050 15s. 6d. Mr. Griffin has also received ten shillings from W. Woodward, Esq., M.D., Worcester, towards the Poor-law Medical Reform Association.

MEDICAL EDUCATION IN GLASGOW.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It was with great pleasure that I read your correspondent's just article on "Medical Education in Glasgow," as there is no denying it is somewhat underrated in London. Having studied there for two years, I may, perhaps, be allowed to make a few remarks on the subject; and, as I have now attended at one of the London Hospitals for more than a year, I can compare the English School with the Scotch.

The Royal Infirmary is, as your correspondent gave us to understand, an excellently managed institution; but with this great drawback, as regards the School of Medicine, viz., that it is not sufficiently connected with it. My meaning will be rendered more plain when I state that it is managed by a Board of Governors—worthy citizens of Glasgow—all but two or three of whom have nothing whatever to do with the University (if I am rightly informed), and, therefore, cannot properly appreciate the wants of the Medical student.

The visit hour, as your correspondent told us, is at 8.30 a.m., but he did not add, that no student is allowed to remain in, or enter the wards after 10 a.m.

Now, is not this hour rather too early, and is an hour and a-half sufficient time for the student who wishes accurately to observe disease? And I must mention that this hour and a-half is diminished if the student attends clinical lectures (of which there are four a-week, from 9 till 10 a.m.) and operations (on Wednesdays and Saturdays, at 8.30.)

Again, there seemed to be a regulation which prohibited a student from entering a ward by himself, and examining a patient, unless he were a dresser.

The disadvantages of these regulations became very apparent to me, when I entered one of the metropolitan Hospitals, where any student may enter the wards, and examine any patient at any hour of the day.

I have but little doubt that the authorities would make the coveted alterations, were the matter properly represented to them; and it is in the hope that the subject may be opened out for consideration, through the columns of your wide-spead Journal, that I trouble you with the remarks of

Yours, &c.

A FORMER STUDENT OF GLASGOW UNIVERSITY.

EDUCATION IN GLASGOW — IMPERATIVE DEMAND FOR M.D. ON BEHALF OF ALL MEDICAL STUDENTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me a few words on Medical education in Glasgow, and our Medical Schools in general? Readers of the *Medical Times and Gazette* must have seen that Medical education is cheaper at the Andersonian than at its "venerable senior," Glasgow College; but I trust they have not failed to perceive that students of this School (Anderson's University) are left, "after the completion of their studies, to take a Physician or Surgeon's diploma where they list." Yes, "where they list"; but, mark! the degree of Doctor of Medicine with them is now out of the question; while those men who entered at the "venerable senior" do not require to go where "they list," but come forth, at the end of four winter sessions, B.M. and C.M. (if they have a spare £10 note, and do not feel quite up to Surgeons' Hall), in due course to be full-fledged M.D.'s at 24.

A Physician, say these fortunate holders of the wonderful letters "M.D.," is not a Doctor, but a Doctor is a Physician; and a Master in Chirurgery is equivalent to a Membership of the Royal College of Surgeons of England. On this question about M.C., they are supported by the heads of the Army and Navy Medical Departments, who accept of this qualification as a Surgeon's diploma.

Now, let us look at the position of the Andersonian student, who is generally a worker, but commonly with not over plenty of cash. He may take his license, as your correspondent says, "where he list," that is, at London, Edinburgh, or Glasgow, but then he is only a Surgeon; and, if he should take the license of the College of Physicians also, he is not a Doctor after all. Now, how is this? Because high authorities tell him a Physician is not a Doctor, and, having been educated at a Medical School, and not a University, he cannot graduate in Medicine!

The absurdity and unfairness of all this must be apparent. It is not contended that Medicine is better taught in our Universities than in the Schools of London, Edinburgh, or Glasgow; for, if it was so, there would be more M.D.'s and fewer Surgeons seeking that title! But why should there not be a University similar, though, perhaps, not so exalted in its requirements, to the University of London, where the students of our various Medical Schools could honourably go up and take their degree? Such an institution is imperatively demanded. The late rushing to St. Andrews proves how the want is felt; and I humbly submit that the Profession owes it to itself to settle this vexed question; and, more especially, private teachers ought to move in this matter; for, assuredly, young men will be led to prefer a place where they are sure to get a degree, to a School which leaves them to get a diploma "where they list."

December 1. I am, &c. AN OLD STUDENT.

A Few Words on "Famine" Fever and Lancashire Distress.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As it is possible we may have, at any moment, an increasc of the cotton famiue or destitution in Lancashire, with its consecutive or attendaut sickness, fever, etc. (though we must all earnestly hope such will not be the case)—as I happeued, accidentally, at one time, to have seen a good deal of what is termed "relapsing fever," arising directly from such famine or destitution, will you permit me to mentiou one or two remiuiscences of that calamity that have not faded from my memory? I saw, and studied with some care, in my later student days, a large number of cases of "relapsing fever," typhus, and typhoid, in Ireland—the result of the often-quoted, but always misunderstood, "famine."

I am heterodox enough to agree still with my excellent friend Kennedy, that the three leading fevers may arise from the same poisou, modified by circumstances, though every one must admit the logical clearness and vast ability with which Dr. Murchison argues the point differently. I rather think typhus and "relapsing fever," as both are epidemic, both highly contagious, both destitute of intestinal lesion, etc., to be certainly one aud the same disease; typhoid the same, probably, with something superadded (pythogenic), according to the recipient of the poison and his constitutiou; but here is what I saw, having been the Physician sent by Government to a fever Hospital for some time at the period alluded to, and also having studied a mass of editorial facts, accumulated, as to this fever, by my old friend, Dr. Wylde, of Dublin: I saw that all the destitute (collected, as now in Lancashire) carried about with them, to relief committees, a "miasm," let us call it, that invariably gave them (the poor) relapsing fever; but tho same poison to Medical men, clergymen, Poor-law guardians, etc., attending relief committees, as iuvariably as it was caught, communicated typhus. Even a lady, who has beeu known to come to a relief committee or soup-kitchen a single time, has carriod back typhus to her family! I think relapse in common typhus is rare; but in the Hospital I refer to, we had, in relapse cases, on a certaiu day, even before the patient was quite well, to turn him out, or he would be sure to go back again; ay, three, or four, or five times.

I do not think, notwithstanding all the nonsense in non-Medical authorities (newspapers), that, in this Hibernian famine, the "pythogenic" element was at all active. The mass of the cases were iu the opcn country. I observed also, that relapsing fever prevails, at the commencement, connected with destitution. The miasm seems to take a short time to become maturated, so to speak; but then I would say, when maturated, to local M.D.'s, "Look out for typhus." Dr. Tweedie and Dr. Jenner are right, that typhus is rare in London; but let a clergyman preach to a large congregation, in Lancashire, of very destitute poor, with the seeds of "relapsing fever" in it, that one can almost touch or smell, and he can scarcely escape typhus; so also of Medical men at Dispeusaries, etc.

I am, &c.

Sackville-street, December 1. C. K.

Hemorrhage from Relaxation of the Uterus at the Climax of Life.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel thankful if you will be good enough to give insertion to the following case. Its publication may, in many instances, serve to free the mind of the Practitioner from the apprehension that he has to treat a case of cancer or polypus:—

Mrs. F., aged 53 years, who had been previously in excellent health, and "regular" at each monthly period, was taken ill, ou November 2, of bleeding from the uterus. She had been at the time engaged at her ordinary occupations. As soon as what she called the first floodiug appeared, thinking that the discharge was natural, she made no complaint. Occasional hæmorrhages occurred daily up to Tuesday, when she iuformed a Doctor of the nature of her illness. She uow felt so uuwell as to keep to her bed. Deriving no benefit from the treatment adopted, I was asked to see her on the 8th. After I ascertained the nature of her illness, I grasped the uterus firmly in my hand (I was enabled to do so in consequence of the relaxed state of the abdominal walls), and in some minutes afterwards fixed on a binder as tightly as I could; treating the case as if the hæmorrhage occurred after parturition. I then ordered half a drachm of ergot to be boiled in three ounces of water, and an opiate draught to be taken soon after, aud half-an-ounce of the followiug mixture every third hour:—℞ Plumbi acetatis, ℈j.; acidi acetici; tr. opii, āā ʒij.; aquæ rosæ, ad, ʒviij. The same evening, iu consequeuee of the occurrence of a sudden and very debilitating discharge (which emitted a fetid odour), I considered it necessary to plug the uterus with cotton, saturated in a solutiou of gallic acid. By this means I succeeded in stopping the hæmorrhage. The following morning, as some inconvenience was felt from the plug, it was removed. At noon, auother fetid discharge occurred; and, in consequence of the debility it produced, Dr. Wilkinson was called in. On consultation, we decided on ordering the acid infusion of roses with sulphate of magnesia as a purgative; gallic acid was given in three-grain doses, every fourth hour; and light, unstimulating diet was prescribed. An examination was made for a polypus, but none existed. In the evening, auother fetid discharge took place; and, in the absence of my colleague, I plugged the uterus again with the view of preventing a recurrence of the hæmorrhage. The following morning our patient felt so well that the plug was removed, and the acid infusion of roses was ordered to be taken in ounce doses every third hour. She continued to rally until Tuesday night, when she began to complain of pain over the epigastrium. I then ordered the following:—℞ Hyd. chloridi, gr. xij.; pulv. opii, gr. v.; micæ panis, gr. x.; mellis, q. s., to be made into four pills, one every fourth hour, with the view of counteracting any tendency to peritoneal inflammatiou, an attack of which I dreaded, in consequence of the hard, quick pulse, thirst, dry tongue, and abdominal pains. The following evening I gave five grains of calomel, and she felt so well on the following day, that I ordered her to take some beef-tea and half-a-glassful of wiue at mid-day; the recumbent posture to be continued for three days. At the end of this time she began to resume her daily occupations.

We learn from this case (if the woman's tale be true) that we have no fixed period for that state called the "change of life." I have known this change to occur in delicate women as early as the thirty-eighth year, but in none at so late a period as this which I now bring before your readers. Her history is, that she was married at the age of seventeen. She had two children, a son and daughter; and was left a widow twenty-four years ago.

The question might not be inaptly inquired into—"Is there a probability that she would procreate in case she was iu a suitable condition? In hotter climates than this (I now allude to India and to Spain), I am informed that women rarely procreate beyond the age of forty-three years. This period agrees with our idea, that the climax of life occurs in this country about the forty-fifth year, for young women meustruate in those countries when they arrive at their twelfth year.

Dr. Whitehead, in his work on "Abortion," says, that, on analysis of 4000 cases made in the large manufacturing town of Manchester, he fouud that 136 only menstruated at the age of twelve years, whilst the great majority menstruated betweeu the ages of fifteen aud sixteen years; and Dr. Carpenter, in his work on "Physiology," states, that the period of aptitude for procreation terminates about the forty-fifth year; but that there are cases in which women over fifty years have borne children. I will not, for want of sufficient information, dilate at greater length on these subjects. Apologising for engaging so much of your columns,

I am, &c.

Limerick, November 24. J. B. Moriarty, A.B., M.D., etc.

COMMUNICATIONS have been received from—

Dr. James Blake; Mr. W. S. Scholefield; Dr. J. Wilson Reed; N. E.; Mr. T. Annandale; Dr. Heginbotham; Dr. R. D. Thomson; Dr. Kenneth McLeod; Mr. Griffin, Weymouth; Dr. H. Jackson; Dr. W. D. Moore; Dr. J. McCall Anderson; Dr. R. Lawrance; Dr. Scott Alison; the Hon. Secs. of the Odontological Society; Dr. R. P. Walsh; Mr. F. D. Fletcher; An Old Student; Jersey; Dr. Drysdale; Dr. Ussher; Mr. F. H. Gervis; Mr. C. F. Blackburn; C. K.; Professor Quain.

VITAL STATISTICS OF LONDON.

Week ending Saturday, November 29, 1862.

BIRTHS.

Births of Boys, 971; Girls, 863; Total, 1834.
Average of 10 corresponding weeks, 1852-61, 1708·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	858	887	1745
Average of the ten years 1852-61	659·9	665·8	1325·7
Average corrected to increased population..	..	..	..
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	1	9	17	4	8	8	4
North ..	618,210	3	31	22	3	9	17	2
Central ..	378,058	2	6	8	3	4	14	3
East	571,158	5	17	11	1	8	21	4
South ..	773,175	2	31	35	7	14	14	6
Total.. ..	2,803,989	13	94	95	18	43	74	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·543 in.
Mean temperature	37·1
Highest point of thermometer	51·5
Lowest point of thermometer	24·8
Mean dew-point temperature	34·2
Geueral direction of wind	N.E. & S.E.
Whole amount of rain iu the week	0·10 in.

APPOINTMENTS FOR THE WEEK.

December 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.

8. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Medical Society of London, 8½ p.m. Clinical Discussion. Dr. Thudichum, "On a Case of Rapid Wasting Palsy from Structural Disease of the Spiual Marrow." Dr. Brunton, "A New Auroscope, practically shown." Mr. Hulke, "Fibro-Cellular Polype from the Ear;" "Ivory Peg Used in a Case of Ununited Fracture." Dr. Jephson, "A Case of Myelitis Successfully Treated." And other Papers.

9. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Jardine Murray, "Case of a Double-handed Woman." Mr. Spencer Wells, "History of Ovariotomy, with his Personal Experience in Fifty Operations."

10. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

North London Medical Society, 8 p.m. Paper by W. Adams, Esq., F.R.C.S. Eng.

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

12. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at 2 p.m.:—

By Mr. Fergussou—For Necrosis of the Femur; Tapping an Ovarian Cyst; Excision of the Breast; For Stricture of the Rectum.

SARRACENIA PURPUREA.—THE ROOT

Of this new and valuable Specific for Small-pox (as consigned to us by the Medical Officer of the Royal Artillery who introduced it) is only to be obtained of

MESSRS. SAVORY & MOORE,
143, NEW BOND-STREET, LONDON.

PARHYDOR, OR IMPERMEABLE SILK,

FOR SURGICAL PURPOSES, &c., &c. PATENTED.

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Sold Wholesale and Retail by Messrs. JNO. BELL & Co., 338, Oxford-st., London, W.; and Wholesale by Messrs. MAW & SON, 11, Aldersgate-st., E.C.
Sold Retail by the principal Chemists and Druggists, and Surgical Instrument Makers.
Manufactured by the PATENT WATERPROOFING COMPANY, 3, GREAT WINCHESTER-STREET, LONDON, E.C.
Paper, and Cotton, and Linen Fabrics Waterproofed in the same way.

To the Surgical and Medical Professions.—W. F. Durroch, Manufacturer of Surgical Instruments to the Royal Navy, Greenwich Hospital, Guy's Hospital, &c. &c., begs to inform the Profession that he continues to manufacture SURGICAL INSTRUMENTS of every description, and that he has attained the highest reputation by the approval and patronage of the most eminent Practitioners and Lecturers for the improvements made in various articles. Gentlemen favouring him with their orders may rely on having their Instruments finished in the best and most modern style. Surgical Instruments made to Drawings and kept in repair. Established 1798.
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Pulvis Jacobi ver, Newbery's,

is the ORIGINAL & GENUINE, was ESTABLISHED A.D. 1746,
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Prices for Dispensing—1 oz., 9s.; ¼ oz., 3s. 4d.

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TRADE MARK REGISTERED 1858.

Dr. J. COLLIS BROWNE, M.R.C.S.L., Ex-Army Medical Staff, after many years' study and experiment, succeeded in discovering, in 1846, a remedy which should possess the property of an *Anodyne, Sedative, Diaphoretic, Antispasmodic,* and *Astringent.* For this new remedial agent he was obliged to find a name, and *coined* the appellate "CHLORODYNE," a word unheard of and unknown until he introduced it, in 1856, for public use *through* J. T. DAVENPORT, Pharmaceutist, 33, Great Russell-street, Bloomsbury-square, London, *to whom he confided* the Recipe and its mode of preparation, *never having divulged or published the secret of its formula.*

CAUTION.

The great success attending the use of this extraordinary preparation has induced parties to manufacture compounds in imitation, calling them after the same name. Medical Men are advised of this proceeding, so that they may be guarded against the culpable practice of introducing substitutes in lieu of Chlorodyne, causing thereby uncertainty of action in the treatment of the patient by the Physician, probable disaster to the sufferer, and deception in the preparation.

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ORIGINAL LECTURES.

LECTURES ON THE

BLOOD OF VERTEBRATA.

DELIVERED AT THE

Royal College of Surgeons of England,

DURING THE SESSION 1861-62.

By GEORGE GULLIVER, F.R.S.

Professor of Comparative Anatomy and Physiology to the College.

LECTURE VII.—*Summary View of some of the Chief Results as to the Development, Structure, Size, and Shape of the Red Corpuscles throughout the Vertebrate Sub-Kingdom.*

As some months have elapsed since I had the honour of meeting you, we will now take a sort of Pisgah sight of the red corpuscles throughout the vertebrate sub-kingdom; after which we shall be in a better position to move onwards, without delay, to a more complete account of their offices, and to a description of the structure and use of the fibrin, which Mr. Hunter always considered as the most important part of the blood. Coleridge had his "landing places," and Dugald Stewart loved to stop at the most commanding stations to enjoy, with the companions of his journey, the most interesting prospects of the beauty and fertility of the parts through which they were travelling.

Development.—As this subject seems generally to be misunderstood, especially by certain German writers, we will give a short historical sketch of it, noting the failures and mistakes as well as the present state of our best knowledge on the subject—this method being well calculated to impress the memory—thus also adopting the recommendation of Lord Bacon, to review and re-measure our acquirements, and transplant our knowledge into the minds of others just as it grew in our own. In 1842, I figured the pale cell of the blood of a reptile in progress of development into the red corpuscle, and had so repeatedly made this observation that no doubt remained of its truth. Nor did there then seem to be any reason to suppose that what was true of this animal should not be equally so of Apyrenæmata. But in these, notwithstanding a long attention to the subject, I could never verify the fact; and, in short, gave up the inquiry as unsatisfactory, finding also that Professors Wagner and Nasse had previously better described the formation of the red corpuscle from the pale globule of reptiles than I had done. Thus, my mistake was of the same kind as that then prevailing universally, and which I had already corrected, as to the structure of the permanent or perfect red corpuscles of Pyrenæmata and Apyrenæmata; and which mistake, as far as regards development, still prevails. But, in 1845, Mr. Wharton Jones' memoir appeared in the *Philosophical Transactions*, and showed that the difference in the development of the red corpuscles of these two great divisions of the vertebrates remarkably coincides with the difference which I had before proved, in opposition to the then current doctrine, between the permanent structure of their red corpuscles. And thus, lit up by him, the facts as to development became at once plain, and it seemed surprising how they could have been so long hid. Still more surprising is it that the old error yet remains in our Schools, imported from abroad, and translated for the use, or rather delusion, of our students. Let any one, for example, compare the clear account given by Mr. Wharton Jones, in 1845, with the jumble on the subject in the English version of Professor Kölliker's Anatomy of 1860. How it came to pass that the relative size of the pale cells and red corpuscles proved no stumbling-block to such an error is inexplicable, as will at once appear by a reference to the diagrams (Figs. 5 and 6), in which the pale cell of Moschus is of about the same size as in man, and so much larger than the red corpuscles, that it is impossible to suppose the transformation in question. Nevertheless, though this remarkable excess of size of the pale globules of lymph and chyle over the red corpuscles of the blood, had been clearly described, and often insisted on, in this country since 1839 (*Med. Chir. Trans.*, vol. xxiii.), the fact was utterly ignored in Germany, where the leading assumption in support of Professor Kölliker's doctrine was, and still is, actually founded, and with Professor Lehmann's approbation ("Physiological Chemistry," translated by Dr. Day, vol. ii., p. 273), on the incorrect generalisation of a similarity of size between the pale globules of chyle or lymph and the red corpuscles of the blood. Only look, again, at the diagrams, made from drawings executed at Windsor nearly a quarter of a century ago, and observe the complete refutation they give to those erroneous conclusions—and ought, indeed, to have given long before the English translations were adopted here—of the German Professors.

Fig. 5

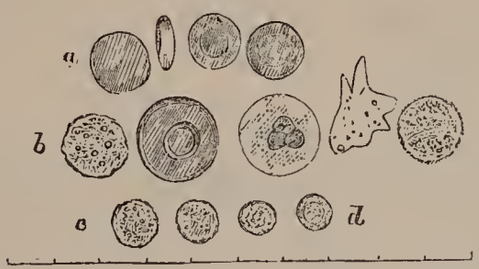

FIG. 5.—Red corpuscles and pale globules of blood, and lymph-globules. At *a*, four red corpuscles; *b*, five pale globules; *c*, *d*, four lymph-globules. The first pale globule, at *b*, contains spherical granules, the last is only minutely granular, and the fourth is collapsed and sending off processes; these three globules are in the natural state; but the second shows its circular nucleus exposed by the action of weak acetic acid, and the third the nucleus divided after treatment by stronger acid. Of the lymph-globules, which are from an inguinal gland, at *c*, the first two are in their natural state; and at *d*, the last two, after having been long steeped in strong acetic acid. From a child, aged 3, accidentally killed.

Fig. 6.

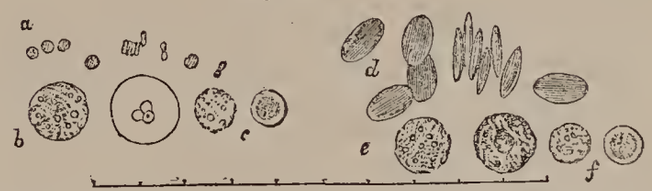

FIG. 6.—Red corpuscles and pale globules of the blood, and lymph corpuscles of *Moschus Meminna* and *Camelus Vicugna*. At *a*, red corpuscles lying flat, in rolls, and on edge, of *Moschus*; *b*, an unaltered pale globule of blood, and the same with a triple nucleus exposed by the action of acetic acid; *c*, first, a lymph-globule unchanged, and, lastly, the same treated with strong acetic acid. At *d*, red corpuscles of *Vicugna*; *e*, two pale unchanged globules of the blood; *f*, two lymph-corpuscles, the first fresh, and the last after having been steeped for hours in strong acetic acid.

The simple facts, as represented by Mr. Jones, are, that the red corpuscle of Pyrenæmata is developed by an extension, flattening, and colouring of the pale cell-wall, the nucleus of which permanently remains; while the red corpuscle of Apyrenæmata is formed from the nucleus, which escapes from the pale cell, and becomes the perfect red corpuscle. And we have shown, since 1842 (Fig. 8), that even the perfect red corpuscle of Apyrenæmata may be the nucleus of a cell.

Fig. 8

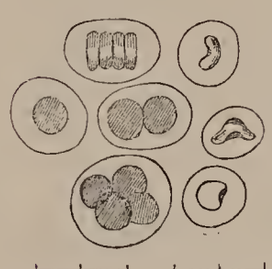

FIG. 8.—Red corpuscles of the blood as nuclei of cells.

Every physiologist is now well acquainted with that rule of development which, as Mr. Green has shown, was originally announced by Mr. Hunter, and by which transient states in the highest correspond to perfect, or more permanent, states in inferior animals. Accordingly, we have exhibited an interesting example and extension of this rule in those temporary states of the blood corpuscles of the early embryo of Apyrenæmata which correspond to the permanent states of the corpuscles of Invertebrata and of vertebrate Pyrenæmata respectively; and it is satisfactory to find the relation of the red nucleated cell of the early apyrenæmatous embryo, when in the pyrenæmatous stage of the vertebrate, confirmed by the recent researches of Dr. Charles Robin; especially as he seems to be quite unacquainted with the English observations of the fact, in 1842 and 1844 (*Phil. Mag.*, p. 107; Willis' translation of Wagner's "Physiology," note, p. 242); and with Mr. Wharton Jones' admission of it in 1845.

Structure.—In the course of these inquiries, we cannot avoid often recognising two orders of facts varying greatly in their degree of value. The first order is general, comprehensive and fundamental; the last minor and subordinate, a group of mere attendants in the train of their chief. The first

comprises what Coleridge has called "central phenomena," worth hundreds of the last, as including them all. To the cursory observer, it might seem of very little consequence

Fig. 3

Fig. 3—Blood corpuscles of the early embryo of a mammalian animal. At *a*, four of the red corpuscles lying flat; *b*, free colourless globules, similar to, but rather larger than, the nuclei; *c*, red corpuscles devoid of nuclei, somewhat smaller and more unequal in size than, but in other respects similar to, those of the mother. At *d*, the corpuscles of *a*, showing their nuclei very distinctly, after removal of their colouring matter by water. The globules *b*, of the pale blood of the earliest apyrenæmatous embryo, equivalent to the permanent colourless corpuscles of invertebrates; *a*, red nucleated temporary corpuscles of Apyrenæmata, equivalent to the permanent red corpuscles of Pyrenæmata; and *c*, perfect red apyrenæmatous corpuscles.

whether the red corpuscles have or have not a nucleus. But however small this point may appear, it is really so large as to claim the dignity of comprehensive truth. While the regular red corpuscle of oviparous vertebrates is characterised by a nucleus, the same corpuscle of Mammalia is as regularly characterised by the deficiency of a nucleus. This, in short, is the most universal, central, and fundamental difference between these two main divisions of the vertebrate sub-kingdom. Yet, this important reality, so well reconciling the discrepancies of former observers, seems quite to have escaped observation during the contentions, described in a former Lecture, as to the presence or absence of a nucleus. Much less was any glimpse ever caught during those contentions of the fact shown by Mr. Wharton Jones in 1845, that the difference of development is as wide as that of the perfect structure proved by me in 1839. Hence, having described, in Lecture I., the value of the essential difference in question, we have characterised (Lecture III., and *Proc. Zool. Soc.*, Feb. 25, 1862) these two great divisions as *Vertebrata Pyrenæmata* and *Vertebrata Apyrenæmata;* and this not in the wantonness of novelty, but simply because no other single diagnostic, hitherto proposed, however large, is really so extensive and universally applicable.

Size and Shape of the Red Corpuscles in the Vertebrate Sub-Kingdom.—We have, in a former lecture, mentioned some of the results on these points as to Apyrenæmata, which we will now connect for the sake of comparison and more completeness with the pyrenæmatous series. Although they may be seen generally in the diagrams, the comparative sizes and shapes are shown far more completely in the plans, engraved to a scale, in the *Proceedings of the Zoological Society*, Feb. 25, 1862. In the Apyrenæmata the corpuscles are mostly smaller than in man (Fig. 5, *a*). Among the few of these vertebrates which have the corpuscles as large as, or larger than his, are some of the Cetacea, the elephant, the capybara, the great ant-eater, and the two-toed sloth; the corpuscles of the great ant-eater (Fig. 9, *a*) and

Fig. 9

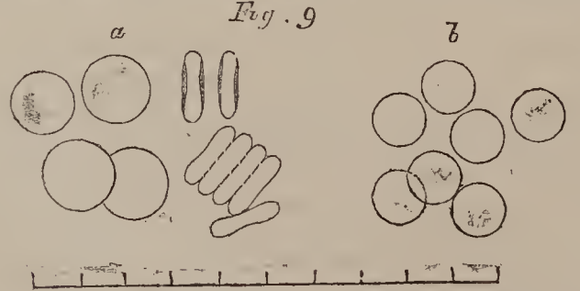

Fig. 9.—Outlines of red corpuscles; *a*, of *Myrmecophaga jubata;* *b*, of those of *Dasypus sex-cinctus.*

of the elephant being the largest yet described in the class. There are orders, as Quadrumana and Edentata, with corpuscles approaching in size to those of man (Fig. 5, *a*); while, on the contrary, the Ruminant order is characterised by the comparative smallness of its corpuscles, and affords the minutest at present known, as you see in the diagram of them in the genus *Moschus* (Fig. 6, *a*). But even certain divisions of a single order, as of the Feræ, may differ regularly in the size of the corpuscles, as may be seen by comparing the diagrams from the typical Viverridæ with those from the Canidæ and Phocidæ; and so you may commonly distinguish the first-named family by the comparative smallness alone of its red corpuscles from the latter families. Whenever a species differs remarkably in the magnitude of its corpuscles from its nearest allies, as represented in the diagrams from *Cercoleptes* and *Hyrax*, that species is likely to prove an aberrant one. The corpuscles of Apyrenæmata are characteristically smaller than in the lower classes; and as to shape, regularly circular, with the exceptions shown in the diagrams from certain Ruminants (as at Fig. 6, *d*).

Comparing the Apyrenæmata with the Pyrenæmata, there is a general difference of form, as well as of size, between the red corpuscles of these two great divisions of Vertebrata; and the short axis of every bird's corpuscle corresponds to the diameter of some apyrenæmatous corpuscle, which the short axis of the corpuscle of lower vertebrates seldom does, as may easily be seen by casting your eyes over the diagrams. In the whole class of birds, without excepting one species, the corpuscles are regularly oval, and are not more variable in size than in a single order of Apyrenæmata; while, moreover, in birds the corpuscles are generally smaller than in the lower Pyrenæmata. Of reptiles, the corpuscles are also regularly elliptical. The smallest occur in the Sauria and Ophidia, and the largest known in the animal kingdom are found in certain Amphibia, as *Proteus*, *Siren*, and *Sieboldia*. The most remarkable aberrations occur in fishes, so that in this class the usual oval corpuscle may either have its ends pointed, present a fusiform shape, or be replaced by the circular form, and even the red corpuscle by the pale cell. And throughout the vertebrate sub-kingdom there is, *cæteris paribus*, a tendency to a relation between the largeness of the sum of the surface of the mass of the corpuscles, and the activity of respiration and general excellence of organisation of the animal; in other words, the proportion of red corpuscles is commonly smaller, and their size larger, in the lowest than in the highest classes. We have already described the exceptions, and how the whole surface of a given weight or bulk of corpuscles must be increased by their minuteness.

Finally, the red corpuscle, while characteristic of the vertebrate sub-kingdom, and affording the most radical diagnostic between its two main divisions, is generally, in structure, form, and size, so much related to the rest of the organisation, as to be really an important point in the anatomy of every species, and never to be disregarded in classification. For instance, seeing the large size, or reptilian character of these corpuscles in Lepidosiren, we might well pause before making it a fish; and could any anatomist now, after an examination merely confined to those in the whale, or in *Ornithorynchus paradoxus*, think for a moment of degrading the one to a fish or the other to a bird? Or, observing only the comparative uniformity in the characters of the corpuscles of birds, should we not be led to realise Mr. Hunter's observation of the similar uniformity in the general organisation of this class? And, as we shall show in a future lecture, the red corpuscles are at least as important in a physiological as in an anatomical point of view. Yet, as to these corpuscles, we are often pestered about "*cui bono?*" more "analogies" or "homologies," and "wider generalisations;" as if the uninquiring mind need expect to perceive the good of anything beyond its own sphere; as if the study of difference, the neglect of which in anatomy was complained of by Lord Bacon ("Works," quarto, 1778, vol. i. p. 68), were not as important and more difficult than that of resemblance; and as if, in the present state of science—"knowing only in part"—we have not had, and are still having, some rather too sweeping generalisations—a sort of Age of Reason:

"No end, in wandering mazes lost . . .
Vain wisdom all, and false philosophy."

Ovariotomy in France.—Dr. Koeberlé, of Strasbourg, has transmitted to the Academy of Medicine the account of his second successful case, the last operation taking place on September 29. M. Boinet has communicated to the same body the detailed account of a similar operation with equally favourable results; the patient was 30 years of age. The treatment was in accordance with that of our countryman, Mr. Baker Brown.

ORIGINAL COMMUNICATIONS.

NOTES ON CAUSES OF EARLY MORTALITY.

By J. WHITEHEAD, M.D.

No. III.

Still-births and Abortions.

One circumstance relating to births remains to be noticed: that, namely, which has reference to the immature—including untimely events at all stages of the process, and the still-born. Although forming a considerable item in the number of conceptions, and certainly of sufficient importance in a scientific view, existing records do not furnish satisfactory information on both these subjects. On the Continent, however, this branch of inquiry, so far at least as regards the death-rate at birth of those arrived at the stage of viable development, has received considerable attention.

Still-births.

On examining the records of still-born children, one is struck with the fact of the high numerical preponderance of males over females, as compared with the corresponding relations of those born alive. From the statistics of the kingdom of Hanover, it appears that, of 21,844 still-births, 12,645 were males, and 9,199 females; being at the rate of 137 males to 100 females. The relative proportions are found to be very similar for several other States whence particulars on the subject are furnished—as for Belgium, 136·8; Bavaria, 134·6; Saxony, 137·3 to 100 respectively, and for France still higher(a).

In the French registration, these events have, since the year 1841, formed a class apart, not being included in the tables of either births or deaths generally. This is a judicious arrangement, and might with advantage be universally adopted. Under this head are inscribed all children dead at birth, whether at the full period of gestation or premature; the latter term comprising all that had attained to the seventh, eighth, or ninth month, at either of which dates the various organs of the fœtal body are considered to be sufficiently developed to secure a vigorous integrity in after-life, of those born alive at these respective stages of prematurity. But abortions—that is to say, births which occur earlier than the end of the sixth month—the earliest acknowledged period of viability, form another and distinct class, not thus far included in any registration system.

In France, in the year 1842, the number of still-born children amounted to 30,366, of whom the proportions of the sexes stood at 144·9 males to 100 females. These relations vary in different localities; being influenced, apparently, by conditions associated with the density or segregation of populations, by moral agencies, and the nature of industrial pursuits, and, doubtless, also by the availableness and efficiency of Medical skill in its application to parturition, as well as the nursing supervision and hygienic appliances on these trying occasions.

For the town populations collectively, the disparity of the sexes at birth is considerably less than for the rural districts, and lower still for Paris and the department in which it is situated—being lowest where the population is most dense, and gradually increasing towards the suburbs of St. Denis and Sceaux.

The following statement exhibits the proportions of males and females, dead at birth, of the three classes above specified in France, for two years in succession:—

	To 100 females.	
	1853. Males.	1854. Males.
Department of the Seine. .	125·85	126·90
Town populations . . .	136·83	137·03
Rural populations . . .	158·90	152·37
Mean total for France .	148·47	145·03

The comparatively low estimate of male still-births, as represented in the first and second items, in both columns, must be accounted for chiefly by the abundance of Medical resources available in towns, and especially so in the metropolitan circuit, as compared in this respect with rural districts.

As regards children born *in* and *out* of wedlock, it is found that the proportion of still-births is considerably greater for the latter than the former, as is shown in the following statement for 1853, which is a fair representation of such occurrences generally:—

	Of 100 births.			
	Born alive.		Still-born.	
	Legitimate.	Illegitimate.	Legitimate.	Illegitimate.
Department of the Seine	72·81	27·19	70·54	29·46
Town population . .	87·88	12·12	84·28	15·72
Rural population . .	95·91	4·09	92·81	7·10
	92·71	7·29	88·24	11·76 (b)

Comparing the sum of live-births with the still-born, the following results for eight years in succession, including the whole of France, are obtained:—

	Total births.	Still-born.	No. of still-born to 100 births.
1851	1,011,572	31,665	3·13
1852	1,002,981	37,901	3·78
1853	975,631	38,640	3·96
1854	963,239	39,778	4·13
1855	940,349	38,013	4·04
1856	992,002	40,786	4·11
1857	982,614	41,905	4·26
1858	1,013,095	43,702	4·31

Hence, it appears that the rate of congenital mortality in France has been steadily, though slowly, on the increase, from 1851 to 1858, the per-centage of still-births for the first of these years being 3·13, while for the last-named it stood at 4·31. It is not difficult to assign a reason for the high preponderance of these events among the illegitimate as compared with the more fortunately circumstanced; but why the general rate of birth mortality should have thus gradually augmented at a time when unwonted efforts are being made, with a view to ameliorate human suffering and preserve life, is less clearly intelligible. It is true, the increase noted for 1858 is confined to the illegitimate; but this result seems to be only compensatory of fluctuations, on the other side, during several of the preceding years.

"In 1858, the per-centage of still births among the legitimate was 4·05; but of those born out of wedlock, 7·47.

"In 1857, these relations stood respectively at 4 02, and at 7·15; the increase of still-births is, therefore, confined, on this occasion, to the illegitimate.

"Still-births being sensibly more numerous among the illicit conceptions, it naturally follows that there should be found a greater proportion of them among densely-crowded communities. And such is what acually occurs in the department of the Seine, and the town population generally, as compared with that of the rural districts, as represented in the following statement:—

	Illegitimate Still Births.
"In the department of the Seine .	6·61 per cent.
In the town population . . .	5·29 ,,
In the rural population . .	3·75 ,,

"It remains to be added, that the rate of birth mortality is considerably higher among plural conceptions than those which are single. Thus, the general rate of still-births, which was shown to stand at 4·31 per cent. in 1858, amounted, in the same year, to 14·31 for twin cases, and to 35·02 for triplets"(c).

It was stated that the total number of births, the still-born included, amounted, in 1858, to 1,013,075.

These births were the product of 1,002,078 accouchements, namely, 993,039 single, 9,781 twin, and 158 triple births.

"Of the 9,781 accouchements which produced twins, in 3,339 cases both children were males; in 3,061 both were females; and in 3,391 a male and female each.

"Of the 158 triple accouchements, 53 of them produced each 3 males; 23, each 3 females; 39, each 1 male and 2 females; 43, each 1 female and 2 males.

"In births of this category the sexual relations stand in the proportion of 106·91 males to 100 females; while, for the whole French population, the relations are 106·56 to 100"(d).

(a) "Dict. de l'Econ.," pol. Art. Pop.

(b) "Statistique de la France," t. 1.

(c) Legoyt, "Ann. de l'Econ.," pol. 1861.

(d) Legoyt, *ibid.*

Abortions.

It is difficult to approach a subject of this nature with any reasonable prospect of arriving at a satisfactory knowledge of the actual prevalence of abortive gestation, since no sustained systematic record of such events, so far as I know, has hitherto been made in any country. Nor is it very probable that an inquiry, so fraught with embarrassing circumstances as this is, will be sufficiently elucidated for some time to come.

With a view to obtain information hereupon, I interrogated in succession 2000 women admitted for treatment at the Hospital of St. Mary, Manchester. Most of these applicants were, at the time of inquiry, in the latter months of pregnancy, a few of them so for the first, and probably as many for the last time. Their mean age was 30·34 years; the average number of their pregnancies, including, in each case, that which was not yet completed, 5.74; and the average number of their abortions, exclusive of premature births, ·52 for each.

More recently, the histories of 3000 women, inscribed, along with their children, on the books of the Clinical Hospital, afford the following results:—Mean age, 30·5; average of pregnancies, 5·14; average of abortions, ·54. Of this number 1349 were under the age of 30 years,—their mean age being 25·23; the average of their pregnancies, 3·0; and that of their abortions, ·24. The mean age of the remaining 1651, all of whom were above 30 years old, but still bearing children, was 35·70, average of pregnancies, 6·9; and that of abortions, ·73 (e).

It is not presumed that the results of so limited an inquiry can be reliably employed to represent the law which regulates such occurrences generally; yet, seeing the regularity with which these events, ranged in equally subdivided groups in ordinate succession, have happened, it is not improbable, at least, that the issue of further investigation would not widely vary from them.

The investigations from which the preceding estimates are quoted, were registered and grouped in the following order:—

	Age.	Average of Pregnancies.	Average of Abortions.
1st 1000	30·03 years	5·19	·52
2nd 1000	30·67 ,,	5·46	·52
3rd 1000	30·20 ,,	5·11	·56
4th 1000	30·70 ,,	5·24	·51
5th 1000	30·23 ,,	5·00	·56
Mean . .	30·36 ,,	5·20	·53

From the preceding statement it will be seen that the age of about 30½ years may be assumed to represent the middle of the child-bearing period in this country, and that at this age the average rate of abortive deliveries is represented by ·53. Consequently, the latter half of the child-bearing term being, as already shown, somewhat more prolific of these untimely events than the first half, an average of about 1·25 of *ascertained* abortion may be assigned to each mother in the course of her career of maternity, an assumption which seems to be substantiated by the results of the next inquiry.

The histories of 1000 intelligent mothers, all of whom had attained to the age of forty years and upwards, and all under the author's personal notice—the majority having been so for several years—afford the following particulars:—The sum of their pregnancies, already completed, was 8563, averaging 8·56 for each; of this number, 1287 were ascertained abortions—pregnancy having terminated at various periods between the latter part of the third and the end of the sixth month—yielding an average of 1·28 for each. But, as some of them were still bearing children, and, consequently, still susceptible of an untimely issue, the above estimate may be considered to be below the real value. Deducing, however, from the figures as given, it follows, that to every 7·28 children born at viable age, there were at least 1·28 known abortions, being at the rate of 15 per cent., or 17·7 such accidents to every 100 of other births, whether at full term or premature, the still-born included. So that, besides the 689,881 registered births in England in 1859, there occurred in the same year, according to the above estimate, 120,729 pregnancies which ended abortively, from the end of the third to the end of the sixth month, exclusive of still-births and all earlier abortions.

(To be continued.)

(e) The term "abortion" is here intended to represent all premature events of this class occurring before the period of viability, "miscarriage" being considered as only a synonym.

A CASE OF ANEURISM OF THE CŒLIAC AXIS—WITH REMARKS.

By F. A. BULLEY, F.R.C.S.
Senior Surgeon to the Royal Berkshire Hospital, Reading.

Mr. G. G., aged 33, a guard on the Great Western Railway, apparently of good constitution, and who had formerly served as a cavalry soldier in India, consulted me, October 8, 1861, on account of a pulsating tumour in the epigastrium, situated about midway between the ensiform cartilage and the umbilicus. The tumour, which is slightly but perceptibly elevated above the surrounding abdominal surface, is somewhat globular in shape, hard to the feel, and rather tender on pressure, which also produces a kind of gurgling noise, as if some portion of intestine was adherent to it. Examination by the stethoscope gives a sharp, rough sound, but not at all of a blowing character in any part of it. Gentle pressure on the upper part of the tumour produces a purring, thrilling sensation, as of blood passing out of an aneurismal tumour into some smaller and probably compressed artery. He has been suffering lately from great pain in his back and loins, which comes on suddenly, and is at times most agonising. The sounds of the heart and thoracic aorta are perfectly natural. He attributes the production of his disease to his having, about five months ago, been exposed to cold and great exertion, in trying to get a train out of a cutting, where it had become snowed up on a frosty winter's night.

To take five grains of the Pil. saponis cum opio every night, and the following liniment to be rubbed into the back at bed-time: ℞ Tinct. capsici, ʒij.; liniment. camphoræ comp., spiritus ammoniæ aromat., āā ʒj.; m. ft. liniment; the lower part of the spine to be afterwards fomented for an hour with hot water.

October 31.—Has been feeling better since last report, the pain in the back being diminished, and he can now hold himself more upright than he has hitherto been able to do. He has continued to feel great relief from the fomentation and liniment. The tumour appears to be somewhat firmer than it was, but it still pulsates strongly, and with the same rough sound as before; it is, however, not quite so tender on pressure. He now takes the sedative pill only occasionally at bed-time.

November 15.—Still apparently improving; the bruit is not so noisy or so sharp as it was; and he says he feels satisfied, by his own examination of the tumour, that it has become considerably smaller and harder.

December 15.—Improving. Has been able to walk out a little very slowly, but not without increasing the pulsation, and producing a slight return of the pains in the back.

February 7, 1862.—I have not thought it worth while to record the patient's progress very minutely since the last report, but his symptoms have, to all appearance, been gradually improving. The tumour is certainly much reduced in size, harder and freer from pain on pressure, and he suffers little or no uneasiness in his back. There is now no particular sound over the prominent part of the aneurismal swelling, except the peculiar gurgling noise already mentioned,—nothing more, in fact, than the ordinary aortic pulsation underneath, but changed somewhat into that peculiar wave-like, undulatory murmur, described by Medical writers as accompanying the washing of blood, diverted from its usual course, round the walls of an aneurismal cavity. The tumour had by this time become so solid to the feel, that I began to entertain a hope that the sac had become nearly obliterated by deposited fibrin, and that his disease might possibly in this way undergo a spontaneous cure. His general health had improved in proportion, and he had gained flesh and strength, so much so that he was allowed to do a little light duty on the platform, and ultimately, at his own urgent request, to return to his usual service with his train, which he continued to perform for some time without discomfort, until one day, being suddenly called upon to use a little more exertion than usual with his brake, he felt a severe pang in the situation of the tumour, as if something had given way at the part, and he was thenceforward obliged to discontinue his occupation, to which he never afterwards was able to return.

The future history of the case, comprising a period of five months, would be nothing more than an account of his progressive decline. Soon after the accident I have mentioned, he began to suffer more severely and frequently from the pain in the back, which was only relieved by repeated large doses

of opium. His appetite became capricious, with constant sickness; and he became so much emaciated that the aneurismal tumour, which now occupied a considerable portion of the space between the ensiform cartilage and the umbilicus, stood out in bold relief from the surrounding surface, whilst its pulsatory movements, as it rose and fell, were distinctly visible to the eye. He was subject to the most distressing catchings in his sleep, which shook his whole frame by the violence of the pulsations they produced. Occasionally he was attacked with severe aching pains in his arms. He was mostly confined to his bed or couch, but now and then he was able to walk about a little, and once or twice he felt himself strong enough to take a little ride in the open air.

July 7, 1862.—Nine months from the date of my first attendance, I was requested to see him about 8 o'clock in the evening. I found that he had been walking in his garden, and on his return to the house had sat down upon the sofa, saying he felt very ill, and immediately fainted away. On his recovery from this swoon, his whole body became bathed in a profuse cold perspiration, his feet and legs particularly being of an icy coldness. The slightest pressure on the tumour caused intolerable pain, his face was expressive of the greatest anguish, and his whole appearance was indicative of approaching dissolution. The tumour itself appeared to be about as large as it had generally been lately, and there was no appearance of its having burst suddenly into the peritoneal cavity, the abdominal parietes remaining flaccid and compressible as usual. He revived a little under the use of stimulants, but afterwards, becoming gradually weaker and weaker, he died exhausted at half-past twelve the same night, about five hours from the first appearance of his fatal symptoms, the prominence of the tumour, having, as I have been informed, subsided considerably just before his death.

Post-mortem Examination Thirty-nine Hours after Death.—The body was greatly emaciated, and in a state of commencing decomposition. The prominent, globular projection of the tumour observable in life had disappeared. The aneurismal sac itself was about as large as a middle-sized cocoa-nut, somewhat elongated, and was partly formed by a uniform regular dilatation of the aorta, commencing a little below the diaphragm, and extending about seven inches along the artery, and partly by a particular expansion of the cœliac axis, which was dilated into a kind of supplementary pouch, capable of containing a small tennis ball, from the front part of which arose the branches of the axis, apparently unaffected by the disease, except as they passed through the lamellated parietes of the tumour, where they were a little compressed, but still perfectly pervious. This portion of the sac when opened was found to contain a small quantity of ordinary coagulum in its cavity, but was very little thickened by the deposit of laminar fibrin, which was not more than half an inch thick in any part of it. The aortic portion of the sac, in which there was also but a small quantity of laminated fibrin, was remarkably attenuated at its back part, as if the coats of the artery had been gradually wearing away, and was almost inseparably adherent to the subjacent vertebræ, the bodies of several of which, but especially the ninth and tenth, were eroded, and indeed more than half destroyed, by the pressure of the aneurismal tumour, while their intervening cartilages remained entire. A portion of one of the small intestines, apparently the ilium, was firmly attached to the cœliac dilatation by its mesentery, between the layers of which the aneurismal sac was contained; and from the greater appearance of effusion at this part, although the opening could not be exactly discovered, it must have been near this spot that the rupture had, probably, occurred, the effused blood having insinuated itself between the laminæ of the mesentery and mesocolon to a considerable extent in every direction, widely separating the layers from each other, and in one or two parts, especially of the ascending colon, had seemed to pass completely round the intestine, deeply staining its peritoneal investment. There was very little blood extravasated into the cavity of the peritoneum, what little was found there appearing to have escaped in detaching the viscera in the examination. The aorta above the aneurismal sac was rather larger than natural, while just below it was considerably diminished in size; but there was no appearance of osseous or calcareous degeneration of its textures in the neighbourhood of the disease.

I regret that, owing to the body having been placed in the coffin just prior to our inspection, we were unable to extend the examination to any of the other organs of the body.

Remarks.—The records of pathological anatomy afford but few instances of this somewhat rare form of aneurismal disease. The few cases which I have been able to collect will be observed to differ in some respects from the one I have related, inasmuch as, with one exception, there was no particular implication of the aorta in any of them; and in this respect, perhaps, they may be considered as better illustrations of uncomplicated aneurism of the cœliac axis than the one I have described.

For the notes of this and the following case, I am indebted to the kindness of Mr. Chatto, the Librarian of the College of Surgeons, who obligingly assisted me in my search.

Case 1.—The following case, occurring in the clinical wards of Professor Concato, of Bologna, is reported in a recent Number of *L' Union Médicale*. The patient, a mason, aged 38, of somewhat intemperate habits, was seized, November 11, 1861, while at work at his trade, with a feeling of excessive prostration, accompanied by severe epigastric pain. Being sent to the Hospital, a pulsating tumour was discovered at the left side of the epigastrium, which, from its shape, mode of pulsation, and connections, was diagnosed as an aneurism of the cœliac axis. On leaving the clinic, the man fell down suddenly dead. On opening the abdomen, its left side was found to be filled with a large coagulum, the rest of the cavity containing about six pounds of a sero-sanguinolent fluid. Behind and above the lesser curvature of the stomach, there was also observed a large coagulum, on the removal of which, a tumour of about the size of the head of a six months' fœtus was exposed. At the upper part of its anterior surface there was a large irregular aperture. The aneurismal sac was, in great part, filled with a reddish-yellow, granular matter, on the removal of which, the walls of the cavity were observed to be lined with layers of coagulated lymph. The aorta was normal in its whole course, the aneurism, which was entirely formed by the dilatation of the cœliac axis, appearing to be simply adherent to its anterior surface. The renal and mesenteric arteries were quite regular in their situation and distribution. At the junction of the upper two-thirds with the lower third of the aneurismal sac, two large branches communicated with its cavity, the one being the splenic, the other the hepatic artery.

Case 2.—This case, extracted from the *Deutsche Klinic* for 1856, occurred in the practice of Dr. C. W. H. Uhde. A man, 45 years of age, had been suffering, since the beginning of August, 1856, from diarrhœa and pain in the region of the stomach. His appetite had been good. On the night of August 22 he was seized with vomiting and purging, and increased pain in the upper part of the abdomen, the pulse remaining quiet and tranquil. The pain was relieved in the course of two days by the use of opium. There was no particular fever. On the morning of September 1 he thought himself very well; but in the afternoon of that day he suddenly fell down, as if struck by a blow, his countenance became pale, and in a quarter of an hour he died. The post-mortem examination discovered an aneurism of the cœliac axis, which had burst into the cavity of the abdomen.

Case 3.—The case of a man, aged 69, who died in St. George's Hospital from dropsy, resulting from disease of the heart and kidneys,—from the *Transactions* of the Pathological Society, by Mr. T. Holmes, April 20, 1858. In this case the aorta was extremely dilated, and extensively atheromatous. In the situation of the origin of the cœliac axis was a large aneurism, about the size of the first opening into the abdominal aorta, by a hole about the size of half-a-crown, with rounded edges. The sac was nearly filled with laminated and partially-decolorised coagula; in the centre the clot was soft, and it seemed as if circulation had gone on through this part. The three branches of the cœliac axis opened out of the part of the tumour opposite to its opening into the aorta, and appeared healthy. One of them, probably the hepatic, wound round the swelling, and was compressed, but quite pervious. The superior mesenteric artery also presented, at its base, a small aneurismal pouch, which was empty. No symptom had been observed, during the patient's stay in the house, connected with the aneurism, nor was he known to have complained of any previously.

Case 4.—The following case is from the report of the Liverpool Pathological Society, for July, 1846, and related by Dr. James Turnbull. A sailor, 23 years of age, pale and thin, came under Dr. Turnbull's care, in the Liverpool Northern Hospital, in the beginning of June, 1845, with a pulsating tumour in the epigastrium. He had recently returned from

a voyage to the East Indies, during which he had an attack of dysentery, and he first perceived the pulsation at St. Helena when recovering from it. He could assign no cause for the tumour, but thought that it had been produced by the dysentery. The tumour was situated just under the cartilages of the false ribs on the left side. It was distinctly circumscribed, and had a strong pulsation. When the stethoscope was applied to it, a loud bellows murmur, having a hoarse, aneurismal character, was heard during the pulsation. It was audible also along the aorta, but diminished in intensity in receding from the tumour. The sounds of the heart were quite natural, and the pulse was 70. He complained of severe pain in the tumour, increased by examination, and had been at one time unable to lie down. He had also sickness and vomiting, which were relieved by hydrocyanic acid with digitalis, and by muriate of morphia. On the evening of July 5, he was seized with agonizing pain in the abdomen, collapse rapidly followed, and he died about twenty minutes afterwards.

Inspection. — The abdominal cavity contained a large quantity of coagulated blood, which had oozed out of a small opening in a tumour, which at first sight appeared to be an aneurism of the aorta. The tumour was as large as a moderate-sized apple, and was found to be an aneurism of the cœliac axis, the three branches of which were seen coming off from its anterior part. Within, several layers of fibrin were deposited. The heart, the valves, and the coats of the aorta appeared to be healthy.

OPERATION FOR ARTIFICIAL PUPIL,

IN A YOUNG WOMAN, TWENTY YEARS OF AGE; BLIND FROM INFANCY, IN CONSEQUENCE OF A SEVERE ATTACK OF PURULENT OPHTHALMIA.

By Mr. TUDOR,

Surgeon to the Dorset County Hospital.

Ann A., aged 20, admitted into the Hospital May 1, 1862. The right eye is totally destroyed, and collapsed within the orbit. The left is smaller than natural anteriorly, with a shrunken and somewhat flattened state of the corneal surface. There is a complete internal squint, attended with a ceaseless rolling motion of the eyeball. Occupying the centre, and a portion of the inferior hemisphere of the cornea, is a dense circular opacity, about three to four lines in diameter, whilst the superior and surrounding portion is quite transparent. The pupil, on the first examination, was just visible, situated behind the opacity, contracted to a mere point, and, when dilated with atropine, its lower segment was seen to be incorporated with the body of the iris in the scar; there is entire loss of vision, but the girl has always retained a strong perception of light. The history of the case is, briefly, one of those unfortunate results of a severe attack of infantile purulent opthalmia, which occurred within the first fortnight after birth. Neglect on the part of the nurse is the cause assigned by the mother. The girl was educated in a blind asylum, and when she came, accidentally, under my notice, was living with her parents, following the usual occupations of the blind.

After carefully watching the case in the Hospital for several weeks, I determined upon operating, with the hopes of a favourable result. In consequence of the constant rolling motion of the eyeball, it was necessary to give chloroform. A section was made with a broad cutting needle through the upper margin of the cornea, immediately opposite the scar; the blunt hook was then carefully passed through the anterior chamber to the edge of the pupil, when a portion of the iris was withdrawn, and excised close to the wound.

After the operation, the eye was lightly covered, the lids being secured with a thin strip of plaister, and the patient confined to bed screened from the light. No inconvenience followed the use of the chloroform. An examination was made on the fifth day; the result was satisfactory—the patient could see, although, at this period, there was only a very confused and imperfect perception of surrounding objects. She was now allowed to get out of bed, and exercise the eye for a short time daily; in this, the greatest caution was found to be necessary, as from some imprudence, at the expiration of about six weeks, in the over anxiety on the part of the patient to exercise her restored faculty, general congestion of the organ was excited, which, for a week or ten days, placed her in a most critical condition, temporarily destroying the sight which had been gained.

A few leeches were applied, and the eye covered with a moistened rag, all light being excluded. When the more active symptoms were relieved, a small allowance of wine, with steel and quinine, was given. I am convinced that too much care cannot be observed in the treatment of a case of this nature. The gradual, and what to me appeared, slow development of a recovering sense, was most interesting to watch, from the first act of *seeing* the light, to the more perfect acts of vision when she left the Hospital in September.

At first, there was the outline of the ward, and then the perception of the figures of individuals, and articles of furniture; then the power of counting the number of fingers placed before the eye, distinguishing gold and silver coins, etc. At the expiration of three months from the operation, the patient could discern one person from another, find her way about the Hospital, read large type, and distinguish colours. On leaving, she was furnished with tinted spectacles, and, since her return home, makes herself useful in the house, and continues to enjoy very good sight. As the lens is absent, the patient will be furnished with a suitable convex glass in the space of a few months.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

MIDDLESEX HOSPITAL.

CASE OF LARGE SEBACEOUS CYST BENEATH THE TONGUE.

(Under the care of Mr. HULKE.)

Cysts of this kind have (Mr. Hulke remarked) been confounded with ranulæ, with which they have nothing in common, except their situation. In the simple character of the wall, in their contents (scaly epithelium, oil, and cholesterine), and in the age at which they are most common (above puberty), they resemble those tegumentary cysts that originate in an obstructed follicle; and in one of five cases Mr. Hulke had seen, a small bead of sebaceous matter could be squeezed out through a minute orifice in the buccal mucous membrane, just as may sometimes be done with a wen. The absence of growths, such as hair, from their wall distinguishes them at once from the proliferous, tegumentary cysts, which Lebert describes under the term "dermoid."

The best treatment consists in a free incision into the cyst, through the buccal mucous membrane, large enough to allow the stiff sebaceous matter to be squeezed out, and, when the cyst has been emptied, to detach it from its connections, and remove it entire. This was easily effected in two of five cases by pulling the cyst wall with one forceps, whilst its cellular adhesions were torn with a second forceps. In other three cases, where the removal of the cyst was not practicable, the case was left to suppuration, and, in each, a permanent cure resulted.

A maid-servant, aged 23, came to the out-patient room, May 8, 1862, scarcely able to speak or swallow. This difficulty was caused by a tumour which filled the right side of the mouth, rising up between the tongue and the lower jaw, above the level of the crowns of the molar teeth, and thrusting the tongue upwards against the palate, and towards the left. In front the tumour reached to the symphisis of the jaw, and behind it touched the anterior faucial pillar. It also protruded below the lower border of the jaw, forming a considerable swelling in the neck as low as the level of the cricoid cartilage. It was soft, and fluctuated obscurely, or, to speak more exactly, was impressible; and on compressing the cervical an impulse was given to the buccal portion of the tumour. This fluctuation left no doubt as to its cystic character. Its evident separation from the buccal mucous

membrane by a stratum of tissue of some thickness, together with the absence of the characteristic leaden colour, and the want of œdema or other signs of inflammation, excluded the supposition of a ranula or abscess. It was, therefore, supposed to be a sebaceous cyst, and was treated by incision. A quantity of very stinking, putty-like stuff was squeezed out, but the cyst itself could not be removed. A layer of gland-tissue was observed beneath the mucous membrane between it and the cyst. Very acute inflammation followed, attended with so much œdema, that respiration was much embarrassed, and fluids only in small quantities could be swallowed. As the œdema of the submucous tissue made the opening in the cyst insufficient for the free escape of its contents, the incision was freely extended, and a large additional quantity of the putty-like stuff was ladled out with the scoop of a director, its consistence being too great to allow its spontaneous escape, or to permit its being got out by pressure. After this the œdema rapidly subsided; the discharge became daily more puriform; but it was several days before all the sebaceous material disappeared. The quantity of pus, discharged daily, diminished very slowly, and suppuration did not finally cease till the end of September, at which date the only trace of the tumour was a small hard scar in the line of incision.

CASE OF LARGE FIBRO-CELLULAR AURAL POLYPUS.

(Under the care of Mr. HULKE.)

March 8.—A mechanic, aged 19, came to the out-patient room with a polypus, nearly of the size and figure of a cherry, protruding from the concha of the right ear. This globular portion had been visible, externally, nine years; in its elasticity and translucence, it closely simulated a cyst; its surface was dry and smooth, and redder than the neighbouring skin. The stalk, thick and fleshy, nearly filled the external auditory meatus, and seemed to be rooted at its bottom. A thin, inodorous discharge had been present eleven years. Hearing was quite extinct.

As the thickness of the stalk prevented the introduction of a forceps into the meatus, the polypus was torn out with a Wilde's snare. The root was found to be very firmly attached. There was severe headache for the next few hours, but it ceased the same night, and did not return. The meatus was kept clean by daily syringing; and at the end of ten days the cuticle, which before had been opaque and swollen, was healthy in appearance, and the otorrhœa had ceased.

The lad was next seen several months afterwards. At this time there had not been any recurrence of the discharge or polypus.

On section, the polypus had the rough appearances of udder, and it consisted of a web of connective tissue filled with serum.

THE LONDON HOSPITAL.

SPONTANEOUS EXPULSION OF A FŒTUS, WHICH PRESENTED THE LEFT SHOULDER.

[Reported by W. B. Woodman, M.D., late Resident Obstetric Medical Officer to the London Hospital.]

On September 15, about seven p.m., I was requested by my friend, Mr. Kitching, to visit Sarah D., aged 35, residing in Bethnal-green. He told me he had been called to the case rather more than an hour before, on account of a transverse presentation, which had not been recognised till after the escape of the liquor amnii. Labour had commenced at nine a.m., and the pains were for some hours very strong. They had, however, flagged somewhat towards evening, and some ergot had been given. This, probably, increased the difficulty of turning, which Mr. Kitching told me he had attempted for more than half-an-hour, without success. The presentation had, most probably, been the left shoulder originally, as the left hand had, I found, descended, and was now externally visible; but the right hand had also cleared the os uteri: whether this had originally presented, I cannot say. I at once attempted to turn, but, although after considerable difficulty I did at last reach one foot, the uterine contractions were so strong, and cramped my hand so, that I could not bring it down, and, having let it go, I could not again recover it. Altogether, I persevered for an hour, with no better success than my friends; for, I believe, the gentleman who first attended had also tried. In this dilemma, before resorting to any operative proceedings, I resolved to call in further assistance. Mr. Kitching and myself left for this purpose, after giving forty drops of tr. opii; leaving the former attendant in charge. Some delay ensued, and when we returned it was ten p.m. The gentleman in charge told us the child was being expelled, and, on examination, we found it was so: the back, being doubled up, had cleared the external parts of the mother, the mechanism being that shown in Fig. 114 in Churchill's "Midwifery" (fourth edition), except that the arm, there shown by the side of the head, was pressed close to the side instead, both hands having descended. The breech and feet soon cleared, and all we had to do was to assist the head, by one finger in the mouth, etc. The child was, of course, still-born. It was of almost average size, and weighed about 6 lbs. It was not mature, however, as the catamenia last appeared on December 20, 1860. The woman had been pregnant eleven times, had eight good labours, one lingering, with a still-born child, and two miscarriages. The pelvis, though of fair size, was certainly not large. She made a rapid recovery, spite of three "rash hands," as Dr. Blundell would have said, having been introduced into the uterus. Without advocating for a moment the useless employment of the hand within the uterus, I may remark that, although I have often had to introduce my hand for the extraction of the placenta, for flooding, or version, whilst Resident Accoucheur at the London Hospital, and otherwise, I have never seen the slightest ill-consequence from this proceeding; none of these cases having any subsequent bad symptoms.

ST. MARY'S HOSPITAL.

CASES SHOWING THE VALUE OF DIGITALIS IN ENFEEBLED HEART — CLINICAL REMARKS — DIGITALIS A CARDIAC TONIC.

(Cases under the care of Dr. HANDFIELD JONES.)

Case 1.—A short, stout-made man, aged from 65 to 70, was admitted February 22, 1861. He had been ill several weeks, with short breath and pain in the front of his chest, gradually increasing. He is now in great distress for breath, panting quickly, and unable to get into an easy position. He moves about restlessly, cannot lie down, gets only a little broken rest, looks ill and worn. Legs dropsical, swollen, and firm. Skin cool. Pulse feeble. Heart's sounds weak; no evident murmur; the area of dulness is greatly extended, both to the right and to the left. The impulse is very weak and diffused. No arcus senilis. Good breathing in both lungs, except at lower and posterior part of the right. Dr. Jones said: "I felt timid about giving digitalis, yet I thought no drug so likely to benefit the heart by its stimulant and tonic action, so, with some fear and trembling, I prescribed—

"Tr. ferri muriat., ♏x.; tr. digitalis, ♏x.; spt. æth. chlor., ♏x.; aq., ℥j., ter die."

25th.—To Dr. Jones' great surprise and satisfaction, he came from his room at the top of the house, down three pairs of stairs, to the ground floor. He seemed so much better that it was scarcely credible. His breath was still short, but he had none of that panting distress which had been so marked three days before. His legs were less swollen. His pulse, and the action of his heart, were much better, stronger, and firmer. He was still unable to lie down comfortably. He lay best on the left side. The heart's sounds were still free from murmur. A pill of cannabis indica and stramonium, which Dr. Jones had prescribed for him, had not appeared to be of much use, and was now changed for one of extract of hyoscyamus.

March 12.—He has improved materially, and during the last week has been taking—

℞ Ammon. sesquicarb., gr. iv.; tr. digitalis, ♏xv.; spt. æth. nit., ℥ss.; mist. camph., ℥j., ter die.

℞ Ferri sulph., gr. ij.; acidi arseniosi, gr. $\frac{1}{10}$; extr. conii, ft. pil., ter die.

21st.—He is much improved, and walks up-stairs well. His pulse is still weak and small. His legs are much less swollen; the anasarca is peculiarly firm and elastic, scarcely pits at all. Tincture of cinchona is now substituted for the tincture of digitalis.

April 2.—He has lately had a relapse, and is confined to his room with the same symptoms.

℞ Inf. digitalis, ℥iv.; spt. æth. nitr., ℥iv.; spt. æth. sulph. co., ℥jss.; pot. nitratis, ℥j.; aq. menthæ sativæ ad., ℥vi.; m. cap., ℥j., ter die. Rep. pil.

6th.—He is again much better.

13th.—Going on exceedingly well; walking out, and seeming in fair health. Scarcely any swelling of legs. Pulse good, steady, regular, quiet. For the last few days he has had the same mixture, with sesquicarbonate of ammonia and tincture of digitalis, which he was taking a month ago, and also the iron and arsenical pills. The arsenic is now omitted, but the mixture continued twice a-day.

Some weeks after this he was anxious to do something for his maintenance, and took a place in his old vocation as a courier with a party, but he got no further than Cologne, where he was taken ill with his former symptoms, and died in the Hospital there.

Remarks by Dr. Handfield Jones.—Although other drugs were given in this instance, I have no doubt that the great improvement was chiefly owing to the digitalis. For—1. It was too rapid to be the effect of the tincture of the sesquichloride of iron; and the chloric ether cannot be considered as having any remarkable virtue. 2. When bark was substituted for the digitalis, a relapse occurred, although he was still taking ammonia and iron. I am certain, although the notes only afford negative evidence of it, that there was no considerable diuretic effect produced. Certainly, the rapid amelioration of the first few days was not owing to clearing away dropsical fluid. The heart was evidently hypertrophied and dilated, its valves presumably healthy, but its muscular tissue certainly enfeebled either by interstitial fibroid deposit (Jenner), or by fatty change. The urine, I think I can be sure, though I have not a special record of its state, was fairly healthy, not albuminous. The point of the case is, then, that digitalis was given in a condition when the heart's action was certainly failing, and the circulation becoming seriously embarrassed; and that, in place of enfeebling the cardiac action still more, it evidently reinforced and renewed its functional capacity for a considerable time.

Case 2.—E. G., a carpenter, aged 50, was admitted February 27. He has been ill one year. He has had no rheumatic fever nor "inflammation of the chest;" no arcus senilis, and he is not anæmic. He complains that walking a little distance brings on a violent fluttering and trembling sensation at the præcordia, attended by a sense of suffocation, and also pain in the shoulders and numbness of the right hand and great perspiration. When this goes off it leaves the "heart heavy," and he is excessively weak, and has a feeling as if his knees would give way, while, at the same time, he is continually making water, which is clear. He says he is often obliged to press his side to get relief from the heavy, dead, gnawing pain. A full meal will increase his distress; he cannot lie down for the sense of suffocation. Pulse weak, small, regular, visible at both elbows, scarcely so at wrist. Jugulars not distended. No dropsy. Respiration quiet. No morbid sounds in posterior parts of chest. Right lung descends far pushing down liver; left seems of normal size. The impulse of the heart is diffused, visible in epigastrium, not in normal situation. Its rhythm is quite regular. To the left, outside of papillary vertical line, at the base of the left of the sternum, up to both clavicles, and at both sides of neck, and at each side of the epigastrium, a loud, single, prolonged, blowing murmur is heard, loudest at the sides of the epigastrium. No other sound is audible. Murmur at heart is nearly synchronous with the radial pulse, rather precedes it. Exercise makes the murmur louder.

From the date of his admission to April 21, he took iodide of potassium, compound iron pill, with opium, strychnia, ammonio-citrate of iron, and sesquicarbonate of ammonia, in infusion of Calumba. The last was of material benefit for some while, but at the end of the time he was in much the same state as at first. He was then ordered, ℞ Tinc. digitalis, ♏xij.; tinc. ferri muriat., ♏xv.; spt. æth. chlor., ♏x.; aq., ℥j., ter die.

This he took with some phosphorated oil, after the first three weeks, till June 2. On this he improved very much, and described himself on May 19 as having less fluttering, trembling, and breathlessness, but that as soon as he got tired his heart became "heavy and dead." The digitalis was omitted, as it seemed to be causing some gastric irritation. He went on with sesquicarbonate of ammonia in infusion of chiretta, and with the phosphorated oil, to which was added, on June 5, a scruple of the saccharated carbonate of iron three times a-day. On the 19th his symptoms were worse, but the breath sound was still clear, especially at the back of the chest. The digitalis, iron, and chloric ether mixture was now resumed, the dose of the first being fifteen minims three times a-day.

June 26.—The patient remarks, "I think that medicine seems to agree with me." He could lie down now for three or four hours, which he was unable to do before. To take the mixture four times a-day.

He continued decidedly improved till July 7, when he complained of a painful sensation, like that resulting from a violent blow at the region of the heart, which seemed to be connected with an attack of catarrh. On July 10 the iron and chloric ether were exchanged for a mixture containing four grains of quinine and fifteen minims of tincture of digitalis. This seemed to agree fairly well with him for fourteen days, after which Dr. Jones lost sight of him for nearly a month. When he saw him again dropsy had set in, and there was considerable gastric disorder. The dropsy increased, and he died towards the end of September. The urine on August 25 was fairly healthy, free from albumen. Dr. Jones pressed very much to be allowed a post-mortem, but was refused.

Remarks by Dr. Handfield Jones.—The foregoing case is an exquisite example of great dilatation and enfeeblement of the heart. The hypertrophy was much less than in the first case, and the dilatation was quite predominant. No better case could be imagined to test the influence of digitalis, and the result was certainly unequivocal. Instead of causing any further depression of the enfeebled organ, it decidedly increased its tone and power, and enabled it to carry on its function better than when any other remedy was given. If digitalis were in any degree a cardiac depressant, it would have extinguished the weak contractility of this poor fellow's heart, instead of arousing it. No special diuretic action ensued from its administration; and, as there was no dropsy for some considerable time, the improvement of the heart's action cannot be referred to any relief of the circulation in this way. On the whole, the two cases related afford some evidence that digitalis is *κατ' ἐξοχην*, a *cardiac tonic*, and certainly prove that it may be given with advantage in cases of great cardiac debility. The observations of Winogradoff and of Traube, as to the influence of digitalis on the pressure in the arteries, go very much to confirm this view; and Kulp's account of the action of digitalis in inflammatory disease, seems to prove that it induces arterial contraction, rendering the hands and face cold. Its action upon the uterus in menorrhagia, and on the arteries in hæmorrhages, seems, also, to be of this kind. Diminishing the frequency and arrest of the heart's action depend, according to Traube, on the predominating excitement of the vagi, the regulating nerves of the heart; while increased action depends on the sympathetic nerves being more strongly excited. He regards the action of digitalis as at first stimulating and afterwards depressing. I am inclined to question this view, as certainly in the above cases there was no evidence of its causing depression at any time. It seems to me more probable that, when digitalis induces dangerous symptoms, it is from its producing a tetanic state of the heart, *i.e.*, stimulating this hollow muscle so strongly to contract, that it does not duly relax and admit a supply of blood. In any fatal case of digitalis poisoning it would be most important to ascertain the exact state of the heart's cavities, whether they were contracted or relaxed. On the whole, I am much inclined to think that digitalis may be more safely used in asthenic conditions of the heart than in the opposite. What little experience I have had of its use in delirium tremens points in the same direction. It seems to be injurious in sthenic, and beneficial in asthenic cases.

The phosphorated oil referred to in the second case is made with phosphorus and almond oil, five or ten grains to the ounce. Dose, five drops.

HOSPITAL FOR SICK CHILDREN.

ABSCESS IN THE SUBSTANCE OF THE PSOAS MUSCLE, AFTER AN ACCIDENT, BURSTING INTO THE PERITONEUM AND INTESTINE; AND PRODUCING DEATH BY PERFORATION AND EXTRAVASATION OF FÆCES—CLINICAL REMARKS.

(Under the care of Mr. HOLMES.)

George B., aged 8, was admitted into the Hospital for Sick Children, October 11, on account of supposed disease of the hip. It was said that nothing had been known to be the

matter with him until October 3, when he was pushed down while at play. Three days afterwards he was taken to a Medical man, on account of inability to walk, with shortening of the limb, and inversion of the foot, presenting some of the appearances of dislocation. The hip-joint could be moved in all directions; but he complained of pain when this was done, and was accordingly sent to the Hospital with the above diagnosis.

On admission, the right thigh was found firmly flexed on the pelvis; but there was nothing unnatural about the hip-joint. The slightest attempt at extension produced such great pain, that, in order to examine the parts, chloroform was given. The limb was then extended with no great difficulty. There was no hernia. The spine appeared healthy. On examining the right iliac fossa, the abdominal wall was found to be tense and resisting; this resistance extended some way upwards. The parietes in this situation were dull to percussion, while in other parts of the belly the resonance of the intestines were strongly marked. Palpation made out a large mass, filling the iliac fossa. It was irregularly defined, and felt hard; but the tension of the wall of the belly prevented any accurate judgment as to its consistence. No impression could be made on it with the fingers.

The diagnosis remained obscure. Mr. Holmes remarked that the swelling might be one of three things—an accumulation of fæces in the caput coli, an abscess, or a malignant tumour. He was disinclined to the first supposition, both because it did not account for the contracted condition of the psoas muscle, and because no impression could be made on the mass with the finger. Still he thought it well to evacuate the bowels freely by enema and cathartic medicine, with the intention, if the symptoms were not relieved, of making an incision into the iliac fossa, on the following day, to ascertain the nature of the swelling.

The boy, however, became rapidly worse, with every symptom of perforation and fæcal effusion into the peritoneal cavity; restlessness at first, with much pain in the abdomen and frequent sickness; then, on the following morning, extreme pain, with rapid sinking, pulse feeble, and soon becoming imperceptible; limbs cold; face clammy and sunken. He died at four p.m.

In the post-mortem examination, the incision which was meditated during life (one similar to that used in tying the external iliac artery) was first made, and immediately it had penetrated beneath the cæcum, without opening the peritoneal cavity, a large quantity of fetid, dirty greyish, puriform fluid escaped. On opening the peritoneum a large quantity of fæcal fluid mixed with pus was found filling it, and all the intestines on the right side of the belly were found matted together with lymph. On separating these adhesions, a large ragged hole was found in the cæcum, the appearance of its edges showing that it had existed during life. The communication with the abscess outside the peritoneum was not demonstrated. The fibres of the psoas and iliacus muscle were infiltrated with puriform fluid, and they were ragged and broken in many places. The abscess extended down in the course of the muscle nearly to the small trochanter, but not upwards towards the spine, which was carefully examined, and found quite healthy. No signs of disease appeared in any other part of the intestines as far as the examination extended. About two feet of small intestine and the cæcum and ascending colon were examined.

Remarks by Mr. Holmes.—The diagnosis of this case was obscured during life by several circumstances. The history was hardly sufficient to account for such acute symptoms. The natural supposition at first was, that it was a case of acute psoas abscess connected with diseased spine. That supposition being negatived by examination of the vertebræ, and that of fæcal accumulation in the cæcum by the circumstances before mentioned, the probability of an abscess in the iliac fossa presented itself; but this was difficult to admit, since the resonance of the cæcum, which ought to have been raised by such an abscess, could not be made out. Then the sudden symptoms of fæcal extravasation were equally difficult to account for. That the extravasation was fæcal was confidently predicted during life from the exact resemblance of all the symptoms to what is noticed when this accident occurs after hernia, etc. The most probable solution of the case seems to be, that it was an abscess forming in the psoas muscle as a result of injury to its fibres, or partial rupture. Such an injury has been known to prove fatal from suppuration. (*Vide* Sédillot, quoted by Mr. Tatum, in "Holmes' System of Surgery," iii. 523.) That an abscess, originating outside the peritoneum, should establish a communication with the intestines is common enough; and if this communication lay close to the reflexion of the peritoneum, we can easily understand how likely the adhesions limiting the opening would be to give way, and establish a passage for the fæces into the serous cavity.

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Medical Times and Gazette.

SATURDAY, DECEMBER 13.

MEDICAL PRACTITIONERS BEFORE CORONERS' JURIES.

We wish there were some mode of setting before the public the monstrous quantity of unrequited toil which members of our Profession undergo. We do not speak here of the so-called gratuitous services of Hospital Physicians and Surgeons, for these gentlemen may fairly be said to undertake their duties knowingly and willingly, and expect to be requited by opportunities of experience and of achieving a good Professional name. But we speak of services extorted either openly and wrongfully, or meanly and surreptitiously, from men who do not profess to practise their Profession without payment.

We hear so many anecdotes of the wrongs and frauds committed on the Medical Practitioner, that our only difficulty lies in the selection. But here are specimens. A Practitioner establishes himself in a certain increasing suburb, and sets up a neat house and coloured lamp. Near him a new street is building. One day, whilst he was eating a frugal one o'clock dinner in his back parlour, there comes a horde of Irish work-people, bringing one of their comrades—*magna comitante catervâ*—who had tumbled from the scaffold, and hurt his head. This neat little consulting-room is soon filled with half-a-dozen dirty fellows, gesticulating and jabbering, and our friend dresses a broken head, and does what is needful. He applies for payment to the builder who employed the man, and is refused, on the plea that the "man ought to have been taken to the Hospital." A second time the same thing happens, with this improvement, that the injured man, on recovering from the concussion, vomited about the place. Now, supposing our friend had rejected this second case, and the man had died, and suppose the builder had been one of the coroner's jury—what an opportunity for a censure on the inhumanity of a Surgeon!

The other case is this: A poor person, absolutely without means of payment, sends late one evening for a well-known Hospital Physician. The latter goes at some inconvenience and expense, and finds a patient absolutely destitute, who was going into the Hospital next day, but coolly said he thought some one ought to see him that evening! Thus, do the public think themselves entitled to our skill, time, and labour. They make no allowance for the exhaustion of strength, of temper, and even of the faculty of attention, by

the hard work of daylight, but they think that at any hour of the night they have a right to wake up and disturb, and bring out any man who has the misfortune to live in the neighbourhood. Without remorse they leave people to suffer all day, and then late at night, or in the middle of the night, send a peremptory message that the Doctor *must* come, because the patient has already been ill for three or four days.

And we, for our parts, knowing all this, yet most seriously advise our readers to put up with it. We must not lower our Profession to the level of a mere trade. We must act up to those high professions of disinterested benevolence which excite such admiration in the "Introductory Addresses" to the Medical Schools (a). We cannot profess one thing and do another.

If all our high professions of philanthropy be not mere hypocrisy, go we must, when sent for, as a rule. Any prudent man, if sent for, should, if he be *bonâ fide* unable to go, from fatigue or other just cause, at least, refer the applicant to the parish Surgeon, or to the parish overseer, or relieving officer.

Any passing inconvenience—the loss of a night's rest, or the interruption of business—is better than having to stand in the false position of culprit before a jury. Look at the following extract from the *Staffordshire Advertiser*:—

"A Surgeon Censured by a Coroner's Jury.—On Friday, the 21st instant, an inquest was held by Mr. Hooper, coroner, on the body of John Reynolds, aged 20 years, a labourer on the new railway in course of construction from Tipton to Wednesbury. It was shown that the deceased was taken ill on the previous Sunday, complaining of sore-throat, and being unable to eat anything, and continued so during the whole of Monday. Mr. Horton, of Wednesbury, is employed as Surgeon to the men, but he was not sent for. On Tuesday morning, at about two o'clock, the persons with whom deceased lodged were called up by another lodger, and found deceased much worse, and unable to speak. They sent to Mr. Mills, Surgeon, who lives near, but he refused to get up, and then they sent to Wednesbury for Mr. Horton, but the poor man was dead before he could reach him. The jury returned a verdict to the effect that deceased died by the visitation of God; at the same time adding that they considered Mr. Mills had acted very inhumanly in not going to see the deceased, as he lived so near, and they were sorry to say that it was not the first time Mr. Mills had acted in a similar way. The coroner stated that, although a Surgeon was not bound to attend when sent for, he entirely approved of the remarks that had been made by the foreman and other members of the jury, and took the opportunity of expressing his regret that there was not some resident Surgeon in the place who would not refuse to attend when sent for in such cases as the present. Mr. Mills, in justification, says there appears no reason to believe that any assistance would have been of avail to the deceased, and adds, 'I do not see why I should be expected, because I have the misfortune to live in the neighbourhood, and to be a professional man, to turn out of a warm bed at two a.m. without pay, and give that skill gratuitously which it has cost me considerable time and expense to obtain. It is easy for a jury to pass a vote of censure, but I question whether, if the messenger had called on any one of them at two a.m, he would have been very willing to find my fee.' Mr. Mills adds, that on the occasion of a similar case in London, the coroner had directed the police to pay for attendance on such cases, which are usually left unpaid for."

Mr. Mills' remark is perfectly just, and those of the coroner and jury were such as they had no right to make; yet it were better had there been no occasion for them. There seems really no reason why Mr. Mills should have been troubled; yet, if he had attended, he might have administered a just rebuke to the carelessness of the persons who allowed the sick person to remain so long without treatment.

Another and still more serious case has occurred at Leamington. The wife of a shoemaker, named Bull, was delivered of twins on Tuesday, November 11. She was thirty-seven years of age, and this was her ninth pregnancy. She had suffered from catalepsy, severe pain in the head, and symptoms of brain disease for "some years" previously; and on the 18th—*i.e.*, a week after her confinement—was seized with severe headache, which was followed by hemiplegia of the right side on the 20th, and death on the 25th. A post-mortem revealed "red softening" and "four or five apoplectic clots in the left hemisphere of the brain." Thus far the case is simple enough, and we should never have heard of it, but that one unfortunate circumstance led to a coroner's inquest.

The patient was attended by a midwife, who, when she found that it was a case of twins, and that there was some hæmorrhage, very properly sent for Medical assistance. The first child was born at four a.m., and Mr. Philbrick, who was sent for about seven, came immediately. He seems to have remained with the patient about half-an-hour, during which time he verified the fact that there was another child to be born, and said it presented *by the feet*, and then left the patient in the midwife's hands, desiring her to send for him if she wanted further assistance. It seems, however, that hæmorrhage returned or continued, and, as the child did not come into the world, the husband went again to Dr. Philbrick about half-past eleven. Then Dr. Philbrick declined to attend further, on the ground that he was compelled to go to a distant consultation, and recommended the man to seek another Medical attendant, which he agreed to do. What follows reads uncommonly like a parody of the parable of the Good Samaritan, with the chief character left out:—

"I then went (said the widower) to Dr. X ——, and told him that Dr. Philbrick had been to my wife; that he was obliged to go out of town, and I should be very pleased if he would come. Dr. X —— said, 'Have you an order from the parish?' I said, 'No, but I will certainly pay you, if you will be kind enough to come.' He said, 'Have you got the money to pay me down?' I said, 'No, I cannot do that, I have not the money by me.'—The Coroner: Then you mean to say, if you could have paid the money he would have come?—Witness: That was what he signified to me. When I told him I had not the money to pay him down, he said, 'I cannot come; I have to go into the country—you must get Dr. Philbrick.' I then went home, and a neighbour kindly volunteered to fetch Dr. Horniblow. I also went to Mr. H——'s surgery, but he was out. I then ran to Mr. E——'s, but they were so long in answering the bell that I went on to Mr. Fenn Clark's. I had an interview with him, and he came with me. It would be about three o'clock in the afternoon when he got to my house. Mr. X —— did say, 'Will you pay me down,' and when I said I could not do that, he said, 'You must get Philbrick; I cannot possibly come; I have a case in the country I must go to.'—The Coroner: It amounts to this, if he had been paid he would have come?—Witness: That is it. —Mr. Smeeton: Did Mr. X—— understand the critical state your wife was in?—Witness: I told him as nearly as I could how she was."

Whilst this poor wretch was running about for a Doctor, some woman fetched Mr. Horniblow about ten minutes past one. His evidence is as follows:—

"When I went into the bed-room I found the deceased in a very exhausted state. From just looking at her I saw that there was a second child, but I first put my hand on the abdomen. I made no examination beyond what I have just stated. I at once began to censure the midwife for allowing the case to go on so long without calling in a Medical man, and she then told me it was not her case, it was Dr. Philbrick's. I then said, 'I have seen Dr. Philbrick within a very short time; you must rout him out, and bring him to the case, and make him attend to it.' I also said, before leaving the house, that if Dr. Philbrick wished for any assistance, I should be at home and would come. Having said that, I left the house, and in about ten minutes the woman waited on me again, and said that she had seen the servant and Mrs. Philbrick, and from their manner she believed Dr. Philbrick was at home. I then said, 'It is a serious case; I do not think I am justified in taking it alone, but if you will get any Medical man to be present with me I will undertake the case. I waited at home an hour, although I had to go out of town, in case I might be sent for either by Dr. Philbrick or to accompany another Medical

(a) See an extract from Mr. Postgate's Lecture in another page.—Ed.

man.—By the Coroner: I believed I had seen Dr. Philbrick in the street about twelve o'clock, but I cannot say positively that it was him.—By Mr. Overell: I have attended upwards of 3000 cases of midwifery, which is more than falls to the lot of most men. Seeing the state of the case, *had I been called in in the first instance, I should certainly not have considered it proper* to have left the deceased. When I left I believed Dr. Philbrick would be sent for again, and that he would attend. At the time I was told there was no hæmorrhage, and I do not think there was any danger in leaving the deceased until another Medical man could be called in—say twenty or thirty minutes. I think the benefit which might accrue from having a second opinion in such a case would more than compensate for the loss of time. Had I been called in in the first stage, I should have used means to produce uterine contraction. Had I been in attendance, I should, under no circumstances, have left the deceased. I should consider it very improper to leave such a case even with an experienced nurse. I should not have trusted such a case as this to a midwife. During my practice I have always acted on the principle never to leave a difficult midwifery case."

At three o'clock the husband was lucky enough to meet with Mr. Fenn Clark, who came at once, and found the patient very exhausted, with the hands of the second fœtus presenting. He very properly turned and removed the fœtus (which was dead), and remained with the patient for four hours till the further hæmorrhage, consequent upon an adherent placenta, had ceased. The patient seemed to be doing well during the first week, then was seized with the head symptoms which we have before described, and died.

After the other witnesses had been examined, Dr. Philbrick tendered his evidence, after receiving a caution from the coroner, that anything he said would be taken down, and might be used against him. He said:—

"On the morning I was called up to attend the deceased, I was summoned from my bedroom window, without being aware what was the matter; and had I known it was the case it proved to be, I should not have attended at all. I had not been spoken to, and I had a prior engagement which I felt I could not neglect. When I went into the house, and entered the bedroom of the deceased, I found her lying on the bed, a midwife in attendance, and a child born. I asked the nurse what was wanted with me, and what was the matter. She stated that she wanted my opinion on that point.—The Coroner: What point?—Dr. Philbrick: Upon what was the matter. I said, if that was all that was wanted of me, I could soon give it her upon making an examination. I then proceeded to examine the deceased, and found that there was a second child, and I said, 'There is a certainty of a second child, and it is presenting feet foremost.' After stating this, I examined the patient generally by feeling the abdomen, etc., and I found she was not a very strong person. I expressed my opinion that she was a weakly woman, and desired the midwife to give brandy and get some other woman to help her. I asked her if she was competent to undertake the management of the case, and she said she was—that she had had several such cases, and that the last she had had was a twin case of a similar kind. There was at that time no hæmorrhage; the pains were not absent, but moderate in power, and there were no symptoms of immediate danger. After having asked if she was competent to undertake the case, *I told her I should leave for a time*, and, if there were any symptoms requiring my presence, I would come back and render any assistance I could. I did not state that she was to send for me in four hours; but, as soon as the pains changed and became a little stronger, she was to send for me directly. That was supposing she required my aid. In my own mind I thought she would not, or I should not have left her. On going down stairs I met her husband, who asked if I was going to leave, or if I was coming back? I said, 'I will come if I am required;' but, as he had employed a midwife, I did not further interfere, unless I was desired. Mr. Overell: There is a statement made by the nurse that Dr. Philbrick said he had turned the child before leaving it in the morning.—Dr. Philbrick: I never turned the child, certainly not.—The Coroner: How did you know it was a foot presentation?—Dr. Philbrick: I felt the heels of both feet. It would not require turning. I think I can explain how a mistake of that kind might arise.—The Coroner: I think there is no mistake; you said you went down stairs and said it was a foot presentation, and Mrs. Boucher says the same.—Mr. Overell: Can you explain the change from a foot to a hand presentation?—Dr. Philbrick: *If both statements are correct*, I can only explain it by *spontaneous evolution* having taken place."

Dr. Philbrick then relates that he heard nothing more of the case till a quarter-past eleven, when he was preparing to go out of town to keep an appointment, and recommended Mr. Bull to get another Medical attendant, which he promised to do. Some singularly insolent questions as to this appointment were put by a juryman, who wanted to know the nature of the case on which Dr. Philbrick had a consultation; and we do not see that the coroner interposed any check.

The coroner then summed up, saying:—

"Gentlemen of the jury: The first point which I shall put to you is, if the death of Mrs. Bull has been caused or accelerated in consequence of the treatment she has received? The next point is, whether the treatment she has received arises from want of skill or want of attention on the part of Dr. Philbrick? Now, it is quite clear that, unless there has something passed which takes the case out of the rule—which is, that if a Medical man undertakes a case of labour at all, it is his imperative duty to attend to it from first to last, and that he must attend his patient with an ordinary amount of skill—Dr. Philbrick has not complied with the practice of the Profession. Supposing you should be of opinion, gentlemen, that he has not attended the case with a proper amount of skill, of course it will be your duty to say so. Now, the point which has been made on the part of Dr. Philbrick is, that he was only called upon to attend the deceased in what he thought a casual way—that is to say, his services were not forestalled. Mrs. Bull had not called upon him, as is the usual practice in these cases, to ask him to attend to her. It is perfectly clear, in the first stages of the affair, he made a most unfortunate mistake. The mistake of taking a shoulder presentation for what is called a foot presentation is a mistake which a Medical man should not have made at all, and one which is calculated to lead to most serious consequences, because it is clear if it had been an arm presentation it would have been his duty to have turned the child, or if it was a foot presentation he should have done more than he did at the time—leaving it alone for the ordinary process of nature. Now it will be for you to say, whether you think the version of the presentation given by Mr. Clark is true, because, if so, the account which Dr. Philbrick has given cannot be true, and there has been a want of skill on his part which has led to the most serious consequences. The next point is, that Dr. Philbrick, although, upon his own showing, he was not going out of town until the middle of the day, and although it is a case of twins, which we are told by Medical men requires especial care, still thinks it fit and safe to leave the deceased in the charge of the midwife, and, so far from thinking that he should not be at home if required, he distinctly says to the midwife, 'When the labour pains show themselves again more strongly, send for me.' Now, it is a very painful thing for you to decide, and under peculiar features of this kind it is a very difficult thing for you to say, whether or not the treatment of this person by Dr. Philbrick, from the hour of seven in the morning, when he was first called in, till half-past eleven, when he was sent for again, shows a want of skill. But all the Medical witnesses agree in saying, notwithstanding severe cross-examination, that a case of this kind ought not to have been left for a single instant. In that opinion I certainly quite agree. All the evidence seems to tend to the fact, that it was not a proper thing to have done, and even Dr. Philbrick himself says he has attended cases of twins, and that he should not think of leaving them to the care of a midwife. His answer is, that *he did not consider he had charge of the case*, and, therefore, he did not treat it with the same attention as he should have done if he had been in charge. It is for you to say whether that is correct. I do not think you must hold Dr. Philbrick at all responsible for anything that occurred *after* the second interview with Mr. Bull, which Dr. Philbrick fixed at about a quarter-past eleven. Then Dr. Philbrick might look upon himself as no longer in charge of the case; you must consider his responsibility ceased at that time."

It had been sworn that death from the brain disease had been accelerated by the hæmorrhage, and it would be for the jury to say whether the acceleration had been due to a want

of Medical treatment. Referring to Dr. Horniblow, and his declining the case on grounds of etiquette, the coroner said—

"I cannot help expressing my opinion that Dr. Horniblow, if he had known the facts, would have put etiquette aside, and have taken charge of the case. It is clear Dr. Horniblow was not at all responsible. He was called in to the case, and found some one had been in attendance, and then he retired. Whether that was a wise step to take, of course I do not undertake to say. All the facts will be before the public, and the public must judge for themselves. All I say is, that there seems every reason to believe this poor person has been sacrificed to a point of etiquette, which I think is a very great pity."

The jury retired to consider their verdict at a quarter to nine, and at twenty minutes to ten returned the following verdict:—

"'That it is the opinion of the jury that there was not that attention paid to the deceased on the part of Dr. Philbrick which the case required, and that he was mistaken as to its being a foot presentation; and the jury wish to speak of the humane conduct of Mr. Fenn Clark in the highest terms of commendation, for waiving the ordinary etiquette of the Profession in his attendance upon the deceased.'

"The Coroner: Now I have to consider what is the effect of your verdict. The question I have to decide is, whether it amounts to one of 'manslaughter,' because you have not stated the effect of your verdict.

"The Foreman: We wish to be in ignorance as to the effect of it.

"The Coroner: Yes, you are quite right. But you see you do not say whether that want of attention has been the cause of death, or of the acceleration of death. That is the point, but, perhaps, you did not intend to do it.

"The Foreman: The jury do not intend to say whether any want of attention or want of knowledge on the part of the Professional attendant was the cause of death.

"The Coroner: Then I do not think it amounts to a verdict of 'manslaughter,' and I will enter it accordingly. Whatever it amounts to, what has taken place to-day will be a great caution and warning to him."

We humbly conceive that this is no verdict at all, and that the jury left their clear duty undone, in order to censure Dr. Philbrick.

We will add, as shortly as possible, a commentary on the leading features of this most distressing case.

In the first place, it is a great pity that an inquest was held at all. It was a useless and malevolent act, and calculated to injure our Profession, and benefit no one. The connexion between the hæmorrhage and the attack of paralysis seven days subsequently is at least open to doubt.

In the next place, why did not Dr. Philbrick, at seven o'clock on that Tuesday morning, act like a man of sense, take off his coat, and turn the second child? He might have got home to his breakfast in an hour. Or, if he did not choose to take the case, why not send a written request to some other duly qualified Practitioner? Clearly, he accepted the charge and responsibility of the case, and could only discharge himself by turning it over to some other Medical man. We do not allege that he was compelled to have taken charge of it: he might have said—'My engagements do not permit me to take this case; get another Medical man.' But he *did* take the responsibility. The question as to foot or hand presentation admits, we think, of only one solution.

Thirdly: as for the "etiquette" part of the question, we deny the existence of any rules of etiquette that are injurious to the safety of the sick. A man who refuses to act and to save a life, and alleges etiquette as an excuse, cannot understand what "etiquette" means. We think that if the coroner was just to Dr. Philbrick, he was uncommonly lenient to Dr. Horniblow. We can imagine any prudent man called in to a midwifery case which has been bungled, and refusing to do anything without a Professional witness—else he might be accused of having done some mischief; but we doubt the prudence of leaving a patient at one p.m. with an undelivered twin, when the first child had been born eight hours previously, and bleeding had been going on. The coroner went out of his way to pay Dr. Horniblow a compliment on his general character for kindness, which, we believe, was well deserved. But we must say, that, if a man of skill and benevolence could leave that poor creature at one o'clock on a ground of etiquette, it is clear he could have seen no danger to life; and there is an end to the charge against Dr. Philbrick. If A. was justified in leaving at one p.m., B. was *à fortiori* justified in leaving at seven a.m. If the patient at one o'clock was safe, Dr. Philbrick is acquitted: if in danger, Dr. Horniblow condemns himself.

Lastly: in the name of the Profession, we protest against the idea that we hold questions of payment or of etiquette superior to the lives of our fellow-creatures, and especially of women in childbirth. It is a mystery to us that the parish Surgeon was not called in. But, in any town or neighbourhood, we should hope that one or more Medical Practitioners might be easily found who would see a poor creature in complicated labour without fee, and share with each other the trouble and responsibility which such a case brings with it.

HALL *v.* SEMPLE.

In our last article we have been remarking on the penalties to which Practitioners of Medicine are subjected, if they refuse to attend to any demand made on their time and skill, it matters not from whom it may come. We have now to call our readers' attention to a case which painfully illustrates the position in which the Professional man is placed, who lends too ready an ear to the representations of a chance patient, and thereby allows his judgment to be influenced, and his sympathies to be enlisted. In our remarks on the trial which has now for five days engrossed public attention, we wish to state *in limine* that we do not come forward as the blind and uncompromising advocates of Dr. Semple. We are ready to allow that he not only erred in judgment in a doubtful case, but that he formed his judgment too hastily, and on evidence which, however conclusive it appeared to his mind, was not in itself sufficient. But, having said this, we have said all. His error was one to which any Professional man is liable. No man can say how he would have acted under similar circumstances until he has been placed in those circumstances. In discharging the various engagements which make up the daily life of the Physician, in the performance of the all-important duties demanded of him by society, it would be more than human not at times to err. But on the heads of no other body of men is error visited so cruelly as on that Profession who have truer claims on public gratitude and support than any other. During the past week, we have had the spectacle of a Physician of high professional standing and repute, of acknowledged probity and worth, of irreproachable character, made the butt of all the shafts of malevolence and vindictiveness, his reputation attacked, his every word and act twisted and tortured into evidence against him, and himself and family subjected to ruinous legal expenses, because he has once, in the course of twenty-six years' practice of his profession, formed too hastily a mistaken opinion. This is a plain, unvarnished statement of the case. We now proceed to relate and comment on certain points in connection with his trial.

We commence with the general conduct of the prosecution, and the charges brought against the defendant, Dr. Semple. The original charges or counts made against the defendant were three. The first was, that he had caused the plaintiff, Hall, to be arrested and falsely imprisoned; the second, that he had falsely, maliciously, and, without reasonable or probable cause, signed a certificate of the patient's lunacy; and the third, that he had falsely, maliciously, and, without reasonable and probable cause, induced one Guy to sign such a certificate. It is true that the first and third counts were abandoned in the course of the trial, for there was not a

particle of evidence to sustain them, but not until after they had been used to excite the strongest prejudice in the public mind against Dr. Semple. In the opening speech of Mr. Chambers, the counsel for the prosecution—a speech, we believe, unexampled in forensic licence—Dr. Semple was charged with having been privy to, and directing the arrest of Hall, with having entered into a conspiracy with Hall's wife and Guy, and with having acted throughout as if actuated by a personal enmity, for which no term of reprehension is too strong. The evidence disproved every tittle of these accusations. But the mischief was done. Not only were the jury and audience deeply prejudiced, but the public press lent itself to the prosecution, and every vile charge was retailed beyond the limits of the Court, as if it required no facts to support it. The prosecuting barrister was directed to assert, that Hall had been dismissed from confinement by the Commissioners of Lunacy because he was a sane man. Nothing was further from the truth. The prosecution knew well that the Commissioners of Lunacy had expressed no opinion as to his sanity, but that they had simply directed his discharge, in consequence of the illegality of Guy's certificate; and an attempt was even made by the prosecution not to produce the order of release, signed by the Commissioners, by sending away out of Court the book containing it on the day on which it was required. Yet the assertion, that Hall was released as sane by the Commissioners, was published in the *Times*, as though it were an undoubted act. Thus, has a complexion been given to the case which it ought never to have borne, and a feeling of indignation produced in the public mind, which when once roused is not easily allayed. Every means was taken to swell the costs. Two Queen's counsel were employed, and two junior barristers; the examination and cross-examination of witnesses dragged its slow length for four days. Numerous persons were examined, on the part of the prosecution, who could prove nothing as to the point at issue, which was not, as Mr. Justice Crompton more than once observed, the sanity or insanity of Mr. Hall, but the conduct of Dr. Semple. Every one who has had experience in legal matters will know how enormous the charges of such an action must be. Serjeant Pigott rightly described it, when he said it was an attempt *to ruin* the defendant.

But the second count remained, viz., that the defendant had falsely, maliciously, and, without reasonable and probable cause, signed a certificate of the patient's lunacy under the statute. With regard to this, Mr. Justice Crompton, after the hearing of the plaintiff's case, thought that the real question was, whether the defendant had acted *bonâ fide*, and with a real belief in the truth of his certificate. That Dr. Semple did act *bona fide*, and with a real belief in the truth of what he signed, was abundantly proved and was triumphantly asserted by the finding of the jury. But in the latter part of the trial Mr. Justice Crompton altered his view of the case. He said that "it resembled, not an action for malicious prosecution without reasonable and probable cause, but rather an action for negligence in giving a certificate of insanity without taking due care and making due and proper inquiries." It was on the judge's suggestion that the word "negligently" was inserted in the second count in place of the word "maliciously," on which the plaintiff's counsel at last elected to stand. We may well ask whether the shifting his ground, and the insertion of a new word in a charge, which was, in point of fact, the introduction of a fresh cause of action, even if it can be sustained, be no proof of "negligence" on the part of a judge.

To say that this cause was prejudged by the audience and the press, is to use a very mild expression. Every assertion on the part of the defendant's witnesses, and every piece of evidence that was held to tell against Dr. Semple, was received, on the one hand, with derisive laughter—on the other, with murmurs of applause. The judge rightly said that the audience seemed to consider they were in the Divorce Court, but he made but little attempt to suppress such unseemly proceedings. It is vain to assert that a common jury would be uninfluenced by such expressions of opinion from a mass of persons, taken, for the most part, from the same rank of life as themselves. All experience of human nature contradicts it. The fact, that they have mulcted Dr. Semple in the sum of £150, although they were obliged on the evidence to admit that he had acted *bona fide*, and in a belief that he was proceeding in accordance with the provisions of the Act, equally contradicts it. The conduct of the daily press in this matter demands yet graver animadversion. The reports in the *Times* newspaper were cruelly unfair. To say nothing of the running commentary with which their reporter thought fit to introduce and garnish each day's evidence, we need only allude to one fact, viz., the imperfect *résumé* furnished by that paper of Serjeant Pigott's most able speech for the defence, as contrasted with the lengthy report of Mr. Chambers's closing speech for the prosecution.

The jury, we have observed, was a common jury. But more than this, they were dismissed every night, and reassembled every morning. From five o'clock each evening to ten the next morning they were open to every influence from without. We can fancy them, behind their counters and in bar parlours, discussing the horrors of madhouses, and listening to stories of sane persons wrongfully immured. Besides, they doubtless read the highly-spiced reports of the case in the daily papers. Was it reasonable to expect that, however strong the evidence in the defendant's favour, they would give it its due weight?

Let us now turn for a moment to the main facts of the case. What was it that Dr. Semple did, and on what grounds did he act? It was in the month of July last that a woman, whom Dr. Semple had never before seen, called on him, and requested him to examine her breast. This woman was the wife of the plaintiff. The defendant examined the breast, which he found red and swollen, as if from a blow. He asked her as to the cause, and she said it arose from a blow given her by her husband. He questioned her as to the provocation. She said there was none—that her husband had rushed in suddenly from the street upon her, and had assaulted her; and she went on to say that it was only part of a series of injuries she had been subject to during a long course of years. The woman related that she had been nearly stabbed with a knife which her husband had thrown at her; that she had been kicked in the abdomen when pregnant, and also mentioned a number of minor assaults committed on her. She also told him that her husband was in the habit of sleeping with a drawn sword by his bedside, and had frequently threatened to stab her, or any one who might come near him, with it. She ascribed his violence to the effect of a disordered mind, and ended by begging Dr. Semple to go and examine her husband, with the view of testing his mental condition. Accordingly, soon after, Dr. Semple went. When he got to the house, he saw the plaintiff in his shop. Hall asked him what he wanted. He replied that he had come to see Mrs. Hall in reference to her breast. Upon this the plaintiff said that his wife did not want a Doctor, that there was nothing the matter with her breast, and that he would not pay any bills that might be run up. He told him that Mr. Griffiths, of Gower-street, was his Medical man. He then went on to say that his wife and he lived very unhappily together, that she was always drunk, and was in the habit of going out day and night with other men; that she was wasting his property and pawning his goods, and that he had been "sold off" in consequence of her conduct three times. The appearance of Hall was excited, and his manner was rude. His eyes were restless, and the defendant, judging from these appearances, concluded that his brain was in an irritable condition. "His aspect," Dr. Semple said, "denoted irritability of the brain;" however, he at that time formed no decided opinion as to the state of the plaintiff's mind. He then left the house.

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The same day Mrs. Hall called upon Dr. Semple again. He questioned her, in professional confidence, most carefully as to the truth of the various allegations her husband had made against her, and was met by a most solemn denial on her part. She repeated her statements respecting her husband's ill-usage, and added that he was very restless, never sleeping soundly at night. She referred the defendant to Mr. and Mrs. Burge, neighbouring tradespeople in the Tottenham-court-road, and to Mr. Guy, Surgeon, of Golden-square, to confirm her story. She added that Mr. Guy had attended both her and her husband during four or five years; that it was true that Mr. Griffiths had also attended her, but that Mr. Guy knew more about her husband's conduct. Dr. Semple says that he then inquired of his wife and family, and received a general testimony from them as to the disturbances which were constantly going on at Hall's house. He then went to Burge's house, and inquired of him and his wife as to the character of Mrs. Hall. Burge said that he had known the Halls for fifteen years; that he believed Hall was labouring under delusions as to the chastity of his wife and her conduct in the business; that she had frequently been to Burge's house, and had complained that her husband had ill-used her; that he (Burge) had never seen her tipsy, or showing any indications of being drunk, and that he always thought her a first-rate woman of business; that she had frequently come to his house in an excited state, and in tears, and dressed very shabbily. He added that he did not know anything of Mr. Hall, and had no communication with him except on matters of business—that he had formed his opinion on what the wife had told him and on common report. Having got this information, which, although not worth much, as far as it went, confirmed the woman's statement, Dr. Semple proceeded to call on Mr. Guy. Of this person he knew nothing, except that he was a member of the Royal College of Surgeons, and a Licentiate of the Apothecaries' Society. Guy told him that he had attended Mrs. Hall for some years, generally for wounds and bruises caused by blows or kicks from her husband. That he (Guy) did not consider the plaintiff of sound mind, and that he had signed a certificate to that effect some years before. That he had seen the furniture, a looking-glass, bedstead, and the mantelpiece which Hall had smashed in one of his paroxysms of fury; that, as to the loose habits and drunkenness of Mrs. Hall, to the best of Guy's belief, she was neither guilty of one nor the other; and he ended by saying that Hall had even alleged that he (Guy) was too intimate with his wife. It was after this conversation that Dr. Semple made up his mind. He believed that all the allegations against Mrs. Hall were unfounded—in fact, were permanent delusions in Hall's mind, and that these, coupled with the violent outbreaks, of which he considered he had evidence, justified him in signing a certificate. Guy had a printed form ready, and accordingly Dr. Semple sat down and wrote:—

"Medical Certificate.

"Schedule (A), No. 2, secs. 4, 5, 8, 10, 11, 12, 13.

"I, the undersigned, being a Member of the Royal College of Physicians of London, and being in actual practice as a Physician, hereby certify that I, on the 28th day of July, 1862, at 45, Tottenham-court-road, in the county of Middlesex, separately from any other Medical Practitioner, personally examined Richard Hall, of Tottenham-court-road, china warehouseman, and that the said Richard Hall is a person of unsound mind, and a proper person to be taken charge of and detained under care and treatment, and that I have formed this opinion upon the following grounds—viz.:—

"1. Facts indicating insanity observed by myself:—

"He had a wild and staring look, with restless eyes, and nervous agitated manner. He represented to me that his wife was ruining himself and business, and he intimated that she was improperly associating with other men; he is evidently labouring under delusions, and he acts upon those delusions.

"2. Other facts (if any) indicating insanity communicated to me by others:—

"He is guilty of repeated acts of violence, he constantly threatens his wife, and often assaults her; he sleeps with a drawn sword by his bedside, and declares he will murder any one who approaches him, and he has often threatened to stab his wife. Robert H. Semple, 8, Torrington-square,

"Dated this 29th day of July, 1862." London.

We have already said we do not defend Dr. Semple entirely in this matter. But how many Medical men, with the evidence he had obtained, and of which he had no reason to doubt the truth, might not have acted in the same manner? It has been alleged against him, that he should have examined other members of the family of Mr. Hall, and should have made enquiries of Mr. Griffiths. It would have been better had he done so. But the Act of Parliament does not lay down the amount of evidence on which a Medical Practitioner is to form his opinion. An amount of testimony which will appear more than sufficient to one mind, will be insufficient to another. And be it remembered, that Dr. Semple's certificate was only a statement of the opinion he had honestly formed. By itself it was a useless document. It required the support of another certificate, signed by a second Medical man who had examined the patient personally and apart. It also required a declaration made by some member of the patient's family, before it could be acted on. Even then, it did not necessarily consign the alleged lunatic to an asylum; it merely authorised that he should be taken charge of, and detained under proper care and treatment, all of which might have been carried into effect in the patient's own house. Besides all this, the liberty of the subject is guarded by the law, which makes the keeper of an asylum who admits a patient on insufficient certificates liable to penalty, and by the Commissioners of Lunacy, whose business it is to examine every person newly admitted at the time of their visit. It was Dr. Semple's misfortune that he was misled by Guy. The sequel proved that Guy's whole conduct in the matter was most reprehensible. Guy never made any examination of Hall, and certified that he had seen him three weeks before, when the Act requires that not more than seven days should elapse between the interview and the time of signing the certificate. If an action were brought against either of the certifiers, it should have been brought against Guy. The prosecution knew this well, for their counsel acknowledged that proceedings would have been taken against Mr. Guy, but that they knew that the latter had not wherewith to pay the costs. With regard to the allegation, that Dr. Semple should have consulted Mr. Griffiths, it must be remembered that that gentleman stated in his evidence that he had retired from the active duties of professional life. This was well known to Dr. Semple, and may have been a reason why he did not trouble him in the matter.

It was said by the prosecution, that the fact of Dr. Semple having gone to a police-office the day after signing the certificate, and his requesting the officer whom he saw to send to Hall's house, and take charge of the sword alluded to in that document, was evidence that he felt he had acted without proper ground, and was anxious to defend himself from the consequences. That he was anxious that such material evidence should be in the hands of the proper authorities we can well conceive, but this by no means proved that he doubted the propriety of what he had done. He had not endeavoured to see the sword before signing, for the simple reason, that he knew Hall would not allow him to go into his bed-room. After Hall had been removed, he called at the house and saw the sword. That it was not such a useless implement as Hall, in his evidence, described, is best proved by the fact, that the sword was in court in the keeping of the prosecution, but was never produced.

The certificate of character obtained from Dr. Semple by Mrs. Hall, and his letter to Elliott, the proprietor of the asylum, requesting the latter to pause before he set Hall at liberty, as, in his (Dr. Semple's) opinion, Hall was a dan-

gerous lunatic, were made the subjects of much comment, as was also an interview with the Halls on September 27. All these matters, however, were disposed of by the judge in his charge, who, although he characterised them as foolish, asserted that they could not be held to prove any malice on the part of the defendant. It appears to us that, whatever may be thought of the wisdom of Dr. Semple in having written to the proprietor of the asylum in the manner he did, no better proof could be given that he had signed the certificate *bonâ fide*, really believing the man to be mad. The certificate to Mrs. Hall was simply given for the purpose of getting rid of an unfortunate applicant. "She came often to him, and he told her he could not interfere any more, but would give her that as a testimonial to show to her neighbours." In all this there might be want of prudence, but there was nothing worse.

It is needless to say anything as to the sanity of the "respectable" tradesman, or as to the quarrels between himself and his wife. There was abundant evidence that "his dominant passion was a hatred towards her." All the acts of violence proved might be only outbursts of furious passion, and his so-called delusions might or might not have any foundation. But, in how many cases where murder has been committed have acquittals, on the ground of insanity, been obtained on much slighter evidence than that which induced Dr. Semple to sign the certificate? If Dr. Webb's evidence is to be believed, supported as it was by several other witnesses, the man's language to his wife alone made it an act of charity to believe him insane.

We can only notice, in passing, the evidence of Mr. Poynter, Surgeon, who deposed, that delusions were not signs of insanity (!), and that of Mr. Elliott, the proprietor of the Lunatic Asylum, who, after receiving Hall on an illegal certificate, made amends by *fêting* him for several days at his country house. Of Mr. Guy's evidence, the less we, as Medical journalists, with the honour and reputation of our Profession at heart, reproduce, the better. It was such as might be expected from a man who would sign a certificate of insanity without examining the patient. It did Dr. Semple's cause great mischief. The only redeeming point in it was the important statement, that Dr. Semple was "very inquisitive" with regard to Mr. Hall, "and asked a great many questions."

But is this case to rest here? We believe it to be the first action at common law that has been brought against a Medical Practitioner under these circumstances. Notwithstanding the judge's ruling, it is very doubtful whether it can be maintained. At the termination of the trial, Serjeant Pigott presented a bill of exceptions; and we may state, that an opinion of an eminent Queen's counsel has already been obtained against the legality of the proceeding. Be it remembered, that the jury have stated that Dr. Semple acted *bonâ fide*, and in a full belief of the truth of the certificate he gave; that, on Dr. Semple's part, every formality required by the Lunacy Act was duly performed; that the Act nowhere specifies the amount of inquiry to be made by the Medical man before signing a certificate; and that, for his protection, it especially provides, in its 105th section—

"That if any action shall be brought against any person for anything done in pursuance of the Act, the same shall be commenced within twelve calendar months. . . *And the defendant may, at his election, plead specially on the general issue 'Not Guilty,'* and *give this Act and the special matter in evidence at any trial; and that the same was done in pursuance and by the authority of this Act.*"

The question to be proposed to the Court of Error is, whether a Medical Practitioner, acting *bona fide*, and with a full belief in the truth of his certificate, *can be* liable to an action at common law. There arises out of this case, therefore, a point which is of the highest importance to the Medical Profession. We have already stated our belief, that Dr. Semple's main error has been one of judgment, in allowing himself to draw a conclusion too hastily. But questions of lunacy are confessedly the most difficult in the whole range of Practice. The highest Medical authorities are constantly differing from each other as to the sanity or insanity of particular persons. As the law nowhere lays down the amount of evidence which is to satisfy the Medical man, or over what ground his inquiries are to range, we maintain that no Practitioner who is entrapped into signing a certificate in a doubtful case, can be safe from ruinous law proceedings if this action stands. We, therefore, feel no hesitation in appealing to the Profession to assist Dr. Semple in carrying this question to a higher court. He must not be allowed to fight his battle single-handed. It is a question which may one day affect any one of his brethren, and they are equally interested with himself in obtaining an answer.

One word more. Dr. Semple has passed through a most cruel and trying ordeal. He has been subjected to a large pecuniary loss, but he has come out of Court without a stain upon his moral character. His error, if it were one, is of the most venial description. Heavily, indeed, have its consequences fallen upon him. But there has been a drop of sweetness mingled even in his bitter cup. Throughout the case he has been supported by the countenance and sympathy of his Professional brethren. During the trial, numerous Medical men came from all parts of London, eager, if necessary, to testify to his unblemished character and his high Professional standing. Dr. Forbes Winslow most nobly attended for three entire days to watch the case in his behalf, and to give the defendant's legal advisers the benefit of his knowledge and experience. We know that the example thus set will be followed throughout the length and breadth of the land. The Profession would, indeed, be wanting in *esprit de corps* if they allowed a brother Practitioner to be overwhelmed by such a misfortune.

THE MIDDLESEX HOSPITAL.

(*From a Correspondent.*)

(Continued from page 606.)

The Medical School was established in 1835. Clinical lectures had always been given. At a General Court of Governors in 1757, a resolution was carried, "That the Physicians and Surgeons of this Hospital have liberty to *read* lectures on Physic and Surgery in the Hospital." Courses of lectures on Midwifery and on Chemistry were also given occasionally. Those on Midwifery were delivered by, amongst others, Dr. Denman and Dr. Merriman; and there is a tradition that Dr. William Hunter delivered some lectures. They were given in a very dark and dirty room in the basement of the building, but were not the less valuable for all that. At the time that University College was instituted, under the name of the University of London, there was no Hospital attached to it, and the majority of its students came to the Middlesex for their Hospital practice, as did also a large number from King's College. The foundation of these two Colleges went far towards breaking up the old Windmill-street Schools, which had previously supplied the Middlesex with pupils. When, therefore, University and King's Colleges established Hospitals of their own, the Middlesex found itself deprived of most of its students. Under these circumstances, the Governors, upon the representation of the Medical officers, resolved on founding a School in connexion with the Hospital. The resolution was come to at a General Meeting of Governors on May 7, 1835, and the School was opened, with an address, by Sir Charles Bell, on October 1 in the same year. The preparations, and other means of illustration of the lectures, were furnished by the various lecturers who had previously been engaged in teaching elsewhere. The nucleus of the present museum was, however, the beautiful collection of the

late Dr. Sweatman, the first lecturer on Midwifery, which was purchased, after his death, by the Hospital, for 350 guineas. The School buildings have, since that time, more than doubled their original area. The present museum is about eighty feet long, and contains a valuable collection of upwards of 2000 pathological, physiological, and natural history specimens, many of them the work of Mr. Flower, the present conservator of the Hunterian Museum. A handsome library has been added, and many conveniences for teaching have been provided, so as to keep the School in the highest working condition. The Governors of the Hospital have always shown a most liberal spirit in meeting the views of the Medical officers and lecturers, and to this is greatly due the present condition of the School.

When the School was first established, its students were recruited from the Great and Little Windmill-street Schools, and many were brought by the personal interest and reputation of those who had previously lectured in them. The names of Sir Charles Bell, of Arnott, and of Copland, no doubt served to attract very many. After a time, however, the School fell off in numbers and reputation, and, at one time, about ten or twelve years after its foundation, the entry numbered only three students. At the time of the reconstruction of the Hospital, strenuous efforts were made to improve the character of the School, and among the most efficient of these was the establishment of a system of discipline to ensure the proper attendance and working of the students. So far from this proving a means of deterring students from coming to the School, as was feared by some of the more timid, the result has been a progressive advance in the number of students, and in the reputation of the School. For many years the regular attendance of students has been strictly enforced, and frequent written examinations have been held in each Session. Methods have been adopted, by which all the students may become clinical clerks and dressers; while the large number of free appointments in the Hospital serves as an additional stimulus to their exertions.

The prize system, which has become so general that it could now with difficulty be put a stop to, has for some years been so far modified at the Middlesex as to take away some of its evils, and, in some respects, to prove really beneficial. The prizes for the two first Sessions are given, not for proficiency in any individual class, but for superiority in all; and the test is not a single terminal examination, but a series of written examinations held several times in each session. The student is thus induced to give a fair amount of work to every subject on which he has to attend lectures, instead of keeping himself to one or two favourite ones; and he must work continuously throughout the whole session, instead of cramming at the end of it. The third years, prizes are given exclusively for clinical cases and observations. The object of the managing body of the School has been to train the students to regular work on every subject required by the curriculum, but with especial reference to practical clinical working. With this view, the resident clinical assistantships have been instituted, and the dresserships and clinical clerkships regularly apportioned to the students; and, with the same view, the clinical lectures have been increased in number, six being given in each week during the summer and winter sessions, of which one is on Diseases of Women, and one on Ophthalmic Surgery. It is, perhaps, a pity that, with a great amount of clinical materials at their command, the Medical men have been so very backward in giving the results of their experience to the world.

The teaching at the Hospital may be considered rather eclectic than traditionary. The School has not yet been long enough in a thriving condition to furnish candidates for the appointments of Physician and Surgeon which have fallen vacant of late years; and, in many respects, this is a great advantage, as it has enabled the Governors to select their officers entirely on the ground of their professional and general character, unprejudiced by the claim which education at their own institution would give to an aspirant. At the present moment, there are on the staff Medical officers who have received their education and gained distinction at St. Bartholomew's, St. George's, St. Thomas's, King's and University Colleges, Edinburgh, Glasgow, and foreign Universities. Hence, the opinions and practice of various Schools have been brought into juxtaposition and comparison with one another, to the manifest uprooting of any dogmatic tendencies which the continued in-and-in teaching at one School is apt to engender.

Amongst the early names of its Medical Officers, the Middlesex numbers many who were of great repute in their day, some of whom have left their impress on the Profession or on the Hospital. Sir Lucas Pepys, Sir Francis Milman, Dr. John Latham, and Sir Henry Halford, were Physicians to the Hospital; all of them Presidents of the College of Physicians. Dr. P. M. Latham, than whom no Physician has ever deserved or received more universal respect, was elected to the Hospital nearly fifty years ago, and left it ten years afterwards, to exert his Medical skill and unrivalled excellence as a clinical teacher in the then far more extended sphere of St. Bartholomew's. Dr. Southey, too, was one of its Physicians; and though last, not least, Latham's chief disciple, Dr. Watson, who owed to his long career at the Middlesex the stores of Medical knowledge which formed the groundwork of those lectures which will ever remain as models of pure diction and sound instruction. In the obstetric art the names of Denman and Merriman will never be forgotten; nor should that of West be omitted, though happily not as belonging to the past. And, amongst the Surgeons, whilst many are found who, in their day, occupied respectable positions, none, perhaps, will have their names remembered hereafter, save Sir Charles Bell, Mr. Herbert Mayo, and Mr. Arnott. Sir Charles Bell will always be remembered as one of the greatest ornaments of the Profession; but it was by those who knew him in the Hospital that his Surgical skill was best appreciated. A pupil of his celebrated brother, John Bell, he was imbued with that love for his Profession which so eminently distinguished his master. Out of the Hospital, his physiological reputation in some degree overshadowed that which was equally due to him as a Surgeon. It was supposed that one who was so enthusiastic a follower of the scientific element of the Profession, could not devote his talents to the more practical one. And, perhaps, a certain indifference to the opinion of others fostered this error. Perhaps, too, he was apt to look more to the broad, philosophic inductions which might be derived from his cases, than to the small points of practical detail, an attention to which goes so far towards making the successful Practitioner. The most beautiful operator of his day, he shrank from operation where it could possibly be avoided; always upholding the Hunterian maxim, that operations were the confessions of imperfect knowledge. A perfect anatomist, as well as a skilful operator, he never undertook a serious operation without careful consideration of every step, and every possible difficulty. His kind and tender tone towards his patients had in it something almost feminine. No one could ever forget the soothing accents with which he spoke to them, and which seemed almost to ease their pain even in the midst of severe operations, and in their turn they idolised him. As a teacher, he was without a rival; and to those of the students who sought information from him, he was unreservedly kind and communicative, unless some gross ignorance was shown, and then he could be uncomfortably caustic. He was, perhaps, too independent for his own interests. An anecdote is related of him, which illustrates his character in this point. It is said that, when he was a very young man, a court Physician wished to serve him; and, having directed that one

of the princesses should be bled, recommended that Mr. Bell should be sent for to perform the operation; but his curt response to the messenger—"Hoot, man, let her send for her Apothecary," kept his feet from passing the threshold of the court for many a year. But there was no man in the Profession whose manners and acquirements would have more adorned a court. One defect he had, which was fostered, if it did not arise, from circumstances amongst which he was placed, and that was, a certain intolerance of opposition, and a tenacity of opinion, which led those who only knew the outside to wonder at the affectionate regard which was felt for him by those who knew him intimately. His brother-in-law, John Shaw, was also a Surgeon to the Hospital, and had already distinguished himself by his prosecution of the "Physiological Enquiries," which were engaging the attention of Sir Charles. His career was cut short before he could give much more than a promise of the excellence as a Surgeon which all who knew him had predicted.

In striking contrast to Sir Charles Bell was Herbert Mayo, whose career might point a moral.—A pupil of Bell's; quick, ardent, imaginative, and passionately desirous of fame, come how it might, he was wanting in those high moral qualities which shone so conspicuously in his master. From being a pupil he soon strove to be a rival. It is needless to revert to events on which the physiological world has long formed its judgment. They certainly gave a tone and colouring to Sir Charles Bell's sentiments and demeanour, and were the cause of bitter feelings of partisanship amongst those who were at that time about the Hospital. Mayo was as reckless and daring as an operator as Bell was cautious and careful. He was a skilful anatomist, and could be a good operator, but the moment he came into the theatre his desire of display led him to make the most serious mistakes. He appeared utterly indifferent to the sufferings of his patients; at the same time he had a quick, off-hand manner with them which led them to trust, and even to like him. Among the pupils, too, even those who saw his faults, and were forced to withhold their respect, could not help liking a certain appearance of *bonhommie* which he seemed at times to possess, and a somewhat malicious, though amusing, raillery, which was far more common with him. But he was very capricious, and those who one day would appear to be in great favour with him, might the next day experience an insulting and sarcastic demeanour difficult to bear. He lost the opportunity of being one of the leading Surgeons in London, and if he had faults—neither slight nor few—he paid a heavy penalty for them. No one could help admiring the "pluck" with which he bore up under overwhelming trials. His character was amusingly shown in a letter which he wrote to his colleagues when, after long absence from his duties as a lecturer through broken health, which it was clear to every one could never be restored, they sent to him to ask his views as to the Surgical chair:

"Sir,—In reply to your note I have nothing to suggest to the Committee of Lecturers, and only regret that I am at present too well to give up my lectures, too crippled to do the physical part of my office efficiently, and I can hardly fail to get worse or better before long.—I have the honour to be, &c. "H. Mayo."

At this time the arrangements for the session were in progress, and he had not given a lecture for more than twelve months. He resigned not long afterwards.

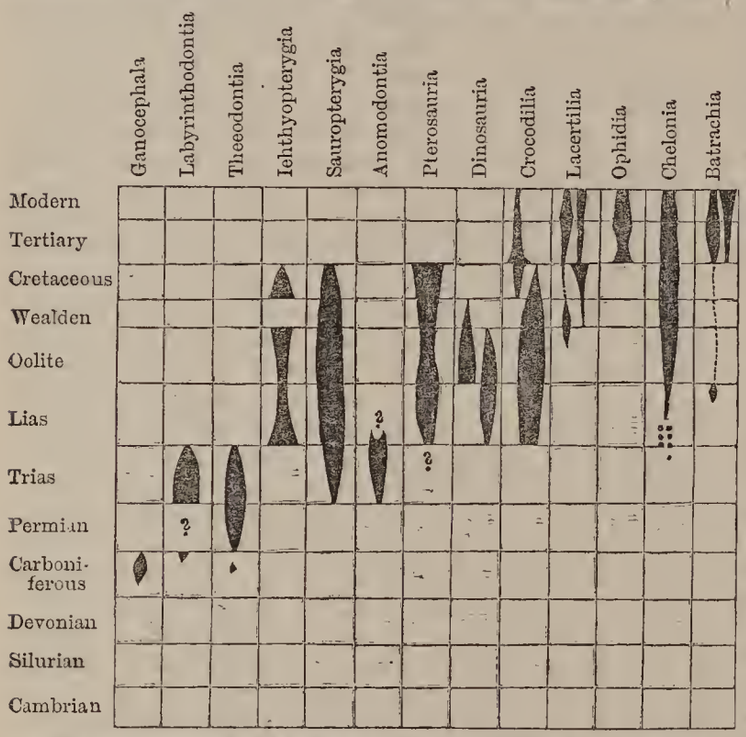
Of Mr. Arnott, who, although no longer a Surgeon to the Hospital, is still amongst us, more must not be said than that his secession was a great loss to the Hospital and School. A more able Surgeon, in the best sense of the term, and a more conscientious officer, never was appointed to such a post. He left the Hospital just as the School was taking that position which it will maintain so long as those concerned in its management, and who must not be mentioned in this notice, honestly endeavour to perform the duties imposed on them to the utmost of their ability.

THE WEEK.

PROFESSOR OWEN'S LECTURES ON REPTILES.

PROFESSOR OWEN's last lecture at the London Institution was devoted to the consideration of the fossil orders *Dinosauria* and *Pterosauria*. In the order *Dinosauria*, the cervical and anterior dorsal vertebræ have par- and diapophyses, articulating with bifurcate ribs; dorsal vertebræ with a neural platform, sacral vertebræ exceeding two in number; body supported on four strong unguiculate limbs. The *Scelidosaurus*, which had been discovered in the lower lias of Charmouth, and which was the most perfect skeleton hitherto obtained of any terrestrial herbivorous reptile, exhibited a nearly complete dentition, of which the upper pass outside the under teeth when the mouth is closed. They are subequal, and implanted in close-set sockets, so that the expanded crowns slightly overlap each other. There are four digits to the hind foot, with broad, depressed, obtuse claw-bones; the number of bones, including the metatarsal, in each toe, is respectively three, four, five, and six; the fifth, or outermost toe, is reduced to a rudiment of the metatarsal. The *Iguanodon*, which has been found in the Wealden and Neocomian formations, had been rendered one of the best-known fossil reptiles by the labours of the late Dr. Mantell. It was herbivorous; the approximate total length of the animal being thirty-five feet, the greatest girth of the trunk twenty feet, the length of the head three feet six inches, the length of the tail fifteen feet six inches. Femora, four feet in length, showing the third trochanter, have been found. The sacrum included five, and in old animals six vertebræ. There were only three well-developed toes on the hind foot. The *Hylæosaurus*, which was, so far as our present knowledge extends, confined to the Wealden strata, probably attained a length of twenty-five feet, and was provided with a powerful series of enormous bony spines, which supported a strong defensive crest along the back. The teeth indicate that its diet was either mixed or vegetable. The *Megalosaurus*, the most powerful carnassial Dinosaur which preyed upon the above phytophagous forms, was thirty feetin length. Its compressed, trenchant, sabre-shaped teeth, with a backward curvature, distinguished it from any other reptile. Its remains have been found in strata extending from the lower oolites to the Stonesfield slate, Cornbrash, Bath oolite, Wealden, and Purbeck strata. The order *Pterosauria* was characterised by having the pectoral members, by the elongation of the antibrachium, and fifth digit adapted for flight. The vertebræ were procœlian; those of the neck very large; those of the pelvis small. Most of the bones pneumatic. Head large; jaws long, and armed with teeth. The skull is lightened by large vacuities. The body must have been dragged along the ground, like that of a bat. The *Pterosauria* may have been good swimmers as well as flyers. In the genus *Dimorphodon*, the teeth are of two kinds: a few at the premaxillary and premandibular part of the jaws are long, large, acute, the base being full and elliptical; behind these is a close-set row of short, compressed, very small, lancet-shaped teeth. The expanse of wing in the *Dimorphodon macronyx*, from the lower lias of Lyme Regis, reached about four feet. In the restricted genus *Pterodactylus* the jaws are provided with teeth to their extremities; all the teeth are long, slender, sharp-pointed, and set well apart. The tail is very short. Many evidences of this genus are known to us, especially from the lithographic stones of Bavaria, especially near Pappenheim, whence have been obtained specimens in which even the delicate sclerotic eye-plates, as well as the ossified bone-tendons, have been preserved. In the *Pterodactyles*, as well as in other *Pterosauria*, the antibrachial bones are excessively elongated, especially the metacarpal and phalangeal bones of the fifth or outermost digit, the last phalanx of which terminates in a point. The other fingers were of more ordinary length and size, and terminated by claws. The reptilian characters hold good in the progres-

sive phalangeal increment from the first to the fourth digit. The pectoral process of the humerus is larger than in birds. The coracoid and scapula are long and narrow, but strong. The sternum had a short but strong and deep keel, continued forward in advance of the coracoid cavities much further than in birds, the body of the bone expanding into a semicircular, slightly convex disc, separated by a construction from the narrow keeled part, supporting the coracoids. The vertebræ of the neck are few, but large and strong; those of the back are smaller, growing less to the tail. There are sometimes seventeen dorsal vertebræ, and from three to seven sacral ones, to which is attached a small and weak pelvis. In the genus *Ramphorhynchus* of Von Meyer, the fore part of each jaw is without teeth, and may have been encased by a horny beak; but behind the edentulous production there are four or five large and long teeth, followed by several smaller ones. The tail is long, stiff, and slender. Evidences of this genus, confined to the Bavarian lithographic slates, have been recently acquired for the British Museum, from the collection of M. Häberlein, of Pappenheim, lately purchased. Professor Owen announced that, on the 21st of January, he would give an account of the fossil long-tailed bird from the same deposits (*Archæopteryx macrurus*) which has been recently described in the *Medical Times and Gazette*. The annexed diagram



was offered to illustrate the relative increase of the various orders of reptiles during the earth's history. In the horizontal spaces a concise view is given of the geological relations, or distribution in time, of the several orders of reptiles in the vertical columns. The *Ganocephala* began, culminated, and ended in the carboniferous period. The *Labyrinthodontia* attain their greatest development in triassic rocks. *Thecodontia*, possibly represented in the coal, culminate in the Permian. *Ichthyopterygia* range through all the upper mesozoic strata, with the exception of the Wealden. *Sauropterygia*, commencing in the trias, are not found above the chalk. *Anomodontia* are virtually characteristic of the triassic rocks. The aërial *Pterosauria* of the mesozoic strata culminate in the Solenhofen (oolitic) beds, and in the chalk. *Dinosauria* of herbivorous organisation are represented in the lower lias, but attain their maximum development in the oolite and Wealden. Carnivorous Dinosaurs (*e.g.*, *Megalosaurus*) range through liassic and oolitic strata. The amphicœlian and opisthocœlian *Crocodilia* are found in the upper mesozoic, their places being supplied in the Cainozoic strata by the procœlian forms. Pleurodont lizards are found in the oolite and Wealden; acrodonts in the Wealden and cretaceous. Both acrodont and pleurodont forms exist at the present day. Serpents are not found beneath the Cainozoic strata. *Chelonia* range through the mesozoic ages from the lias upwards, and are represented by footprints in triassic strata. Urodelous *Batrachia* are found in the lias, but, with the *Anoura*, reach their culminant development in the tertiary.

DR. RADCLIFFE'S LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

During the week Dr. Radcliffe has delivered the fourth and fifth of these lectures. The fourth lecture was devoted to the consideration of matters which would easily have furnished topics for many lectures. Chiefly, the lecturer occupied himself with showing that the action of the blood and "nervous influence" in muscular motion, is not to cause contraction by supplying stimuli to a vital property of contractility, but rather one which antagonises contraction. The argument was crowded with facts, many of them new, nearly all so new as not yet to have found their way into the text-books of Physiology. Then, after having disposed of these matters, and shown, in addition, that no different conclusion is to be drawn respecting the action of the other supposed stimuli of contraction, Dr. Radcliffe proceeded to lay down the theory of muscular motion, to which he was led by the facts and considerations with which he had had to deal, and, at the same time, to dispose of certain apparent objections. The substance of the theory is this:—1. That the elongated or relaxed condition of living muscle is nothing more than the necessary result of the electrical condition, in which molecules of living muscle are always found to be when left to themselves, for this condition is one which obliges these molecules to repel each other in the required direction. 2. That rigor mortis is nothing more than the necessary result of the permanent action of the attractive force which is inherent in the physical constitution of the muscular molecules, this attractive action having come into play in consequence of the final cessation of the antagonistic electrical action which kept these molecules apart in the relaxed or elongated condition of living muscle. 3. That ordinary muscular contraction is nothing more than the necessary result of the momentary action of the attractive force which is inherent in the physical constitution of the muscular molecules, this action having been brought into play in consequence of the momentary cessation of the antagonistic electrical action which belongs to living muscle. 4. That the action which produces contraction in muscle, through a nerve, is one which involves a given expenditure of nerve-electricity; and that this expenditure disturbs the electric equilibrium along the whole course of the nerve, and necessitates a movement of electricity along the whole course of the nerve, in order to re-establish the lost equilibrium; that this movement of electricity gives rise to the development of instantaneous currents of high tension electricity,—Faradaic currents, as the lecturer sometimes called them, in, around, and along the nerve, analogous to the discharge of the torpedo, and that these instantaneous or Faradaic currents produced contraction in the muscular fibres lying near the nerves, and within their range of action, not by stimulating into action a vital property of irritability, but by freeing the muscular fibres from the electrical state which antagonises contraction, and so leaving them for a moment in the state in which they are left permanently in rigor mortis. 5. That the action which produces contraction in muscle, when that action is applied directly to the muscle itself, is essentially of the same kind as that which acts through the instrumentality of the nerves, namely, this: that the action involves a given expenditure of muscular electricity; that this expenditure disturbs the electrical equilibrium of the fibres acted upon, and necessitates a movement of electricity in these fibres in order to re-establish the equilibrium; that this movement of electricity determines the development of instantaneous or Faradaic currents in and around these

fibres; and that the torpedo-like shock of these currents produces contraction in these, and in the fibres within range, in the manner explained in the last proposition. This theory, in short, is one which entirely dispenses with the aid of a vital property of contractility, the transitory contractions, which are ascribed to the variety of contractility called *irritability*, being referred to transient lulls in that electrical action of living muscle which antagonises contraction; the persistent contraction of rigor mortis, which is ascribed to the action of the variety of contractility called *tonicity*, being supposed to derive its characteristic persistency from the fact, that the electric action of living muscle which antagonises contraction is then at an end. Dr. Radcliffe insisted upon the applicability of his theory to rigor mortis (which is utterly unintelligible upon the current theory of muscular motion) as a point of great importance—as an *experimentum crucis* in its favour. He also spoke at some length upon the phenomena of this form of contraction, showing, in particular, how muscles pass out of a state of rigor mortis, and recover their lost electricity and vitality when blood is injected into their vessels, and how muscles may be made to lose their electricity and vitality, and pass at once into a state of rigor mortis, when, as was shown after the lecture, they are subjected to the action of the shocks of a Rumkorff's coil. Besides all this, Dr. Radcliffe maintained, and showed, as far as he could show in a few moments, that this mode of explaining muscular motion gave the key to the explanation of the rhythm in the different forms of rhythmical muscular motion. The lecture ended with the narration of certain experiments, which go to prove that the action of a sentient nerve in sensation is precisely the same as that of a motor nerve in muscular motion—that the law of action in the two cases was precisely the same, and purely physical. These experiments, the lecturer maintained, furnished conclusive proof of this, namely, that the action which produces sensation in a sentient nerve is one which involves a given expenditure of nerve-electricity; that this expenditure necessitates a movement of electricity along the whole course of the nerve, in order to restore the disturbed equilibrium; that this movement of electricity determines the development of instantaneous or Faradaic currents in, around, and along the nerve, analogous to the discharge of a torpedo; and that the shock of these instantaneous or Faradaic currents causes sensation if the proper part of the sensorium with which the nerve is connected is acted upon by them—if, that is to say, certain ganglionic cells of the sensorium happen to come within their range. Not enough was said here, but the lecturer said he should recall these matters when speaking on the subject of pain; and so our curiosity, which was only just whetted, may eventually be more satisfied upon these points than it happens to be at present. The fifth lecture was the commencement of the pathological portion of the course, the subject being simple, ordinary idiopathic epilepsy. The lecturer described the phenomena of the disease so far as to bring out the more salient facts, and then proceeded to educe its pathology from a consideration of the state of the respiration, circulation, and innervation. He showed that the state during the paroxysm is one of suffocation, and he reasoned thus: if, as must needs be, the functional activity of a nervous centre is directly related to the supply of *red* blood to that centre, then the action of each and all of the nervous centres of the body must rapidly become weaker and weaker during the convulsion, seeing that at this time the process of suffocation has suspended the normal supply of red blood to these centres. In particular, the lecturer spoke of the condition of the circulation, and showed that the full and strong pulse and the throbbing heart which attend upon the convulsion do not show that the arteries are at this time receiving an increased quantity of red blood, and that some nervous centre is thrown into a state of increased nervous activity in consequence. He showed, indeed, that this is the natural state of things in suffocation,—that the pulse is full, and the left side of the heart is throbbing with *black* blood,—that, in fact, this pulse is the natural pulse of sudden apnœa—the *apnœal pulse*, in fact. Certain forgotten experiments by the late Dr. John Reid, and some recent experiments by Professor Draper the younger, of New York, were cited, which leave no reasonable doubt on this point; and which, therefore, entirely contradict the commonly-received opinion, that the left side of the heart and the arteries are comparatively empty of blood in suffocation, and that the right side of the heart and the veins were overloaded, at this time, almost to bursting. The lecture ended with some interesting remarks on treatment; and here Dr. Radcliffe stated that, after properly regulating the diet and habits, he had had much reason to be satisfied with the effects of cod-liver oil and phosphorus given with the view of supplying what may, after what has been said, be readily supposed to be wanting in the nerve tissues, for oil and phosphorus are most important ingredients of these tissues. He also stated this,—that he had much reason to be satisfied with the effects of phosphorus, given as a stimulant where stimulation was necessary, and that the ethereal tincture was the most convenient form for administering the medicine.

THE PRINCESS ALICE'S PHYSICIANS.

We learn that Dr. Arthur Farre is appointed, in conjunction with Sir C. Locock, to attend the Princess Alice in her confinement, which is expected to take place at Windsor next April. Dr. Arthur Farre's appointment will be stamped by the Profession with universal approbation. He has earned his reputation by study, hard work as a lecturer and clinical teacher, and by an immense experience amongst the patients of his Hospital. His article on the "Uterus," in "Todd's Cyclopædia," is the standard authority on the subject, and he enjoys a considerable reputation as a naturalist.

NEW METHODS OF DISCOVERING THE PRESENCE OF A BALL OR OTHER METALLIC BODY WITHIN A WOUND—NÉLATON'S PORCELAIN PROBE—FAVRE'S GALVANIC PROBE.

The difficulties which have attended the diagnosis of General Garibaldi's wound, and the contradictions of Surgical opinion, have had the good effect of stimulating ingenuity for the devising of new and more certain methods of physical exploration. It will be recollected that the positive opinion of the presence of the ball in Garibaldi's wound given by M. Nélaton was based upon the dull character of the sound elicited when the probe struck against the hard substance at the bottom, which was very different in his experience from the clear sound elicited from a piece of necrosed bone under similar circumstances, and also upon the sensation imparted to the hand, which bore no resemblance to that imparted by the rough surface of a carious bone. On his return to Paris, he devised, in conjunction with M. Em. Rousseau, a contrivance by which a portion of the ball might actually be brought away, so as to convince those who differed from him in opinion. This instrument consisted of a probe, furnished at the extremity with a little sphere of unglazed porcelain or biscuit-ware, about the size of a small pea. On bringing this sphere in contact with a leaden ball, and exercising a little rotatory friction, it acquires a stain of the metal, which subsequent contact of the soft parts and morbid secretions fails to remove. There is this additional advantage, that the portion of metal thus removed may be dissolved off, and made the subject of chemical tests. It was by the use of this little instrument that Dr. Zanetti convinced himself of the presence of the ball with sufficient certainty to lead to a determination to extract it. The credit of another contrivance, more complicated but not less ingenious, is due to the fertile brain of M. Favre, Professor of Chemistry to the Faculty of Sciences of Marseilles.

The principle involved is the different conducting power for electricity between a metallic substance, on the one hand, and the fluids and tissues of the body, on the other. Thus it happens, that if the conducting wire of a feeble galvanic circuit connected with a galvanometer be broken, and a bullet or other metallic body be interposed, on the completion of the circuit the needle will be strongly deflected. This would not be the case on interposing the ordinary tissues of the body. With the assistance of M. Favre, Dr. Fontan, a military Surgeon at Marseilles, has made experiments to test the efficiency of the plan proposed by the former. The apparatus used was as follows:—1. A Smee's battery of a single pair of plates, so feeble as to be unable to produce any sensible amount of electrolysis with the animal tissues. 2. A galvanometer. 3. A probe, formed in the following manner: it consisted of two parts, one of which is received into the other, which forms thus an outer casing. The internal portion, or galvanic portion, is a straight metallic probe, through the length of which pass, packed in silk, two metallic wires, each terminating in a steel needle, and isolated and firmly fixed beyond the extremity of the probe by means of a little cone of ivory. These wires are intended to conduct the galvanic current, the galvanometer being placed in the course of the intended circuit. For this inner probe, there is provided an external metallic casing, so constructed as to permit the galvanic probe to be slid within it, and perforated at its extremity with two holes, through which the needle-points of the conducting wires can be protruded. There are various little arrangements of grooves, slits, and a screw to ensure accuracy of adaptation between the galvanic probe and its case. In using the instrument, the internal probe is retracted and fixed by the little screw, and the instrument is then employed in the ordinary way as a probe. On the solid substance being arrived at, the screw is loosened, the needle-points protruded, and brought into contact with it, by sliding down the internal probe. If the substance be metallic the circuit is established, and the galvanometer deflected. The first experiments were made with wires unprovided with needle-points, the addition of which were found essential to success, inasmuch as they readily penetrated any soft tissues or adventitious substances, pieces of clothing, leather, etc., which might chance to be interposed, and also overcame the difficulty likely to result from oxidation of the surface of the metallic substance, etc. The use of a little friction with the point of the sound, or a gentle percussion upon it, never failed to establish the galvanic current. M. Fontan suggests that, by modification of this probe, the principle involved might be applied to other purposes of diagnosis, as where the presence of metallic bodies in the canals or mucous cavities of the body was to be detected.

REVIEWS.

The Common Sense of the Water Cure; a Popular Description of Life and Treatment in a Hydropathic Establishment. By Captain J. H. Lukes, late 61st Regiment, and the North Durham Militia. London: Hardwicke. Pp. 228.

We wonder what the gallant Captain would say to us if we were to write a treatise upon the Common Sense of the Art of Fortification, of Regimental Manœuvring, or even (and this really is a Medical question) of the dress and equipment of the soldier? How indignant he would be! Certainly, some very pleasant people can be monstrously conceited; and, judging by his book, Captain Lukes seems to be a very jolly good fellow, and we have no doubt we should be capital friends over the dinner-table.

The Sulphurous Bath, at Sandefjord, in Norway. By Drs. Ebbeson and Hörbye, Physicians at the Bath. Christiania: Werner and Co. Pp. 49.

Now that Norwegian tours are somewhat the fashion, probably this *brochure* will be read with some interest. Sandefjord is a sea-side place, said to be surrounded by a beautiful country, and very agreeable as a summer residence. The authors give all the information likely to be required by intending visitors.

Case of Rupture of the Uterus, in which Recovery took place. By John Augustus Byrne, M.D., T.C.D., Ex-Assistant-Physician to the Rotunda Lying-in Hospital. Dublin: Falconer. Pp. 10.

Dr. Byrne writes:—"With regard to the recovery of patients from this accident, the tables on this head are not very encouraging: taking the number of cases recorded by Dr. Churchill, which amount to 80, and adding those related by Drs. Sinclair and Johnston, 17, this case 1, total 88, we have only 11 recoveries, or a little less than 1 in 9. . . . We know how to treat this accident better now than formerly. We know the beneficial effects of large doses of opium, and the advantages of the non-depleting method of treatment."—P. 10.

Lectures on the Laws of Health, and their Correspondence with Revealed Truth. Delivered before the Manchester City Missionaries. By H. T. Browne, M.D. Lond., Physician to the Manchester Royal Infirmary, etc. Manchester: Kelly. Pp. 74.

The author of these lectures is a believer in the *verbal* inspiration of the Holy Scriptures, so that, in place of showing the correspondence of sanitary laws with the general scheme of God's dealings with men, he contents himself with the quotation of a variety of individual texts. His illustrations are sometimes ludicrously far-fetched; but we are not disposed to quarrel with him on this account, since the general tenor of the lectures is such as cannot fail to render them useful to the class of readers for whom they appear designed.

General and Descriptive Anatomy of the Domestic Animals. By John Gamgee, Principal of the new Veterinary College, Edinburgh, and James Law, Professor in the new Veterinary College, Edinburgh. Vol. I., Part 2. Articulations and the Muscular System. With numerous illustrations. Edinburgh: Jack. Pp. 466.

Professor Gamgee is a most industrious and persevering teacher. It is not long since we had occasion to review a work of his on Practical Veterinary Medicine; and here is a work on Anatomy, which is clearly written, full in detail, and most excellent in arrangement. We have no doubt that it will be the standard text book of students of the Veterinary art.

Medical Statistics of Life Assurance; being an Inquiry into the Causes of Death among the Members of the Scottish Amicable Life Assurance Society, from 1826 *till* 1860; *and a Comparative Analysis of the Diseases which have proved Fatal among the Assured in several Societies, and among the General Population of England; with Remarks on the Medical Selection of Lives for Assurance.* By J. G. Fleming, M.D., Fellow of the Faculty of Physicians and Surgeons, Medical Adviser to the Directors of the Scottish Amicable Life Assurance Society. Glasgow: Murray and Son. Pp. 75.

The above title sufficiently explains the scope of the work. It is a most valuable contribution to Medical statistics.

The Mammary Signs of Pregnancy, and of Recent Delivery. By J. Lumley Earle, M.D., Resident Physician Accoucheur to the Birmingham General Dispensary, etc. London: Davies. Pp. 34.

This paper, reprinted, with additions, from the *London Medical Review*, is deserving of perusal, and is likely to be useful. There are several plates, a little exaggerated, perhaps, in the colouring.

Manuals of the Duties of Poor-law Officers: Medical Officers. Second Edition. By Wm. Golden Lumley, Esq., Barrister-at-law, Assistant-Secretary to the Poor-law Board. London: Knight and Co. Pp. 112.

This should be in the hands of every Union Medical Officer. To consult it occasionally may save him from some unpleasant difficulties, and not a few unseemly and undignified disputes.

FOREIGN CORRESPONDENCE.

AUSTRIA.

Carlsbad, November 22.

THE CONGRESS OF GERMAN NATURALISTS AND PHYSICIANS.

I to-day continue my report on the proceedings of the annual Congress of German Naturalists and Physicians. In the section for anatomy and physiology, Professor Krause, of Göttingen, spoke on the function of Vater's (or Pacini's) corpuscles. He had, by means of micrometric measurements, succeeded in showing that the length of the whole of any such corpuscle and its internal capsule is altered, if a piece of the mesenterium taken from the bowel of a cat, containing such corpuscles, is alternately contracted and relaxed in the longitudinal direction of the corpuscle. These corpuscles, which have a nearly ellipsoid shape, consist of numerous capsules concentrically arranged, and are separated from each other by fluid: if, therefore, traction is exerted upon the external capsule, and in the longitudinal direction of the corpuscle, the shape of this latter will deviate still more from that of a globe, whereby pressure upon the intercapsular fluid is caused; the second capsule, if closely connected with the outer one, will act just as this latter, and so on. From this it would appear that Vater's corpuscles in the mesentery of the cat may serve to indicate an increased accumulation of matter in different parts of the intestinal tube, to the sensorium of the animal.

Professor Czermak, fresh from London, then showed Mr. Peters' microscopic writing, and gave a description of the machine, which is known to your readers, from the International Exhibition.

In the sub-section for diseases of women and children, Professor Löschner, of Prague, spoke on the relations between diseases of children in lying-in institutions, and puerperal fever, as well as on the state of infants thrown on the parish. It results, from his experience, that if puerperal fever breaks out in a lying-in institution the children there fall ill in proportion; that as soon as the fever ceases the children get better; and, that if it increases, the rate of mortality amongst infants is also augmented. He considers large lying-in institutions deleterious both for mothers and children, and is in favour of small Hospitals, which should, if possible, be situated in the country.

In the section for Medicine, Dr. Röser, of Athens, spoke on an infallible prophylactic treatment of hydrophobia, which has long been used by the monks in a Greek convent, and after which the speaker had never seen a case of hydrophobia follow. The chief remedy is the external and internal application of the *mylabris*, the medicinal properties of which very much resemble those of cantharides; at the same time, however, the *Cynanchum erectum*, the physiological properties of which are still unknown, is internally administered. The proceeding is as follows:—The patient is put partially under the influence of chloroform, after which the wound is cauterised with the ferrum candens; an ointment is then placed on the wound, which consists of half an ounce of mercurial ointment and half a drachm of *Mylabris Græca* or *variegata*. At the same time, a decoction of the root of *Cynanchum erectum* (half an ounce to two pounds of water), and a powder of $\frac{1}{12}$th to $\frac{1}{24}$th of a grain of mylabris, with sugar, is given internally for forty days successively; and very little nitrogenous food is allowed. A discussion followed the reading of this paper, and all speakers agreed that the cauterisation of the wound was of the greatest importance as a prophylactic remedy. Dr. Dworsky, of Venice, said that there was no specific remedy for hydrophobia, but that the destruction of Marochetti's vesicles by means of the actual cautery, and the internal administration of a decoction of *Taxus baccata* and *Lycopodium clavatum*, was worth a trial. Dr. Husemann, of Detmold, said that statistical proofs were indispensable for arriving at a satisfactory conclusion with regard to the efficacy of remedies for the disease in question; and that statistics, as commonly presented, were of no value whatever. In the principality of Lippe, besides powerful cauterisation of the wound, the remedy of a celebrated quack-doctor, Schmiedeskamp, and which chiefly consisted of *Anagallis arvensis*, *Italium aparine*, and *Artemisia vulgaris*, boiled with beer, had been much employed. Dr. Stamm, of Berlin, and Dr. Bardorf, of Frankfort, considered muzzles the best prophylactic remedy. Dr. Eulenburg, of Berlin, asked Dr. Röser whether the Greek remedy had proved successful where the disease had broken out; but no answer was given to the question.

Dr. Müller, of Hanover, then read a paper on diabetes, with details of thirty-one cases observed by him: twenty-three of the patients were men, and only eight women. Amongst the causes, masturbation was most frequent. Twelve of the patients died, nine of them rapidly, of tubercular disease, and three of Bright's disease. As regards the treatment, animal food and gluten had proved very unsatisfactory, and a mixed diet was far preferable. Tannine, either alone, or with aloe and rheum, gave good results, and small doses of opium at night were advisable. The use of the thermal springs of Carlsbad produced amelioration in every one of the cases; but the benefit was not permanent: in one case it lasted for nineteen months, in another for ten months. The largest quantity of urine observed amounted to nineteen and a-half quarts, the largest quantity of sugar to ten per cent.; the highest specific gravity was 1·058. In five cases there was amblyopia and morbus Brightii. An animated discussion followed the reading of this paper, and several of the Carlsbad Physicians communicated their experience on the use of the waters of this place. Professor Seegen said that he had treated more than forty cases of diabetes with Carlsbad water, that there had been a diminished amount of urine and sugar, and the weight of the body had become augmented, but a complete cure had never been effected. Most of the patients in question used the Carlsbad treatment for several years successively, and each time with benefit. The improvement was generally rapid, and lasted for a considerable time. Dr. Fleckles said that, if diabetes was complicated with anæmia, the use of Franzensbad, Pyrmont, or Spa, was advisable after a course of the Carlsbad treatment.

Dr. Husemann, of Detmold, gave an account of a new epidemic disease, which had been observed by him in August last, and was caused by eating the flesh of a diseased cow. About 150 persons were affected. The epidemic was novel in etiology as well as with regard to the symptoms. There were three forms of it:—one was very mild, the patients suffering from diarrhœa without fever; another was more severe; there being rigors, febrile symptoms, vomiting, diarrhœa, cerebral symptoms, and violent pains in the abdomen, with great sensitiveness to pressure; the symptoms continued for about a week. The third form was the most severe; there was general collapse, coldness of the extremities, scarcely perceptible pulse, etc. Death ensued in three cases, and convalescence was much protracted in the others. The post-mortem appearances were gastro-enteritis, and hyperæmia and extravasation in the cerebral meninges, the blood being dark and very fluid. There was no retention of urine, and no difficulty of deglutition, whereby the epidemic was distinguished from cholera, and from poisoning with sausages. The cow had had a fracture of the ribs and pleurisy, and it was, therefore, probable that the meat had been poisoned in consequence of pyæmia. The meat was poisonous whether roasted or boiled.

Professor Seitz, of Munich, spoke on the *Veratrum Americanum*, as imported from America, and which should more properly be called *Extractum Veratri viridis*. This was distinguished by its very powerful action, and was prepared by extracting the residue of an infusion or decoction with alcohol. Ten drops were sufficient to produce death in rabbits. In America it was prescribed in doses of five drops every three hours, and sometimes the dose was gradually increased to ten drops. It proved chiefly successful in cases of pneumonia, typhoid, and rheumatic fever, etc. If given to a healthy person, it caused at first an increase of temperature and the rate of pulsation; but after an hour or two both were diminished, the temperature by two to four degrees, the pulse by ten to twenty-two beats; at the same time headache, sickness, and vomiting might ensue. The speaker said, that in fevers he preferred this preparation to digitalis, as it acted much more rapidly, and was not so dangerous as the latter substance.

Dr. Loch, of St. Petersburg, spoke on trichinæ in the human being. The affection frequently commences with œdematous swellings, which appear at first in the face, and afterwards in the upper and lower extremities. At the same time pain and rigidity is felt in all voluntary muscles, high fever ensues, with a pulse of from 120 to 130 beats, and a temperature of from 100° to 102°. With regard to diagnosis, the examination of the tongue and the gums, as recom-

mended by Messrs. Welcker and Küchenmeister, has, as yet, proved unsuccessful; but we generally find trichinæ in the fæces, especially the female worm. Almost all anthelminthic remedies have been tried in this affection, one after the other, with the result that *Semen Cinæ* was the best, and castor-oil and drastic purgatives the next best. With regard to the origin of the disease, it seems probable that the embryons are first carried into the thoracic duct, from where they are by the blood brought to the voluntary muscles. If death ensues, there is always much emaciation: this is, however entirely due to wasting of muscular tissue; the fat, on the contrary, is mostly increased. Concerning prophylaxis, it has been shown that meat which contained trichinæ, but was for some time and completely impregnated with table-salt, did not produce the trichina disease; while the worm is not thoroughly killed either by cooking or boiling.

Dr. Friedmann, of Munich, made some remarks on the essence and propagation of malaria, and contended that there were four causes of it, the final results of which were the same, viz., a decomposition of organic substances. The first of them was alluvial soil at the mouth of considerable rivers; the second, marshes without rivers; the third, breaks in the earth, caused by earthquakes, borings for peat, etc.; and the fourth, destruction of forests, especially where there are small marshes. Malaria was a disease of the blood, and not of the nervous system. The malaria miasma consisted of a mixture of air with the products of decomposition of organic substances, and caused a pathological alteration of the blood.

Dr. Steinau, of Capetown, then gave an account of Medicine as it is in the Cape, and the diseases mostly met with there. There are no plague, cholera, ague, scarlatina, typhus, and scabies there, but measles and small-pox are generally severe. The natives, whose epidermis is exceedingly thick, are very fond of being vaccinated. Midwifery is very much neglected, and the native Doctors are throughout ignorant and cruel in their treatment of disease.

GENERAL CORRESPONDENCE.

THE SUBCUTANEOUS INJECTION OF MORPHIA IN CHOLERA.

Letter from Dr. Ashe.

[To the Editor of the Medical Times and Gazette.]

Sir,—Perhaps the accompanying two cases of Asiatic cholera, speedily and successfully, as well as simply treated, may prove interesting to your readers. They occurred in the practice of Dr. Ricketts, of this town, who, perceiving the value of opium in this disease, and also the difficulty of administering it either by the stomach or rectum, without its being immediately rejected, conceived the idea of employing, in this disease, subcutaneous injection with Wood's syringe, a mode of treatment which he has now found successful in several instances. In the following cases no other treatment was used:—

Case 1.—Mrs. H., aged 35, on November 11, was seized, about 7 o'clock a.m., with violent purging and vomiting, occurring about every quarter of an hour, and attended with severe cramps in the bowels, extending down the limbs. The evacuations were of the usual rice-water character; coldness and collapse came on very speedily; and when Dr. Ricketts was sent for at ten o'clock, or three hours after the commencement of the attack, the patient was already cold and livid in countenance.

Dr. Ricketts immediately injected ɱxv. of Liq. morph. acet. beneath the skin of the abdomen. In a quarter of an hour the cramps were completely removed, and the patient expressed herself as very comfortable. Dr. Ricketts administered, also, a few grains of calomel. From the moment of injection there was no return of either purging or vomiting; collapse was removed, warmth returned to the surface, and she rapidly regained strength. The next day she was able to be up, and felt almost as well as ever, being able even to go about and attend to household matters.

Case 2.—At half-past 12 o'clock the same night, Dr. Ricketts requested me to see a patient, with similar symptoms. He was an old Indian veteran, aged 64, and had often seen men struck down in India with cholera, and was, consequently, very well aware what was the matter with him. I found him suffering from violent purging, which had occurred, he estimated, about twenty times within the eight hours which had elapsed from the commencement of the attack; vomiting had come on about two hours later, and was continuing with great frequency and severity. The cramps in the bowels were so severe, that the stout old soldier was crying out with them; they extended also down the thighs; collapse had not yet commenced, but the surface was much colder than normal, though the pulse was 104. Following Dr. Ricketts' treatment, I injected ɱxv. of Liq. morph. acet. beneath the skin of the abdomen, and, wishing thoroughly to test the efficacy of this plan of treatment, determined to have recourse to no other measures. In a quarter of an hour the cramps were quite gone, and the patient exclaiming about the wonderful powers of the remedy. They did not again recur, though the purging returned, but with less frequency; vomiting also recurred once or twice during the night. Accordingly, some hours afterwards, Dr. Ricketts injected a second ɱxv. of the Liq., which had the effect of completely arresting all purging and vomiting. The patient was up the next day, complaining only of a little weakness, and on the following day he set out on a journey.

Trusting that these cases may induce other members of the Profession to give a trial to this valuable mode of treatment,

I am, &c.

Birkenhead, Nov. 8. Isaac Ashe, M.B.

A CASE OF PLACENTA PRÆVIA IN A MULTIPAROUS WOMAN BETWEEN THE SIXTH AND SEVENTH MONTH OF HER PREGNANCY.

Letter from Septimus Briggs Farr.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to forward you an interesting case of placenta prævia, occurring in my practice a few days ago. I submit it for the consideration of your numerous readers as illustrating the advantage of turning at the seventh month when practicable.

I am, &c.

Septimus Briggs Farr,

Hemel Hempstead. M.R.C.S. Lond., and L.S.A.

Elizabeth B., aged 33, of rather short stature, stout, but somewhat delicate, of pallid aspect, mother of three children, the last an infant of ten months, called me in the early part of September, 1862 (being pregnant with the fourth child about six months), respecting a certain considerable loss of blood which she had experienced shortly before my arrival. While pursuing her ordinary duties it came on in a sudden gush, unaccompanied with any extreme pains; after which she became faint, and subsequently recovered, without any recurrence of hæmorrhage for ten days. Then came a second attack similar in all respects to the first, except, as may be supposed, that its effects were more severe. Suspecting at this, my second visit, the existence of placenta prævia, I made an examination, and found the os uteri soft, cushiony, and somewhat relaxed, but not sufficiently so to enable me to ascertain the nature of the presentation without using unjustifiable force. To meet these attacks I adopted the usual treatment, viz.,—rest, opium, mineral acids, stimulants, nourishing broths, etc. As the hæmorrhage did not continue after each loss, I did not consider it necessary to employ plugging.

On Sunday, October 5, I was again summoned to her, and found the hæmorrhage had recurred to a much more alarming extent. She lay in a cold sweat, with blanched lips; countenance anxious and pale; pulse almost imperceptible,—in fact, exhibiting all the signs of imminent syncope. Having administered large doses of ammonia and brandy, which had the effect of restoring her, I made an examination, and found the os uteri soft and dilatable, so that I was enabled to determine that the placenta was presenting and completely covering the os. From the critical condition of my patient, it was sufficiently apparent another loss of blood would be fatal, and that she must be delivered at once; but before attempting this I availed myself of the kindness of my friend and neighbour, Mr. E. H. Ambler, who, on seeing the case and making an examination, quite concurred in my opinion, so that I immediately made the attempt. With some slight difficulty in dilating, I was able to pass my hand through the os, then backward to where the placenta was least attached, when I came upon the membranes, which I ruptured, and on passing my hand still further felt a foot, which I brought

down, and delivered the woman without further difficulty, the placenta following in a few seconds, and the uterus contracting immediately. For the first two or three hours after delivery she remained extremely prostrate, but there was no hæmorrhage. She has continued to do well from day to day since her confinement. The child lived forty-eight hours.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 2.

Dr. COPLAND, President, in the Chair.

MR. NUNN exhibited a cast of a hand, affected with an

UNUSUAL SKIN DISEASE.

The east showed many nodosities upon the fingers—upon all, except one, which had been bent into the hand, and had thus escaped pressure in the patient's work, that of a cabinet-maker. It might be thought, Mr. Nunn said, that the disease was enchondromatous, but the tumours were in the skin, and freely movable. He was in doubt as to the nature of the disease, but thought that it was of gouty origin. There was a similar swelling near the olecranon, and of the parts of the foot exposed to pressure.

Mr. HULKE had seen a case like this some years ago, and removed two of the nodules. The structure was fibroid.

Mr. COULSON thought that the bursæ were enlarged.

Dr. LITTLE thought that the contracted finger was a result of gouty disease.

Mr. NUNN stated that the patient attributed the contraction to an accident.

Dr. LITTLE said that, in all cases of this kind, the patient gave a history of accident, however clear it might be that gout was the real cause.

Mr. CANTON said that evidence as to the gouty nature of the disease could be found, as pointed out by Dr. Garrod, in the meibomian follicles and in the ear, gouty matter being frequently deposited in those places in persons predisposed to this diathesis.

Dr. WILKS said that he had seen the patient from whose hand the cast had been taken. On the surface were small white deposits, like those of gout. He had examined the man's eyes and ears, and had found no deposits in those positions. He did not think, however, that the whole of the masses were gouty. They were soft, and had a velvety, and not a hard, chalky feel.

Mr. HENRY THOMPSON had opened such swellings. He did not think the affection could strictly be called disease of the skin.

Mr. WILLIAM ADAMS said that he also thought contraction of the finger was from rheumatic gout.

Mr. NUNN said that he agreed with the speakers in believing that the disease was connected with gout. The points for the consideration of the Society were, that the disease was in the skin, and not connected with the bone, nor in the position of bursæ. Again, that it occurred in parts exposed to pressure; and hence, that the contracted finger, escaping pressure, was free from the disease.

Mr. NUNN then showed a section of an

ENORMOUS SPLEEN.

It weighed thirteen and a-half pounds. Its transverse circumference was thirteen and a-half inches; its longitudinal, thirty-two. It occupied one-half the cavity of the abdomen. The patient died of exhaustion and peritonitis. There was also a large quantity of fluid in the abdominal cavity.

Dr. MURCHISON asked if the blood had been examined?

Mr. SPENCER WELLS said that, more than twenty years ago, Dr. Robert Williams had made known the remarkable power exercised by bromide of potassium in reducing enlargements of the spleen, and had led to the admission of this remedy to the Pharmacopœia. He (Mr. Wells) had seen some extraordinary instances of this power, in cases of enlarged spleen following the fevers of the Mediterranean. In more than one case, the process of diminution was distinctly traced inch by inch, and a spleen which had reached the pubis and right ilium, had returned to a very small size under the use of eight grains of the bromide given three times a-day. He would, therefore, like to know if this remedy had been tried by Mr. Nunn; and if so, and it had proved useless, whether (as the patient was apparently being killed by the splenic tumour, and by nothing else) the question of removal by surgical operation had been considered. The spleen could be removed very easily in dogs and other animals; they seemed to remain perfectly well without a spleen, and there certainly could not be more difficulty in removing a large spleen from the human body than a large ovarian tumour. For his own part, if he met with a case where a patient was evidently being killed by a large spleen, where all remedies had proved useless, and where the dying person was willing to run the risk on the chance of saving his life, he would certainly be disposed to remove the tumour.

Dr. MURCHISON thought there would be more difficulty in securing the splenic vessels than was met with in securing the vessels of an ovarian tumour.

Dr. WILKS said Mr. Wells's suggestion might prove a very valuable one. People, undoubtedly, did die of enlarged spleens, who had no other disease. The bromide of potassium was only useful in those forms of enlarged spleen which followed intermittent fevers. In the simple hypertrophy of the spleen, of which he believed Mr. Nunn's specimen to be an example, and in the lardaceous form of disease, the bromide was equally useless. In those cases it was very well worth while to consider whether a Surgical operation might not save life.

Dr. GIBB had once removed an enlarged spleen from a dog. The animal lived six days, and then died of peritonitis.

Mr. NUNN said that the blood had not been examined.

Mr. NUNN then exhibited a specimen of

CANCER OF THE PENIS.

It had been removed partly by the ecraseur, and partly by the knife. In reply to Mr. Erichsen, Mr. NUNN said that there had been no bleeding except from one vessel.

The PRESIDENT said that some years ago he saw a case of cancer of the penis, in consultation with Mr. Mayo. The patient's wife had cancer of the os uteri. The President supposed that she had received the disease from the contact of the diseased secretion from the penis with the os uteri. Mr. Mayo told him that he had seen a similar case.

Mr. SPENCER WELLS presented a

CANCER OF THE RIGHT KIDNEY,

which had weighed between sixteen and seventeen pounds, and had been taken from a girl only 4 years old. She had been under his care in the Samaritan Hospital for a few days, but had gone home and died at Nantwich, and Dr. Williamson had sent up the specimen. The diagnosis of malignant disease had been made during life, from the great rapidity of the growth, which dated only from last May; and the right kidney was suspected to be the seat of the disease, although the urine was quite normal from the fact, that there was dullness on percussion and bulging in the right loin, and all over the right side and front of the abdomen, the intestines being pushed downwards and to the left side. Photographs by Dr. Wright, showing the appearance of the child during life, were also exhibited.

Mr. SPENCER WELLS also presented

SIX OVARIAN TUMOURS REMOVED BY OVARIOTOMY.

The first was removed, on October 27, from a single woman, 43 years of age. It was a specimen of multilocular cyst combined with adenoma. The patient died of peritonitis. Both spleen and liver were large. This was the only death in the last fifteen cases upon which Mr. Wells had performed ovariotomy, the other fourteen being either well or doing well.

The second specimen had very much the appearance of colloid, with portions in a state of softening; but it was probably a form of adenoma. The patient was a single lady, 32 years of age. The operation was performed on November 6, and she returned to the country on the day of this meeting quite well.

The third was a small multilocular cyst, removed, on November 15, from a single lady, 23 years of age, who was nearly well.

The fourth was a large multilocular cyst, which had been extensively adherent, but had been removed from a married woman, 50 years of age, on November 17. She had recovered without a single unpleasant symptom; but Mr. Wells added, that the most singular point connected with the operation was, that Dr. Robert Lee was present and witnessed it.

The fifth was a large multilocular cyst, removed from a single lady, aged 23, on November 25, who was doing well.

The sixth was also a large multilocular cyst, removed, in the Samaritan Hospital, on November 26, from a girl, only 17 years of age. There had been extensive adhesions, and the patient was now doing well, although, on the day after the operation, Mr. Wells adopted the unfashionable practice of blood-letting. The heart and lungs were evidently oppressed. There was cough and dyspnœa, and the pulse got up from 120 to 140 and 160, but immediate and marked relief followed the loss of ten ounces of blood, and the patient had done well ever since. No blood had been lost at the time of the operation; but a very large tumour had been removed, which had previously received a large supply of blood, and the fluid in the cyst had been formed from the blood. When all this was suddenly stopped, the blood vessels seemed to contain more blood than the heart and lungs could readily dispose of, although both skin and kidneys were acting very freely. So he (Mr. Wells) opened a vein, with a view of giving mechanical relief, and the effect was all that could have been hoped for.

Mr. Coulson asked Mr. Wells how he secured the pedicles of those tumours, and what length of incision he generally made?

Mr. Spencer Wells replied, that in all the cases he had used a clamp, which he generally removed thirty-six or forty-eight hours after operation. In one case he removed it four hours after operation, as the pedicle was short, and traction upon the uterus seemed to cause vomiting. The incision had not exceeded four or five inches in more than one of the cases. In one of his cases, where he had removed a tumour weighing, with its contents, more than forty pounds, the cicatrix had only measured an inch and three-quarters.

Mr. Hulke exhibited specimens from a case in which there was

DISEASE OF THE SPINE AND DISEASE OF THE SUPRA-RENAL CAPSULES.

The disease of the spine was at the third and fourth lumbar vertebræ. The disease of the capsules was in an early stage of the form of disease described by Dr. Addison. Mr. Hulke then referred to three similar cases described by Dr. Wilks. In his (Mr. Hulke's) case, there had been no bronzing of the skin. The disease, however, was in a very early stage.

Mr. Hulke also exhibited a specimen of

NECROSIS OF THE SACRUM.

It affected the third sacral vertebra, also the sacro-iliac joint. Sinuses from the part extended down the thigh. These were laid open, but the boy sank from the effects of the profuse discharge.

Mr. William Adams exhibited a specimen of

ANCHYLOSIS OF THE KNEE AT A RIGHT ANGLE, FORWARDS.

The specimen had been sent to him by Dr. Grant, of Canada. There was only one specimen like this. It was in the museum of St. Thomas's Hospital. The patient was a man, aged 18. Several years before he had had an injury to the knee, and this was followed by inflammation and subsequent anchylosis, in this unusual position. Dr. Grant had wished to take out a wedge-shaped piece of bone from behind, but the friends of the patient insisted on amputation. The patient did well after the operation.

Mr. William Adams then showed another specimen—

A BULLET REMOVED FROM THE FOOT; SIX YEARS IMPACTED.

The patient, a gentleman, 24 years of age, was shot, in pistol practice, six years before Mr. Adams saw him. Many Surgeons, at the time of the accident, tried to extract it, but failed; subsequently, about four times a-year, he was occasionally laid up, several weeks at a time, by inflammation of the whole foot. At the end of six years, he consulted Sir Benjamin Brodie, who advised that it should be left alone. The patient, however, determined to get rid of his trouble by amputation, but, at the suggestion of Mr. Adams, he submitted to an attempt at the extraction of the bullet. Mr. Adams first attempted to get it out by enlarging a fistula which led to about the position of the junction of the os calcis and cuboid, but failed. At a second operation by an opening from the sole of the foot, he was enabled to get it out. It was surrounded by a capsule of necrosed bone. The patient did well. The ankle-joint was not at all affected.

Mr. Pollock then showed a specimen of

OBLITERATION OF THE FEMORAL VEIN.

It was taken from a patient who died of phthisis, under the care of Dr. Johnson, in King's College Hospital. She had been phthisical some time, when, in June, 1862, she spat blood, and soon afterwards the left, and next the right, leg began to swell. She died on October 28. At the autopsy, the lungs were found extensively diseased. There was a mass of coagula in the left ventricle. The iliac and femoral and saphena veins were plugged, as a consequence, it was supposed, of purulent infection from pus in the cavities in the lungs.

Dr. Bristowe said that the complication of phthisis with swelling of the legs was not uncommon. He did not think, however, that the plugging of the veins was caused by the absorption of matter into the blood from cavities in the lungs.

Dr. Little said he thought that phlebitis was frequently caused by anæmia, whether that was the anæmia of phthisis or chlorosis.

The President thought, also, that anæmia was one of the conditions giving rise to phlebitis.

Dr. Dickinson then showed a specimen of

PLUGGING OF THE PORTAL VEIN BY FIBRINOUS MATTER.

It was clear that this obstruction had occurred some time before death, as the clot was firm and decolorised. The walls of the veins were healthy. The liver was smaller than natural, and presented all the usual conditions of yellow atrophy. In one lung there was a fibrinous deposit. The patient had had ascites three months.

Dr. Dickinson also showed a specimen of

SOFTENING IN THE POSTERIOR LOBE OF THE BRAIN, FROM ENDOCARDITIS.

The patient was a girl aged 17, who had had two attacks of rheumatic fever. She was admitted for symptoms very like those of typhoid fever. The action of the heart was fluttering and irregular, and there was a murmur at the apex and base. A careful examination could not be made. After death remains of old pericarditis were found. Betwixt the surface of the heart and the adherent pericardium were some more recent patches of lymph. Above the mitral valves was a raw patch, where, no doubt, lymph had recently been deposited. In the posterior lobe of one hemisphere was a cavity, which did not contain pus, but a soft, semi-fluid matter, which, under the microscope, was found to consist of finely divided nervous tissue. The neighbouring blood-vessels were blocked up by fibrine. There were similar obstructions in the spleen and liver.

Dr. Little said that we were too apt to draw our conclusions as to the cause of phlebitis from fatal cases. We ought, he thought, also to take into consideration the slighter cases which occurred in anæmia, in chlorosis, and in spanæmia generally.

Dr. Graily Hewitt said that the question raised by Dr. Little was one of a very interesting character; yet he could not agree with him in attributing the obstruction of the veins in chlorotic girls to phlebitis. He thought it was not inflammatory.

Dr. Little, however, maintained that the obstruction was a consequence of true inflammation of the veins.

Mr. Nunn thought that the influence of a varicose condition of the veins in these cases was too much overlooked.

Dr. Dickinson then showed a

LIVER AND KIDNEY AND PART OF A BRAIN AFFECTED WITH AMYLOID DISEASE.

One of the masses grew from the sella turcica, and affected one of the optic nerves. The corresponding eye, during life, had been totally amaurotic. It was semi-transparent, and like cartilage, and gave the reaction of amyloid matter.

Dr. Wilks protested against the term "amyloid." He thought that no English observer had proved that the matter forming these tumours was really starch.

Dr. Dickinson said he merely used the word as a name generally applied to the substance.

The President then suggested that, as the subject of amyloid disease was an important one, a committee should be formed to report on the subject—not merely on the specimen before the Society.

A committee, consisting of Dr. Wilks, Dr. Dickinson, Dr. Bristowe, and Dr. Murchison, was then appointed.

Dr. Harley then exhibited a specimen of the

YOUNG OF THE GUINEA WORM.

He had found that the guinea worm exhibited at the last meeting of the Society was full of young entozoa. He exhibited this specimen in order to show how these entozoon obtained entrance into the body. It was found, under the microscope, that the animal had a tail tapering to an exceedingly fine point. At the other end it was blunt.

OBITUARY.

WILLIAM CROZIER, F.R.C.S.

We regret to announce the death of this gentleman, which took place on board the Peninsular and Oriental steamer *Simla*, on the 19th ultimo. The deceased was the son of Mr. Crozier, of Oxford, where he received his preliminary education. He commenced the study of the Medical Profession at St. Bartholomew's Hospital, where he greatly distinguished himself as an industrious student; and on June 3, 1839, was admitted a member of the Royal College of Surgeons of England. The College had just established a studentship in Human and Comparative Anatomy, at a salary of £100 per annum, tenable for three years, at the expiration of which time an appointment of Assistant-Surgeon in the old East India Company's service, or in the Army or Navy, was placed at the disposal of the College every third year for the students obtaining this situation, which was only by *concours*.

Mr. Crozier competed for, and obtained this the first studentship of the College, at the expiration of which time he selected the then much-courted prize in the Hon. E.I.C. Service, and at once sailed for Bengal. It is not a little singular that all subsequent students accepted this service in preference to that of the Army and Navy; those unable to obtain it, as it was only given once in three years, settled down into private practice; but all of these gentlemen, whether in the public or private service, greatly distinguished themselves (a). Mr. Crozier was so fortunate as safely to pass through all the troubles and dangers of the Indian mutiny, when another of the College students, in possession of several lucrative civil and military appointments, Dr Hansbraw, was most brutally murdered at Bareilly, In 1855, he visited England, and on returning to India was elected the Professor of Anatomy and Physiology at the Medical College, Calcutta. He was elected a Fellow of the Royal College of Surgeons only on the 13th of February last. The deceased, who was only 45 years of age, leaves a widow and children to mourn their loss.

MEDICAL NEWS.

Royal College of Physicians of London.—The following Gentlemen passed the first part of the Professional Examination for the Licence of the College on December 5 :—

John Henry Simpson, Charing-cross Hospital; Thomas Haywood Smith, Birmingham; John Legge Curric, St. Bartholomew's Hospital; Anthony Charles Colborne, and William Lewington Barker, St George's Hospital; Samuel Woodmau, St Mary's Hospital; Henry Brietzcke, H.M. Dockyard, Deptford; Milner Montgomery Moore, Lock Hospital; William Spooner, University College; Frederick Roystou Fairbank, Manchester School of Medicine.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 4, 1862 :—

Edward Lever, Padiham; Thos. Pickering Pick, Waterloo, Lancashire; Wm. Frederick Taylor, Liverpool; Edmund Spooner Machin, Erdington; Ralph Eddowes, King's College Hospital; Thomas Griffiths, Dryslwyn-fawn, Carmarthenshire; and John Ring, Lawn-house, Wincanton.

Name of gentleman who passed his Examination in the Science and Practice of Medicine, and received Certificate to Practise, on Saturday, December 6, 1862 :—

Henry Curtler, Droitwich.

The following gentlemen also on Thursday, December 4, passed their First Examination :—

Thomas Wilson Corbin, St. Bartholomew's Hospital; Solomon Charles Smith, Sydenham College, Birmingham; Joseph Peeke Richards, King's College Hospital; and John Sidney Turner, Guy's Hospital.

APPOINTMENTS.

Brown.—Senior Assistant-Surgeon W. C. Brown, Indian Service, M.D., has been promoted to be Surgeon, *vice* Surgeon-Major Lodwick, deceased.

Buckley.—John Buckley, Acting Assistant-Surgeon R.N., has been appointed to the *Meander*.

Condon.—James Hunt Condon, M.R.C.S. Eng., Assistant-Surgeon, Indian Service, in civil Medical charge of Hurdui, Oude, has been transferred to Baraitch, as a temporary arrangement.

Daniell.—C. O. Daniell, M.D., Assistant-Surgeon, Indian Service, in civil Medical Charge of Dhurmsala, has been appointed temporarily to superintend the duties of the Kangra Dispensary in addition to his other duties.

Evans.—Edward Higgon Evans, M.R.C.S. Eng., L.S.A. Lond., Surgeon R.N. April 16, 1862, has been appointed to the *Shearwater*.

Ferguson.—Robert Ferguson, M.D., Assistant-Surgeon R.N. June 25, 1856, has been appointed to the *Victory* for Haslar Hospital.

Godrich.—Thomas Godrich, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer to the Union Workhouse, Dulverton, Somersetshire, *vice* John Barrett Collyns, M.R.C.S. Eng., L.S.A. Lond., resigned.

Harris.—Hetman Charles Harris, F.R.C.S. Eng., L.S.A. Lond., has been elected Surgeon-Accoucheur to the City of London Lying-in Hospital, City-road, *vice* Henry James, F.R.C.S. Eng., L.S.A. Lond., resigned.

Harkan.—Henry Harkan, Surgeon R.N., May 23, 1861, has been appointed to the *Pylades*.

Harte.—Mark Anthony Harte, L.K.Q.C.P. Irel., L.R.C.S. Irel, Acting Assistant-Surgeon R.N. October 8, 1861, has been confirmed in the *Satellite*.

Horrocks.—John Horrocks, M.D. Univ. St. And., Acting Assistant-Surgeon R.N., has been appointed to the *Pylades*.

Lambert.—John Lambert, Acting Assistant-Surgeon R.N., has been appointed to the *Megæra*.

Llewellyn.—Owen J. Llewellyn, M.D., Surgeon R.N., May 23, 1861, has been appointed to the *Pylades*.

MacLeod.—George H. B. MacLeod, M.D. Univ. Glasg., F.R.C.S. Edin., F F.P.S. Glasg., has been appointed one of the District Medical Inspectors of Glasgow, in succession to Dr. Bell.

Marriott.—Charles Hayes Marriott, M.B. Univ. Lond., F.R C.S. Eng., L.S.A. Lond., has succeeded the late Robert Henton Wood, F.R.C.S. Eng., L.S.A. Lond., as Consulting-Surgeon to the Ladies' Maternity Charity, Leicester.

Mullar.—Frederick George William Mullar, M.D. Univ. Edin., and L.M., L.R.C.S. Edin., L.S.A. Lond., Medical Officer to the Kilburn Dispensary, bas been elected Medical Officer and Public Vaccinator for the Willesden District of the Hendon Union, *vice* Matthew Ledger, M.R.C.S. Eng., M. and L.S.A. Lond., deceased.

Orange.—William Orange, M.R.C.S. Eng., and L.M., L.S.A. Lond., Assistant Medical Officer to the Surrey County Lunatic Asylum, Tooting, has been appointed Deputy Superintendent and Surgeon to the Broadmoor Criminal Lunatic Asylum.

Pratt.—Alfred S. Pratt, Assistant-Surgeon R.N., January 23, 1855, has been appointed to the *Victory*, for Haslar Hospital.

Sharpey.—William Sharpey, M.D. Univ. Edin., F.R.C.S. Edin., Professor of Anatomy and Physiology at University College, has beeu elected Dean of the Faculty of Medicine.

Shortridge.—Samuel Shortridge, M.D. Jena, L.R.C.S. Edin., has been elected Surgeon to the second District of Greenock, *vice* Barclay Henry, M.D. Univ. Glasg., elected to the Parishes of Luss and Arrochar, Dumbartonshire.

Taylor.—Thomas Henry Taylor, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon R.N., May 5, 1854, has been appointed to the *St. Vincent* for the *Sealark*.

Tibbits.—Edward Thomas Tibbits, M.B. Univ. Lond., M.R.C.S. Eng. L.S. A. Lond., has been appointed House-Surgeon to the Coventry and Warwickshire Hospital, *vice* William Robert Horniblow, M.D. Univ. Edin., M.R.C.S. Eng., L.S.A. Lond., resigned.

Walsh.—Robert Pakenham Walsh, L.K.Q.C.P. Irel., L.R.C.S. Irel. and L.M., has been appointed Surgeon to the County Gaol, Enniskillen, Co. Fermanagh, *vice* William Chambers Ovenden, M.D. Univ. Glasg., L.R.C.S. Irel. and L.M., deceased.

Yule.—Alexander Yule, M.D. and M.C. Univ. Aberd., Acting Assistant-Surgeon R.N., has been appointed to the *Shearwater*.

DEATHS.

Baillie.—November 2, at Falmouth, Jamaica, William Baillie, M.R.C.S. Eng., aged 50.

Carnegie.—October 30, at the Hugung Bungalow, twenty miles from Jaulnah, Henry Carnegie, of the Madras Medical Service.

Galen.—December 5, at No. 33, Claremont-square, Pentonville, John Galen, of No. 7, East Craibstone-street, Aberdeen, M.D. Univ. Edin.

Greenwood.—December 5, William Greenwood, of Huddersfield, Yorkshire, F.R.C.S. Eng., L.S.A. Lond, Consulting Surgeon to the Huddersfield aud Upper Agbrigg Infirmary, aged 60.

Guthrie.—December 2, at Newburgh, Fife, James Guthrie, M.D. Univ. Edin., Surgeon R.N., November 30, 1800 (on the retired list), aged 82.

Harrison.—December 1, at Cheltenham, John Gregson Harrison, late of Ellingham House, Oxford-street, Manchester, M.D. Giessen (exam.), F.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond., aged 56.

Hope.—In October, at Peshawur, of cholera, Samuel Hope, M.R.C.S. Eng., L.S.A. Lond., Assistant-Surgeon 93rd Regiment of Foot (Sutherland Highlanders).

Jones.—November 22, John Jones, of Frodsham, Cheshire, M.R.C.S. Eng., L.S.A. Lond., Medical Officer to the Frodsham District of the Runcorn Union, and Hon. Assistant Surgeon 24th Cheshire Rifle Volunteers, aged 31.

Lewis.—December 7, Edward Lewis, of Sherburn, Yorkshire, Surgeon, in practice prior to 1815, aged 74.

Maughan.—November 25, John Brown Maughan, of Humshaugh, Hexham, Northumberland, M.R.C.S. Eng., L.S.A. Loud.

Meredith.—December 2, Edward Taylor Meredith, of Cleveland-place, Bath, formerly of Twickenham, Middlesex, M.R C.S. Eng., L.S.A. Lond., Resident Medical Officer to the Eastern Dispensary, Bath, aged 59.

(a) We subjoin a few: Crozier, Bengal Army, Professor of Anatomy and Physiology, Medical College, Calcutta; Quekett, Professor of Histology and Conservator, College of Surgeons' Museum; Drs. Hansbraw and Skinner, Bombay Army; Pittard, Professor of Comparative Anatomy, University of Sydney; Dr. Sylvester, Bombay; Hulme, F.R.C S., Surgeon to the Great Northern, and Hillman, F.R.C.S. to the Westminster Hospitals; Williams, F.R.C.S., Bengal Army; Professor Carter, of Bombay; Stewart, Assistant-Conservator.

OVENDEN.—October 15, William Chambers Ovenden, of Enniskillen, M.D. Univ. Glasgow, L.R.C.S. Irel. and L.M., Surgeon to the Fermanagh County Infirmary, Enniskillen, and to the Fermanagh County Gaol.

PHIPPS.—December 7, John Pedder Phipps, of St. James'-place, Fermoy, and South Cregg, County Cork, M.D.

PUGHE.—November 22, David William Pughe, of Brondirion-villa, Clynnog, near Carnarvon, M.R.C.S. Eng., L.A.H. Dub., aged 41.

ROBERTS.—November 27, at Tir-y-fron, after a long illness, Richard Roberts, of Ruabon, Denbighshire, M.R.C.S. Eng. (in practice prior to 1815), aged 68.

TAYLOR.—December 7, John Oliver Taylor, of No. 93, Everton-road, Liverpool, M.R.C.S. Eng., L.S.A. Lond., L.M. Dub., aged 43.

THURNALL.—July 4, Arthur Wellington Thurnall, of Cambridge, M.R.C.S. Eng., L.S.A. Lond., L.M. Dub., Surgeon to the Cambridge County Gaol, and Medical Officer to the Chesterton District and Union Workhouse.

LONDON GAZETTE.

December 9.

4TH DRAGOON GUARDS.—Staff-Surgeon John Grogan, M.B., to be Surgeon, *vice* Robert Cooper, placed upon half pay; dated December 9, 1862.

ROYAL ARTILLERY.—Supernumerary Veterinary Surgeon Robert Marshall, from the Military Train, to be Veterinary Surgeon, *vice* E. T. Cheesman, appointed to the 3rd Dragoon Guards.

Acting Veterinary Surgeon William Barker Walters, to be Veterinary Surgeon, *vice* John Mills, appointed to the 18th Hussars; dated November 26, 1861.

2ND REGIMENT OF FOOT.—Staff Surgeon Francis Lewis Fitzgerald to be Surgeon, *vice* Surgeon-Major Lloyd, appointed to the Staff; dated December 9, 1862.

35TH FOOT.—Staff Assistant-Surgeon Donald Macgillivray Davidson, M.D., to be Assistant-Surgeon, *vice* John Clarke, M.D., deceased; dated December 9, 1862.

MEDICAL DEPARTMENT.—Surgeon-Major Sandford McVittie Lloyd, M.D., from the 2nd Foot, to be Staff Surgeon-Major, *vice* Surgeon John Grogan, M.B., appointed to the 4th Dragoon Guards; dated December 9, 1862.

Gideon Rutherford, M.D., to be Staff Assistant-Surgeon; dated December 9, 1862.

Staff Surgeon-Major Thomas Coke Gaulter, M.D., who retires upon half pay, to have the honorary rank of Deputy Inspector General of Hospitals; dated November 1, 1862.

Staff Surgeon-Major John Thomson Telfer, who retires upon half pay, to have the honorary rank of Deputy Inspector General of Hospitals; dated December 9, 1862.

Staff Surgeon Deodatus William Eaton has been removed from the Army, her Majesty having no further occasion for his services.

To be Brevet Inspector-General of Hospitals, Deputy Inspector-General of Hospitals Charles Frederick Collier; dated December 9, 1862.

To be Deputy Inspector-General of Hospitals, Surgeon-Major Hubbersty Maddison Tweddell; dated December 9, 1862.

MR. POSTGATE, in his very able Introductory Lecture at Birmingham, thus sums up the requisite qualifications for the study of Medicine:—"1. Good health, without which all thoughts and all efforts are puny, incomplete, and inoperative. 2. A well-balanced and an evenly-regulated mind. 3. Unselfishness. 4. Fixity of purpose. 5. An unswerving determination to do always what is right, let the consequences be what they may. 6. Clearness of perception. 7. Promptness of action. 8. General benevolence; and, I will add, 9. General contempt for the luxuries and comforts of life, looking for reward to that satisfaction, peace, and contentment of conscience, which flows from the conviction of human misery alleviated, and of human life prolonged, by duties faithfully discharged and services cheerfully rendered."

ZOOLOGICAL SOCIETY.—At the fortnightly meeting of the above Society on Tuesday last, W. Holdsworth, Esq., in the chair, a paper was read by W. H. Flower, Esq., Conservator of the Museum of the Royal College of Surgeons, on the "Anatomy of *Pithecia*." The species dissected was probably the *P. monachus* of Geoffroy. The brain weighed 460 grains, being one-eighteenth of the weight of the emaciated body of the animal; the cerebral hemispheres extended completely over and a little beyond the cerebellum, none of the latter being visible from above. A well-marked "calcarine" fissure was present, which, according to Mr. Flower's inference, indicated on the outside the presence of a *hippocampus minor*. The dissection of the lateral ventricle was, however, not performed. In *Pithecia*, as well as in all Old and New World monkeys, and especially in the *Lemuridæ*, the curious sub-lingual structure was present which had been often described by zoologists. Papers were also read by Mr. Wallace on "Birds from the Eastern Archipelago," and by Dr. Buckland on the "Porpoise lately dead in the Zoological Gardens." It was announced that there was every probability that the Gardens would shortly possess another specimen of porpoise, and that tanks of sea-water were about to be built to receive the expected "white whales" next year. Dr. Cobbold exhibited an interesting series of some of the most rare *Entozoa*, which he had recently received from Dr. Leuchart, in exchange. Thirty species of *Entozoa* are now known to infest man. Mr. Bartlett exhibited a new species of Lemur, to be named *Lemur leucomystax*, a live specimen of which is now in the Gardens.

RAPE DURING SLEEP.—An interesting and important case on this vexed question of Medical Jurisprudence is given in the last number of the *Edinburgh Medical Journal*, where the act had been completed on a woman, who had been married sixteen years, and had three children, without her knowledge, until the moment the man was leaving her. It is due to the woman to state that, owing to great fatigue and want of sleep for some time previous, she had fallen into a more profound sleep than was natural. The culprit was tried, and received ten years' penal servitude.

POISONOUS TURTLE AND SARDINES.—At certain seasons the flesh of turtle on the south-western coast of Ceylon is avoided as poisonous, and some lamentable instances are recorded of deaths ascribed to its use. At Pautura, to the south of Colombo, twenty-eight persons who had partaken of turtle in October, 1840, were immediately seized with sickness, after which coma supervened, and eighteen died during the night. Those who survived said there was nothing unusual in the appearance of the flesh except that it was fatter than ordinary. Other similar fatal occurrences have been attributed to turtle curry; but as they have never been proved to proceed exclusively from that source, there is room for believing that the poison may have been contained in some other ingredient. The sardine has the reputation of being poisonous at certain seasons, and accidents ascribed to eating it are recorded in all parts of the island. Whole families of fishermen who have partaken of it have died. Twelve persons in the jail of Chilaw were thus poisoned, about the year 1829; and the deaths of soldiers have been repeatedly ascribed to the same cause. It is difficult in such instances to say with certainty whether the fish were in fault; whether there was not a peculiar susceptibility in the condition of the recipients; or whether the mischief may not have been occasioned by the wilful administration of poison, or its accidental occurrence in the brass cooking vessels used by the natives. The popular belief was, however, deferred to by an order passed by the Governor in Council in February, 1824, which, after reciting that "Whereas it appears, by information conveyed to the Government, that at three several periods at Trincomalee, death has been the consequence to several persons from eating the fish called *sardinia* during the months of January and December," enacts that it shall not be lawful in that district to catch sardines during these months, under pain of fine and imprisonment. This order is still in force, but the fishing continues notwithstanding.—*Sir J. Emerson Tennent.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. J. Z. Laurence shall receive a private answer.

Dr. Cotton's paper on "Sesquichloride of Iron in Phthisis" shall appear as soon as possible.

Falmouth.—The review appeared in No 39, for October, of the *Glasgow Medical Journal*.

Charles Fitzm.—We do not recommend Practitioners. Consult your own family attendant, or else some Physician of repute. All Physicians attend to and understand such cases.

The Silent Mills, or Lancashire in October, 1862 (London: Yates and Alexander), is a pamphlet giving, on the whole, a cheering account of the efforts made by the Lancashire people to relieve their own poor.

Mr. Herapath.—The public is informed that *Mr.* Herapath, of Bristol, the eminent chemist and toxicologist, is a different person from *Dr.* W. Bird Herapath; and that, in applying to one of these gentlemen, care should be taken to specify the right individual.

The Catalogue of *Mr. Samuel Highley's Scientific Educational Collections*, with illustrations, is itself a very interesting educational work, and a glance at its pages will show the latest stage of development of microscopes and of collections of philosophical apparatus.

A correspondent forwards the following handbill from Warwick:—

"Dr. Kirby will give Advice Gratis in all cases requiring Medical and Surgical relief, including Diseases of the Eye and Ear, at his house on the Butts, on Tuesdays, Thursdays, and Saturdays, from Nine to Ten in the Morning."

If Dr. Kirby had advertised that he sold advice at eighteen pence a case, it would have been a shade better. Why does he profess to *give* what others live by selling?

We have to acknowledge the receipt of specimens of Messrs. Letts' Diaries, and of a "Visiting Book for Medical Men," which seems the *ne plus ultra* of portability and completeness.

"Diseased Meat.—Is the Flesh of Apoplectic Hogs Poisonous?"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In answer to a letter in your Number of November 29, with the above heading, I beg to observe that I have known several cases where pigs have died from the accidental admixture of the brine of the salting-tub with their food. One of its ingredients, the nitrate of potash, acts upon these animals as a strong poison, and might, I think, produce the pathological appearances described by the "Country Surgeon."

I am, &c.

Stourbridge, December 6. R. L. Freer, M.R.C.S.L., &c.

Transposition of the Thoracic and Abdominal Viscera.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The usual hour for adjourning the Royal Medical and Chirurgical Society having arrived, I was thereby prevented from replying to the remarks made on my paper read at its recent meeting. In consequence of this circumstance, I shall feel much obliged if you would allow me to state, through your columns—especially in answer to Mr. Partridge's observation, who said, "A specimen of a similar transposition of the viscera was in King's College museum,"—that I could not find any preparation like the one lately seen at Moscow, when I purposely visited the institution he then mentioned. In order, however, to ensure accuracy, I also wrote to Dr. Pollock, the Conservator, who courteously replied to my inquiry, "that at present the collection in King's College museum does not contain any preparation of transposed viscera." Possessing such authority I, therefore, thought justified the assertion enunciated in my communication, namely—"Only four analogous malposition of viscera now exist in the different anatomical collections in London, viz., the College of Surgeons, Guy's Hospital, University College, and St. Thomas's Hospital." As a mistake seems thus to prevail somewhere, respecting the point at issue, perhaps Mr. Partridge will kindly explain the apparent discrepancy, so that any error may be corrected. I am, &c.

Brook-street, W., December 6. John Webster.

On the Arsenical Impurities in Medicinal Bismuth, with a Method of Purification.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The recent case of arsenical poisoning in Wiltshire has brought prominently before the public the fact, that the processes adopted in the manufacture of the medicinal preparations of bismuth are very imperfect, and permit the presence, in these most useful articles in the Materia Medica, of large quantities of a highly dangerous and noxious ingredient—namely, arsenic—in some form or other. It, therefore, becomes most desirable that the attention of manufacturers should be called to this circumstance, in order that they might produce an article free from such dangerous impurities. Since my return from Hendon, I have examined fourteen different samples of this medicinal agent, amongst which were preparations obtained from the dispensaries of the Bristol Royal Infirmary and the Bristol General Hospital, as well as samples from some of the first pharmaceutical establishments of this city, and Clifton also, and in each case have invariably detected the presence of arsenic. Some of these samples have contained as much as 1 grain of arsenic in 433 grains of the article examined; others only 1 grain in 1000 grains. Such quantities, although minute when given in the usual medicinal doses, yet, under a similar combination of circumstances as those occurring in the case in question, might lead to very serious consequences, as it would be impossible to establish the fact of a criminal administration of the poison if bismuth in its present impure condition had been administered medicinally.

Some preliminary experiments have shown me that it is possible to remove the arsenical impurities by a very simple process, and one which would not add much to the cost of the material. On boiling either of the insoluble salts of bismuth with sufficient quantity of a solution of caustic soda or potassa, the arsenic is quickly removed in a soluble form, and the residue, on treatment a second time with the same reagent, and subsequently well washing it by large quantities of water, and decantation, it is rendered perfectly pure and fit for Medical purposes.

I am not aware whether this process has been hitherto proposed; but it has succeeded perfectly in purifying some samples of nitrate and carbonate, upon which I have tried it in my own laboratory.

The occasional existence of arsenic as an impurity in the bismuth of commerce was a fact well known to me, but it was not until my return from giving evidence before the Wiltshire magistrates that I became aware of its almost universal presence; and permit me to express my acknowledgments to Dr. W. B. Richardson for having called my attention to this circumstance; and my subsequent experiments have fully confirmed the truth of his observations.

It is not for me to decide whether this was the source of all the poison in the case in question; however, I think not, for we should then have to imagine that at least one ounce of impure bismuth had been taken by the patient in order to account for the quantity of arsenic found by me; and although all the arsenic had been retained in the viscera of the deceased, yet, by some extraordinary means, the whole ounce of bismuth had been evacuated with the exception of a mere trace, for scarcely one-twentieth part of a grain remained,—a difficulty which, in my opinion, it is impossible to overcome. I am, &c.

Bristol, December 6. W. Bird Herapath.

Medical Evidence.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your very able editorial article on the "Two Murders," suggests inferences favourable to the plan of separating the Medical witnesses of the facts of a case from the Medical exponent of the meaning of these facts. Let one man give the natural history; another the natural philosophy. If Mr. Sequiera had known beforehand that he would be questioned solely on matters of fact, so as to enable a second person to form an opinion upon the legal bearing of such observed facts, we should have had a complete statement. Whereas, knowing that he would be expected to give an opinion, and that, in truth, the jury would think little of the details, and attend chiefly to the opinion—as soon as he had formed his opinion, he seems to have considered that his task of observation was finished.

Mr. Sequiera saw a wound in the woman's neck. From personal observation he soon formed an opinion that it was not self-inflicted. When his mind was made up, then he either neglected to observe those various points which establish this opinion, or neglected to record them as unnecessary. He observed sufficient to satisfy himself, forgetting that his duty was to place the whole matter before other minds, just as it appeared to his own eye.

A Medical witness should never express an opinion. He should be slow to form one. As soon as ever we form an opinion we pursue our observations under the guidance of an hypothesis. The facts which support it are placed in a prominent position. Other facts are either unnoticed, or unrecorded, because they do not tend to advance our argument.

A witness of fact should state all the facts, and be responsible only for these facts. Then we are in a position to form an impartial and safe opinion. Men accustomed to Medico-legal research would put the facts into every possible combination, and select the one opinion out of several which would harmonize the whole under one view.

If it were once established that the Medical witness should merely record his observations, a habit of close, analytical, impartial examination would be encouraged. Opinion would not interfere, like hasty generalization, to prevent exhaustive enquiry. The observer would not be satisfied merely when his own mind was satisfied, but when he had photographed the whole case so as to be able to satisfy those whose reasonings are to be based upon his observations. He would not be looked upon as a partisan. And, in a word, the division of the duty of Medical witness and Medical reasoner would issue in an improved observation of fact, and a more authoritative and convincing exposition of opinion.

I am, &c. W. S. Scholefield.

Pickering.

COMMUNICATIONS have been received from—

Dr. Cotton; Dr. Scholefield; Charles Fitzm., Gordon-square; Mr. Herapath; the Secretary of Pathological Society; Dr. Fincham; J. Z. Laurence; Mr. Freer; Dr. Webster; Dr. Geo. Hill; P. G.; Secretary of the Ethnological Society; Prof. Rolleston; Dr. Whitelaw.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 6, 1862.

BIRTHS.

Births of Boys, 914; Girls, 915; Total, 1829.
Average of 10 corresponding weeks, 1852-61, 1672·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	802	817	1619
Average of the ten years 1852-61	637·0	629·8	1266·8
Average corrected to increased population..	..	..	1393
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	..	8	19	3	4	1	2
North ..	618,210	3	22	18	3	10	19	4
Central ..	378,058	2	10	9	2	14	8	2
East	571,158	3	14	10	4	9	33	4
South ..	773,175	2	35	34	5	14	10	7
Total.. ..	2,803,989	10	91	88	17	51	71	19

APPOINTMENTS FOR THE WEEK.

December 13. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m.; Charing-cross, 1 p.m.

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

Medical Society of London, 8½ p.m. Dr. Gibb, "Illustrations of the Practical Application of the Laryngoscope."

16. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

Hunterian Society, 8 p.m. Mr. Maunder, "Cases of Strangulated Hernia, and a Case of Hysteria simulating Hip-joint Disease."

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

19. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society of London, 8 p.m. Dr. Edward Harvey, "On Continued Fever as it has Appeared at St. George's Hospital during the last Six Months."

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Presenting the advantages of KNOWN COMPOSITION and UNIFORM MIXTURE, combined with moderate price.

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CHLORODYNE.

NOTIFICATION.

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The dangerous expedient of encouraging or advocating the assumption of a name specifically indicating a particular property or remedy, such as Chlorodyne, to spurious imitations and substitutions, on the ground of cheapness, is a subject of surprise and grave reproach, supremely so when the adulteration, sophistication, and tampering with drugs becomes so serious and important a consideration in the successful practice of Medicine and treatment of disease.

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ORIGINAL LECTURES.

CLINICAL REMARKS ON THE TREATMENT OF ACUTE RHEUMATISM BY NITRATE OF POTASH.

DELIVERED AT THE

Westminster Hospital.

By W. R. BASHAM, M.D.

Physician to the Hospital.

GENTLEMEN,—In the year 1848 I brought before the Royal Medical and Chirurgical Society a paper on the "Employment of Nitrate of Potash in Acute Rheumatism, with Suggestions for the Use of Saline Solutions as External Applications in Local Rheumatic Inflammation." That paper was published in the *Transactions* of the Society for 1849. Twelve years have added to the experience detailed in that communication, and have confirmed, in every respect, the principles there enunciated. I endeavoured, on that occasion, to explain the probable mode of action of the salt, and to justify the method of using it in large doses by the example of some distinguished Physicians of the last century. The practice of nearly a century has thus become reconciled by the researches of pathological chemistry, and a true basis has been found, resting on well-ascertained principles, for the treatment of a severe form of disease, which, formidable as it is in its acute stage, has often been rendered still more formidable by the protracted period of convalescence to which other modes of treatment have not unfrequently exposed the unhappy sufferer. During the last twelve years, every case of acute rheumatism passing through my wards has been treated by the administration of large doses of nitrate of potash plentifully diluted, combined with the local application of a saline solution of the nitrate to the inflamed joints. The general average of the duration of the disease is, by this plan of treatment, considerably shortened, and rarely exceeds from three to four weeks.

The most striking feature in an attack of acute rheumatic fever is the intensity of the local inflammation of the joints, and the special tendency that co-exists for an inflammatory attack to invade the heart, either by inflammation of the pericardium, exocardium, or the valves of the left ventricle. There is present in acute rheumatic fever a very striking and exceptionable state of the blood, marked by the predominance or great excess of the fibrin of the blood. The average proportion of fibrin in healthy blood is about two parts in a thousand, but in acute rheumatism it often exceeds six: nor is this all—the saline constituents play an important part in the composition of this fluid, and ordinarily may be estimated at about twelve parts in a thousand. But in acute rheumatism the proportion descends as low as eight—or even seven. Here are two important pathological facts,—the absolute excess of fibrin, and the absolute decrease of the salts. Now, although we are not certain that we can demonstrate the positive relation which the saline constituents bear to its fibrin, yet by analogy we can infer that some important connexion exists between them. Thus, the fibrin of the blood will not separate or coagulate, as it is called, if blood be received into a vessel containing certain neutral or even alkaline salts. But the most important fact is that observed by Dr. Stevens, in the state of the blood in a person who, by mistake, had swallowed an ounce of nitre in solution, mistaking it for Glauber's salts. In those days it signified little what symptom a patient exhibited, or what accident he might suffer, the first act was to open a vein. This man, who had swallowed this large dose of nitre, was bled, and, to the astonishment of Dr. Stevens, the venous blood came from the vein almost as bright as arterial, and continued fluid, without exhibiting the usual characteristic of spontaneous coagulation.

Now, let me apply this fact to the treatment of acute rheumatism by nitrate of potash. First, we know that in the middle of the last century large doses of nitrate of potash were successfully given in this disease. Secondly, we now know that nitrate of potash, circulating in the blood, prevents the separation or coagulation of the fibrin. And, lastly, in acute rheumatism we know that there is not only a large excess of fibrin in the blood, with a diminution of the salts, but we know, also, that there is a special tendency for this fibrin to escape from the circulatory fluid, and to form the exudative products which are thrown out in the inflamed tissues, and which constitutes such an element of danger when it is poured out on the pericardial or exocardial surfaces, or forms deposits on the aortic or mitral valves. It is a fair and rational inference, then, that a salt which can prevent the coagulation or separation of the fibrin when present in the circulatory fluid in a person in comparative health, will operate in a similar manner where the blood is contaminated by excess of fibrin.

The chances of inflammatory fibrinous products being poured out are thus lessened, and time is obtained for the natural processes to reduce the excess of fibrin and to restore the blood once more to the standard of health. Such, then, is the reasoning applied to the employment of nitrate of potash in acute rheumatism. But recollect that these doctrines are applicable alone to that form of rheumatism which is usually denominated acute, and which is always accompanied by manifest local conditions of inflammation about the joints—principally of the hands, elbows, shoulders, ankles, and knees. This treatment is not adapted to those forms of rheumatism which are called either chronic, or muscular, or fibrous, and characterised chiefly by wandering pains in the limbs, or various parts of the body, and which are never accompanied by any disposition to local redness or tumefaction. If the principle be steadily kept in view on which the nitrate is employed, there is little chance of the error of employing it in those forms of rheumatism which are not dependant on, or connected with, a hyperinotic state of the blood. I cannot forbear noticing here an objection which has been raised by Lehmann, to what he conceives to be a pharmacological error on the part of those Physicians who believe in the antiphlogistic power of the nitrate of potash. He says it is difficult to draw the conclusion, that nitre can prevent the formation or augmentation of fibrin in inflammatory blood simply because coagulated fibrin is soluble in a solution of that salt. In such a conclusion I desire to express my perfect concurrence. I have never adopted such reasoning: I have always believed that the nitrate of potash does not lessen the development or formation of fibrin in the blood, or in any way regulate the quantity formed. The opinion which I have ventured to express, and the explanation I have put forward to interpret the action of this salt in inflammation, is based on the following facts:—

1. Nitrate of potash, when present in the blood of a living animal, retards or suspends the separation of the fibrin.

2. In inflamed blood, there is a considerable increase in the proportion of fibrine, and the essence of the inflammatory process consists in the exudation or escape of this constituent of the liquor sanguinis, and its deposit in the tissues.

3. The presence of nitre, even in small quantities, in the circulating fluid, suspends this disposition of the surplus fibrin to form exudations; while other agents, or even natural causes, may be operating to reduce the proportion of fibrin, and bring it within healthy limits.

The first is a physiological fact, proved in its direct applicability to man by Dr. Stevens' case of the non-coagulability of the blood of one who had swallowed a large quantity of nitre by mistake. The second rests partly on chemical, partly on pathological proof, and cannot be disputed. The third rests purely and solely on clinical observations: it is, to a certain extent, hypothetical, and incapable of direct proof—but it is based on the constant sequence of marked and striking exemptions from the usual consequences of the inflammatory process, and which are not observed to follow with so much certainty or regularity when other and different means are employed. Lehmann further states an objection to the assumed properties of nitrate of potash, founded on the quantity of nitre usually administered in the twenty-four hours as being inadequate to the solution of the fibrin present in the blood. Assuming the quantity of blood to amount to twenty pounds, and that the fibrin amounts to three parts in a thousand, then the quantity of fibrin would be somewhere about 300 grains, and he contends that 200 grains of nitrate of potash would be necessary to dissolve this quantity, whereas not more than ten grains are administered every two hours, and the whole quantity in 24 hours would not exceed 100 or 120 grains. And as the salt passes off so rapidly by the kidneys, it must be prevented from accumulating in the blood. But, in answer, it may be

stated that patients constantly take 480 grains in the twenty-four hours when freely diluted. That the salt passes rapidly off by the kidneys is well known; but by frequent repetitions of the dose of the salt, a sufficient quantity is constantly kept present in the circulating fluid, not to dissolve all the fibrin, but to retard or prevent any excess forming inflammatory exudates when a state of hyperinosis exists. This author further states that it would be very singular and inexplicable why other salts which equally possess the power of dissolving fibrin should not be classed with nitre as special antiphlogistics; for instance, alkaline carbonates, which are remarkable for preventing the coagulation of the blood. It is not without hesitation that I venture to remind so distinguished a physiological chemist, that other salts are equally efficacious, and that the alkaline carbonates have been proved by clinical observations to possess this power of suspending or modifying the exudation of fibrin. But many of these salts have special physiological properties, some acting as purgatives, as the sulphate of soda; others as diuretics and purgatives, as the acetates. The alkaline carbonates have also been proved to exercise modifying properties; but the objection to their employment rests, as has already been shown, on their marked interference with the functions of the stomach when given in sufficient quantity to exercise an influence over inflammatory exudations. The nitrate of potash in these respects possesses certain negative properties which adapt it for administration in preference to other salts.

When first I commenced the employment of the nitrate of potash in acute rheumatism, and, indeed, up to the period of the communication to the Medical and Chirurgical Society on this subject, the nitrate was used in co-operation with other remedies, such as calomel and opium, antimony, and even colchicum. But I have long since ceased to employ any of these latter remedies, experience having convinced me that the real efficient agents in this acute disease are opiates and salines. Brisk purgatives in some cases are desirable at the outset of the treatment; but, subsequently, they are not necessary. With these prefatory and explanatory remarks, I shall now select for illustration several cases which have recently been under treatment, and which have been conducted strictly in accordance with these views.

The case of A. C., eight years of age, will afford an excellent example, because the symptoms have been severe at an age when the susceptibility to heart disease is the greatest, and also because the heart, or rather the pericardium, was affected in a very prominent manner, even to the effusion of fluid, and yielded most satisfactorily to that plan of treatment, by nitrate of potash and opiates, to the exclusion of all other remedies—save the tonics which were necessary during the stage of convalescence. I am indebted to Mr. Middleton, at present House Physician to the Hospital, for the notes of this case. The child was admitted on Februrary 14, 1860, with severe symptoms of febrile disturbance. The countenauce was flushed, the skin dry, the tongue creamy and moist; there was neither redness nor swelling of any of the joints on admission, but every joint seemed painful, for the child shrieked upon the slightest motion of its limbs. There was no rash on the skin. The pulse was 108, and the heart's sounds were reported as natural. It appeared that, previous to admission, she had a bath in the evening, and went afterwards to market with her mother, and probably caught cold, for she rapidly lost appetite, became thirsty and irritable, and passed into her present state. She was ordered two grains of calomel, and four of the antimonial powder (James'), on admission.

The next day the type of the fever declared itself by the ankles and wrists becoming red, swollen, and painful. There was much restlessness; the bowels had acted; the tongue was less furred, and the skin was inclined to moisture. She was ordered ten grains of nitrate of potash, with ten of the bicarbonate, to be taken every two hours in effervescence, with citric acid, and this form was adopted as being most palatable, the child being very fractious, and, at bed-time, eight grains of Dover's powder. The wrists and ankles were enveloped in spongio piline, moistened with a saturated solution of nitrate of potash. She passed a moderately quiet night under the influence of the anodyne; but, on the morning of the 16th, the breathing was observed to be hurried and irregular, and there was frequent short, hacking cough. The countenance was anxious, the pulse 120, and an examination of the region of the heart detected the commencement of pericardial inflammation. This was manifested by the vibratory or rubbing sensation conveyed to the hand, and to the to-and-fro friction murmur heard by the ear at the base of the hand, less audible at the apex, and to the left of the mamma. The rheumatic symptoms in the joints remained the same. The amount of anodyne was increased, and the saline treatment continued. On the 17th the respirations were 36, pulse 130, and the heart's action very tumultuous. The local rheumatic symptoms were on the increase, and the skin freely perspiring; the countenance very anxious and flushed. Urine of high specific gravity, and loaded with lithates. The to-and-fro friction murmur continued very audible, but at the apex of the heart, and to the left, the valvular sounds could be faintly heard of their natural character. With a little attention these could be distinctly made out, notwithstanding the friction sound; and thus the valves of the heart were, at present, free from mischief. A blister was applied in the position of the apex, and a little beneath and behind the left mamma, the region of the base being left free for examination. On the 18th the blister had risen well, and was ordered to be kept open with savine ointment. The child continued to take the nitrate of potash, with the Dover's powder, at intervals. The febrile symptoms continued; the respirations 30; pulse 130; face flushed, but less dusky in hue; the heart's action very tumultuous, but there had been, during the last twenty-four hours, a gradual, but perceptible diminution of the to-and-fro friction murmur, and the vibration could no longer be felt by the hand over the base of the heart. There could be no doubt that the inflammatory condition of the pericardium at the base of the heart had been followed by effusion, and the surfaces which, while covered with plastic effusion and in contact, gave rise to the sense of friction, had now become separated by the intervention of serous fluid, and the rubbing sound was no longer heard. The blistered surface discharged freely; the urine had increased in quantity, was of a lower specific gravity; the bowels were moderately active, and the patient had been able to take small quantities of beef-tea at intervals. The joints were less swollen and less painful, and the child could move its wrists without much pain. But now commenced another class of symptoms, which, for a few days, gave rise to the apprehension, that some of the meninges of the brain had become the seat of rheumatic metastasis, and, as happens in rare cases, the dura mater, probably, had partaken of the inflamed condition to which the fibrous tissues in the acute rheumatic inflammation are specially susceptible. The restlessness, fractiousness, and shrieking, were far greater than mere febrile irritability could explain, and they came on too suddenly to be placed to the credit of mere childish bad temper. The pulse continued very frequent; these symptoms continued through the night of the 18th; but towards the morning of the 19th she became calmer, and fell into a quiet sleep for several hours. The nitrate was continued. The following night and day was disturbed by a return of restlessness, fractiousness, and shrieking. But the state of the eyes and general expression of the countenance were not characteristic of the early stage of arachnitis, of which the shrieking, restlessness, rapid pulse, and febrile condition, might otherwise have been thought symptomatic. During the followingtwo days it was impossible to make a satisfactory stethescopic examination of the heart, from the great irritability of the child on the approach of any one to the bed-side. A faint rubbing was felt when the hand was placed over the præcordial region. The rheumatic inflammation of the hands had disappeared, and mobility was not painful, judging from the manner in which the hands and fingers were voluntarily used. The pulse continued rapid; there was an evident improvement in the appetite, as the child took its food with avidity. She was ordered the infusion of bark and nitric acid, and the salines were discontinued.

On the 20th, the report states that she appears regaining strength. Countenance improved; skin moist and cool; tongue cleaner; the joints free from pain. Information was obtained from the mother that the child is naturally of a very fractious and irritable temper, but seldom has anything been witnessed in illness equal to the singular irritability of this child. What was at first feared might be symptomatic of meningeal mischief, appeared now as nothing more than an uncontrolled peevishness. The patients in the ward were distressed and kept awake by this child's perverseness. The moment any one approached the bed her shrieking began; if any of us attempted to examine the heart, she would fight and shriek, and completely baffle our intentions. During this

day, by a little coaxing and the exercise of a large amount of patience, you will recollect that I succeeded in satisfying myself that the friction sound was not audible, and that the valvular sounds were free. The pulse was much softer. Late in the day of the 20th, some serious change in the character of her symptoms are recorded. The countenance became anxious, and the face flushed; the eyes had an excessive brilliancy; the scalp was rather hot; the tongue moist but creamy. There was constant twitching of the muscles about the mouth, and the arms were moved and jerked about, with frequent picking of the nose. The motions and urine were passed involuntarily. The heart's sounds were audible, without any friction sound or other indications of a morbid character. The pulse was very frequent, small and wiry. I had no hesitation in attributing these untoward and unpromising symptoms to exhaustion, brought on, in all probability, by the great irritability and fractiousness of the patient, aggravated by the debility incidental to the attack of rheumatic fever. A moderate allowance of wine was at once ordered, and soon after we witnessed the proof that this estimate of the cause of these symptoms was the correct one. She became more quiet, slept for an hour or two; and the wild state of expression and excitement calmed down. I am prepared to maintain, that if the old principles of treatment had been followed—if we had interpreted this excitement as the necessary sequel of inflammation—if we had combatted that supposed inflammation by depletory and exhausting remedies, I believe that the pulse would have increased in frequency, the skin would have been cold and clammy, the tongue brown and dry, and the patient would have rapidly sunk into that adynamic state from which no treatment could have rescued her. I remember hearing it whispered, that it was bold practice to give wine so immediately after the worst symptoms of pericarditis had scarcely subsided. But you will recollect my observations, that the necessity for stimulants must be governed by the exigencies of each individual case; and if you will take for your guide the intensity of the heart's sounds, as well as the character and force of the pulse, you will seldom need any other to lead you in the right road. If you find in any case the pulse become more rapid, more compressible, and even thready, and, when you listen to the sounds of the heart, you find the intensity of these sounds are decreasing, you should never mind what the antecedents of the case may be—administer wine immediately. The pulse will become less frequent, it will have more power, and the sounds will become more audible and stronger. But, in such circumstances, the quantity of wine must be regulated by the symptoms produced. A certain improvement in the state of the circulation may be maintained by a very small quantity of wine, if it be judiciously administered. A few ounces in one case will effect what a bottle cannot accomplish in another. The most effective way to administer wine is to watch carefully the period when the stimulating effect on the circulation has become evident. Commencing with a small quantity (a table-spoonful), this should be repeated every half hour until it has become apparent that its influence is felt. Then, cautiously, the interval between each repetition may be increased, and the salutary effect may be thus maintained with more advantage to the patient than if the half-hour quantities had been continued after the desired effect had been produced. The great practical matter to attend to in these cases where the necessity for wine exists, is to take care that the influence of one dose has not passed away before the next is repeated. If it should, double, treble the original quantity will not reanimate the patient. Nutrition, in these cases, of the simplest kind should always be combined with stimulation. She was ordered the infusion of bark and chloric ether, in lieu of the nitric acid.

The next day.—The pulse is reported to be less wiry, and softer. There was much less irritability. There had been some sleep. She was far more manageable, and her manner much quieter. The muscular twitchings of the mouth had decreased, but the motions and urine still passed under her. There was every reason to believe that this did not arise from unconsciousness, as the expression of her countenance and her answers belied such a supposition. The patient permitted the heart to be examined without resistance. There was no friction murmur. The sounds of the heart were distinct, and the second sound clear and audible. Over the base of the heart, and extending in the direction of the large vessels, a loud murmur, synchronous with the systole, was heard. The food was readily taken, and the wine at intervals of every two hours. The pulse continued to increase in firmness. The pulse fell to 90. The tongue was clean, and appetite good. Excretions retained. But for several successive nights she became, towards evening, fractious and irritable. Some threatening of relapse of the rheumatic symptoms in the wrists occurred. She was ordered the nitrate and bicarbonate, with lemon-juice. The following day the cardiac symptoms indicated a return of the pericardial inflammation. The sounds of the heart became very indistinct and muffled, and there was some irregularity of the impulse. The left wrist became swelled, as if from effusion into the wrist-joint. Next day, the to-and-fro murmur was again audible at the base of the heart, but it was limited to one well-defined spot, which might be covered with a shilling. The area of præcordial dullness seemed increased at the base, but not at the apex. The wine and nutrients were continued. The wine amounted to four ounces in the first instance, and subsequently to six, in the twenty-four hours.

On the 26th, the pulse was 108, firm and regular; the excretions natural; urine clear; sleep continuous and natural. The heart's sounds were again heard clearly; the valvular sounds without interference. At the base was heard a slight friction murmur. The swollen state of the left wrist subsided, and there was free motion in both hands. Appetite good, and daily gaining strength. On the 28th no murmur was audible. The sounds of the heart are reported to be free from any morbid indication; impulse feeble. From this date her progress towards convalescence, although it did not continue uninterrupted, as occasionally restless nights returned, and some conjunctival inflammation retarded her recovery, yet, by the first week in March, she was able to sit up, was placed on middle, and subsequently full, diet, and ultimately left the Hospital perfectly convalescent at the latter end of March.

There are two points of interest connected with this case. 1. The remedial power of the nitrate of potash in controlling and modifying the local inflammation in the joints, and lessening the intensity of the cardiac complication; and, 2. The salutary effect of moderate stimulants at a period and under circumstances which formerly would have been accepted as signs of contra-indication, but which, at the present day, read by the light of more extended experience, and tested by the indications of the stethoscope, are accepted as expressive of want of power, and needing the agency of stimulants and nutrition, rather than depletion and antiphlogistics. It is not a little singular that a remedy so efficient in rheumatism, so unequivocally remedial, tested by the experience of many hundred cases which are uniformly treated here on one definite plan, should scarcely yet be recognised by the Profession as specially applicable to the treatment of acute rheumatism. No doubt it takes a long time for a remedy to win its way into the confidence of the Profession. It is not sufficient that the principles on which it is employed are sound and intelligible. It must yield in the hands of each Practitioner similar and uniform results; and, through the testimony of the many, it at last secures for itself a permanent confidence in its utility. It is a century since a most distinguished metropolitan Physician asserted its pre-eminent efficiency in acute rheumatism; and there have not been wanting Physicians in recent times to bear witness to the success of cases treated by this salt. In France its efficacy has been recognised by Gendrin, Martin Solon, Bonnet, and others, and yet it is far from being accepted in this country and employed as universally as its utility demands. And why is this? I think the explanation is not difficult. Sufficient attention has not been paid to the fact, which I have never failed to inculcate to all the pupils of this Hospital, and have laboured most earnestly to engraft it on your minds, that it is only in the acute inflammatory rheumatism—the form of disease which is usually termed rheumatic fever—that this salt proves efficacious. Acute inflammatory symptoms in the joints, with febrile disturbance, are the indications for its use. But the term "rheumatism" is, unfortunately, of very wide and inexact application. It comprises many forms of very different morbid processes. Wandering pains in the limbs are called rheumatism; muscular pains are called rheumatism; aching pains from whatever cause, the sequel of malaria, of syphilis, of mercury, all are recognised by this common term. Certain inflammatory conditions affecting the joints, more particularly of females,—a true arthritis, sometimes called rheumatic arthritis,—are examples of the inexactness with which one common term continues to

be applied to very different morbid conditions. And here is found the explanation of the apparent failure of nitrate of potash in the treatment of rheumatism. It has been tried and used in cases in which it is totally inapplicable. I have frequently had the remark made to me by Practitioners, that they have used the nitrate and found no advantage in its action. Upon inquiry, it has always been proved that the cases were not acute rheumatic fever, but some form of rheumatism, the pathology of which differed materially from that of the acute disease now under consideration. I continue, however, to receive the testimony of many able and distinguished Physicians, who have carefully employed the nitrate in appropriate cases, that its efficiency is equal to what Dr. Brocklesby claimed for it, and that the results to which I called the attention of the Profession in 1848 have been confirmed; and that cases thus treated are, to a great extent, exempted from cardiac complication, and that, if attacked with heart symptoms, the inflammatory process is mitigated and controlled; and also that the duration of the acute stage and the intensity of the inflammatory symptoms are diminished; and the convalescent period, which every one who recollects when acute rheumatism was treated by bleeding, calomel, antimony, and opium, knows to have been most tedious and protracted, at the present time is seen to be moderate and limited, the patients quickly recovering their vigour and bodily energy. One cause of this more favourable stage of convalescence arises from the diminished destruction of the blood corpuscles which occurs in cases of acute rheumatism treated by the nitrate of potash. That peculiar pallor and exsangueous look which was so characteristic of the convalescent stage of patients treated by bleeding and antimony, is rarely seen to the extent formerly witnessed. There is thus less reparative work to be done. Nutrition and stimulants in moderation more quickly restore the blood to a healthy and invigorating condition; and the healthier, even ruddy, aspect, which quickly follows such a treatment, is the best proof that these principles of therapeutics are both practically and theoretically sound. Let me, lastly, ask your attention to a few brief remarks on the indications for wine and stimulants in these cases of acute disease. I believe that no better or safer guide can be found than the state of the pulse, interpreted by the sounds of the heart. I say "interpreted by the sounds of the heart," because the condition of the pulse must be judged relatively—not absolutely. The want of power, the feebleness, the compressibility of the pulse cannot be estimated correctly by the finger alone. A pulse, moreover, may feel full and soft to the sense of touch, and yet the vital energies are failing, and, if not supported, will succumb. But, if the stethescope be employed to verify the suggestions of the pulse, there is little liability to error. A pulse may be very small and compressible to the finger, and yet the impulse of the heart be good, and the sounds clear and distinct. In such a case no stimulants are needed. But the pulse may, to our senses, be full, and apparently with some resistance to compression; but the impulse is imperceptible, and the sounds feeble and indistinct. Here, wine is needed, and, in the course of a few doses, you may listen at the præcordium, and you will have sufficient reason, in the more vigorous sounds now heard, to be convinced of the correctness of the indication which the stethoscope has afforded. There are other circumstances which will also guide you in the administration of wine. A failing temperature of the skin, a tongue becoming red and dry, confusion of thought, and a tendency to incoherency, all are suggestive of failing energies, and the propriety of a liberal allowance of stimuli. But the stetheseope will give warning long before the latter signs are present, and will enable you to keep the patient up with far less quantity, and at less hazard, than when the later indications have tardily suggested that stimulative measures are imperatively required.

Glasgow Southern Medical Society.—At the eighteenth Annual Meeting of this Society, held on Thursday, the 4th inst., the following gentlemen were elected office-bearers for the ensuing session:—*President*—Dr. James Stewart. *Vice-President*—Mr. Edward Mcmillan. *Treasurer*—Dr. H. R. Howatt. *Secretary*—Mr. R. S. Paton. *Seal Keeper*—Dr. R. S. Corbett. *Court Medical*—Dr. H. R. Howatt—Convener; Dr. Dunbar; Dr. James Morton; Dr. James Stewart. *Officer*—Thomas Robertson.

ORIGINAL COMMUNICATIONS.

NOTES ON CAUSES OF EARLY MORTALITY.

By J. WHITEHEAD, M.D.

No. III.

(Continued from page 626.)

The subjects of the preceding inquiries belonged (except some of the last thousand of advanced age) to the poorest class of the population, whose necessities compelled them to seek the aid of public charities. I have long felt persuaded, however, that childbearing, as a rule, is a much more precarious process among the educated and wealthy than among the untaught and ignorant classes. The equably-poised temperamental elements displayed in the healthy constitution of the contented peasant, unracked by mental strain—the *temperament tempéré*—is the happy condition best calculated to encounter shocks and vicissitudes with ease and safety. The system of the highly-educated female is a very different piece of machinery. Subjected from early childhood to an exhausting mental discipline, whatever may be the lack of capacity or inaptitude for it, and often regardless of the physical culture so necessary to the preservation of health, the vital organic tone becomes early depraved, and the nervous element either disproportionately developed, or rendered too morbidly sensitive to sustain the body with comfort under the exercises essential to its own well-being.

The following particulars bearing on this subject are extracted from the histories of 753 mothers of the educated and wealthy classes, all derived of parents similarly circumstanced as to cultivation and social position. Their ages range from 19 to 43, and all were, at the time of the enquiry, either bearing or nursing children. Their mean age was 30·5 years; the average number of their pregnancies, including that in some of them not yet completed, 4·83; the average of their abortions, 1·56, yielding a lower estimate of pregnancies, but a great preponderance of untimely events. The results for the two classes stand thus in contrast:—

	Average Age.	Average of Pregnancies.	Average of Abortions.
Indigent class	30·36	5·20	·53
Wealthy .	30·50	4·83	56

The disparities here represented as existing between two classes of mothers very differently circumstanced, are, in my belief, by no means fortuitous or exceptional; a greater number of children being brought to perfection and reared, and fewer abortions experienced, by the untaught generally than by the educated.

The preceding statements have reference only to abortions which happen during the middle periods of pregnancy, when the various organs of the fœtal body, even at the earliest date of this range, are clearly defined, and the sex distinguishable. These, however, constitute but a small proportion of the total amount of this class of events. The death and voidance of the embryo at earlier periods is a much more common occurence, though its actual frequency may be difficult to estimate. Were the so-called false conceptions, and the delayed and other catamenial irregularities, to be included in the category—as, indeed, they ought, being in most instances the result of, not false, but of real conceptions—the sum of abortions would probably equal, at least, that of successful pregnancies. A wife, of two or three or half-a-dozen years' date, applies for relief on account of inability to discharge her household duties with satisfaction, or to enjoy the comforts around her. Free from all tangible organic ailment, she is nevertheless an invalid. Healthy before marriage, she has not been well as a wife; she has no offspring. It is not uncommon with her friends, under these circumstances, to attribute her alleged indisposition to disappointment.

Such a person will probably state, that soon after marriage, her monthly visitations, regular and comfortable previously, have become changed in character or periodicity, and are attended with suffering. Sometimes delayed, occasionally too frequent, the product is unusual—fibrinous or membranous, broken, or grumous; now and then offensive; and each monthly crisis constitutes a paroxysm of serious illness. She loses flesh, and strength, and mental elasticity, and is chided for being mopish.

Another, since marriage, has had the menstrual function delayed to the fifth or sixth week, or longer, when a hæmorrhagic change takes place, which is looked upon as an abortion, and probably was so; and for years afterwards she has periodical metrorrhagia or other form of irregularity, with distressful suffering, but no pregnancy,—or, at least, no offspring.

In other cases, to the birth and comfortable nurture of one or several children, succeeds one or more abortions, then menorrhagia, with morbid product and dysmenorrhœa, anæmic debility, and, sooner or later, some form of organic mischief—commonly of the lungs or heart, and all without any clearly assignable first cause.

It is by no means uncommon to hear a woman, thus or similarly circumstanced, declare that she has miscarried six, or eight, or ten times in the space of one year; but her statement is seldom credited in this sense. The phenomena she describes are commonly classed under the vague denomination of dysmenorrhœa or hysteria, without reference to cause. It is not improbable, however, that the patient's own interpretation was the correct one; for, under the various forms of morbid irritability of the uterus and its annexes, conditions of daily frequency, that special and all-important process which nature sets up consentaneously with conception, for the purpose of forming and organising the primary envelope, being frustated in the onset, the fertilised ovum, no adequate means being provided for its reception and accommodation, is thrown off soon after its arrival in the uterine cavity. There can be no room to doubt that accidents of this kind are much more frequent than is commonly supposed or believed.

Thus, the highest rate of mortality of the human product takes place, in all probability, during the tenderest state and earliest stage of its existence. It is scarcely questionable, indeed, that abortions are, by far, the most common during the first three months of pregnancy, and especially during the first third of this period; but, owing partly to the minuteness of the object voided, sometimes to its partial dissolution, or shrinking into a shapeless, shreddy mass, and, perhaps, also to the familiar frequency of the occurrence, the embryo is suffered to pass away unnoticed and unsought for.

After the third month and upwards to the sixth, such events are deemed of greater moment, because commonly attended with keener suffering, and not seldom with exhausting hæmorrhages. The fœtus, moreover, too large to be shrivelled down or concealed by coagula, is easily detected. It is at these periods that such cases are more especially brought under the notice of the Medical Practitioner; while, at earlier stages, his aid is not solicited; or, if so, it is generally to remedy sequences, and at a time when every primary evidence of conception has passed away.

Of abortions during the second three months, that is to say, from the latter part of the third to the end of the sixth, the greatest number take place in the first, a smaller number in the second, and the fewest in the third portion of this term. Thus, of 452 such cases which occurred under my own notice at the St. Mary's Hospital, and published with others in 1847(a), there were 275 in the first, 147 in the second, and 30 in the third division of this period; standing, for these respective epochs, in the co-ordinate relation of 9, 5, 1. Of more than 2000 similar cases since recorded, the results are nearly the same, the difference amounting only to a small fraction for each item, not sufficient to change the proportions above stated.

In the same space of time during which those 452 abortions were registered, there occurred, among the same class of patients, 115 premature births—32 in the seventh, 55 in the eighth, and 28 in the ninth month. Of these, 85 were still-born, and 30 living at birth, of whom only four survived to the end of one month.

Thus it will appear, that for every premature birth during the last three months of pregnancy, there are four abortions during the preceding three months. And taking it for granted that the number of such events during the first three months exceeds those of the second in the same ratio as the latter do those of the third—which is by no means improbable—then the relative frequency of immature births in the first, second, and third epochs of pregnancy of three months each, will stand in the progressive order of 16, 4, 1.

Supposing, further, that of the 43,752 children still-born in France in 1858(b), 20,000 were premature, which is doubtless quite within the actual estimate, the number of abortive births in that year, exclusive of the premature, would, according to the preceding mode of calculation, amount to the sum of 1,280,000, against 969,343 live-births, all included.

Should it prove, moreover, that in the aborted ova the preponderance of males over females, as compared with their relations in still-births, goes on to increase in the same ratio that the latter are known to do in comparison with those born alive, the number of males conceived would be more than double that of females. This, however, is scarcely probable.

(a) "Abortion and Sterility," p. 249. Churchill: 1847.
(b) "Ann. de l'Econ." pol., 1861, p. 10.

A SUCCESSFUL CASE OF OVARIOTOMY.

By F. A. STUTTER, M.D.

E. H., aged 23, had been the subject of ovarian dropsy for five years. She believed that the swelling first commenced on the left side, but of this she was not quite certain. The catamenia had been regular, and she had enjoyed tolerably good health until the last twelve months.

About twelve months ago her health began to fail; she became debilitated and much emaciated; in spite of these symptoms, however, she married and became pregnant. From the fifth month of her pregnancy she had several attacks of severe pain in the abdomen, with tenderness on the slightest pressure, which still further reduced her, and at the end of the seventh month and a-half her condition was such as to render the induction of premature labour advisable, which was accomplished by detaching the membranes from the uterus with a sound. She gave birth to a living child, recovered rapidly from her labour, and began to improve in health from that time. The catamenia appeared at the middle of December. She still suffered from the distension and weight of her large ovarian tumour, and was anxious for something to be done to relieve her. After laying the danger of the removal of the tumour fairly before her, and consulting with Mr. Hutchinson (who saw the case with me at this time, and afterwards most efficiently assisted me at the operation), it was determined to perform ovariotomy.

Ovariotomy.—The patient was at this time pale and greatly emaciated; the abdomen distended from the pubes to ensiform cartilage; fluctuation very distinct; percussion in both loins clear; pulse small, average 80. Spirits good.

Operation, assisted by Mr. Hutchinson, Dr. J. Hughlings Jackson, and Mr. Muriel, January 5, 1862.

The usual precautions as to heat of room, etc., were adopted, and the patient was put under the full influence of chloroform. An incision, large enough to admit the hand freely, was made down to the cyst. Adhesions of a moderate firmness were discovered over a large extent in front. These were with but little difficulty broken down, and the cyst was then tapped with the large trocar. As it was drawn externally, other cysts came in view, and some of these required to be emptied before the mass could be delivered. When it was brought externally, the pedicle was found to be thin and of good length. It was at once secured by the caliper clamp. The tumour was cut away several inches above the clamp. The wound was closed by hare-lip sutures, which included everything except the peritoneum. The patient bore the operation well, and was removed to bed in a very satisfactory condition.

But few remarks are necessary as to the treatment after the operation. No food or medicine was administered by mouth for three days, only ice and iced water being taken. A suppository of opium was administered immediately after the operation, and repeated night and morning for two days. The clamp was removed on the fifth day, and the pins on the seventh. The pulse ranged between 120 and 130 for about four days, and then gradually fell. The catamenia appeared the eighth day after operation. The wound united by first intention, and the patient made an uninterrupted recovery.

The woman menstruated only twice before she became pregnant. She is now expecting her confinement.

Postscript.—On December 4 this patient was delivered of a female child, and everything connected with her confinement went on well.

Farnboro' House, Upper Sydenham.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY
JONATHAN HUTCHINSON,
Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,
AND BY
J. HUGHLINGS JACKSON, M.D.
Physician to the Metropolitan Free Hospital.

SAMARITAN HOSPITAL.

FOUR CASES OF OVARIAN DISEASE.

(Under the care of Mr. SPENCER WELLS.)

[From notes by Mr. E. PARSON, House Surgeon.]

Case 1.—*Ovariotomy Commenced, but not Completed, on Account of Pelvic Adhesions—Temporary Recovery—Death from Rupture of a Cyst into the Peritoneal Cavity.*

M. G., aged 46, married, admitted October 4, 1862. She had never been pregnant, but the catamenia had been regular until eighteen months ago. Since then had only seen occasional clots. Between three and four years ago, she was attended by Mr. Chard, of Pimlico, in a severe attack of ovaritis or pelvi-peritonitis. In November, 1861, her friends first noticed increase in size, and since then she had gradually increased. Mr. Wells saw her four months ago, and, as she was suffering greatly from distension, it was arranged that Mr. Chard should tap her, which he did, and removed between four and five quarts of fluid. Her girth was lessened from thirty-seven inches to thirty-two, and the catamenia reappeared; but she soon began to increase again in size. On admission the girth was thirty-eight inches. The ovarian cyst filled the abdomen, extending to within an inch of the ensiform cartilage. The uterus was large, heavy, central, and not movable, but no portion of the tumour could be felt below the brim of the pelvis. It was agreed, in consultation with Dr. Savage, to commence ovariotomy, but to be prepared for a close connection between the uterus and tumour.

Operation, October 6.—Professors Vanzetti, of Padua, Porta, of Pavia, Esmarch, of Kiel, Neudörfer, of Prague, Stabel, of Christiana, and many other visitors, were present. Mr. Wells explained, before commencing the operation, the nature of the difficulty which he anticipated. After exposing the cyst by an incision five inches long, from the umbilicus downwards, and separating a piece of omentum, which adhered both to the cyst and to the parietes, the cyst was tapped, and ten or twelve pints of fluid withdrawn. Then, on passing the hand around the cyst, Mr. Wells found the attachments around the uterus so close and extensive that he would not attempt to separate them. On removing the trocar there was very free bleeding from the wound in the cyst wall, and it was necessary to tie a large artery and accompanying vein on both sides of the puncture. Mr. Wells cut off the ends of the ligatures short, and turned the knots inwards, so that when detached they might fall into the cavity of the cyst, and escape at the next tapping. The wound in the parietes was then closed by wire sutures.

She went on very well for three days, without pain, vomiting, or flatulence. On the fourth day the catamenia appeared. Next day, after a restless night, an eruption of urticaria appeared on the legs and thighs. On October 11 the last of the sutures was removed, the wound being well united. On the 13th she was rather sick and thirsty, but this went off after the bowels had been cleared by an enema. She improved, but was occasionally sick and feverish, and a few drops of pus exuded daily from the tracks of the sutures, but she went home on the 19th. After a few days, Mr. Chard wrote to Mr. Wells, saying, that she was in "an unsatisfactory state, neither ill nor well;" and this continued until, quite suddenly, on October 27, she was seized with sudden and violent pain, vomiting, and depression, attributed to peritonitis from rupture of a cyst, and she died a few hours afterwards.

On examination of the body by Mr. Chard, Dr. Duncan Smith, and Mr. Wells, the peritoneal cavity was found to be filled by the contents of a large ovarian cyst. It was not clear whether it was the cyst which had been opened, or another; for the site of the trocar puncture could not be found, nor could the ligatures. They had, probably, escaped with the fluid. The examination was made under considerable difficulties, in a very small room. It was quite evident, from the difficulty experienced in separating the cyst after death, that it could not have been done during life with a hope of success.

Case 2.—*Ovarian Cyst—Ovariotomy—Recovery.*

E. W., single, aged 24, admitted October 2, 1862. She had complained of frequent pains in the abdomen, with rigors and subsequent feverishness, for the last three years; and had thought her body larger, but was not quite sure of it until last November, when a distinct swelling was perceptible towards the right side, which had gone on increasing. Dr. Sadler, of Barnsley, wrote to Mr. Wells in September, stating that her girth was thirty-four inches, and that he thought the case a very favourable one for ovariotomy. Menstruation had been regular, with occasional leucorrhœa.

On admission, an ovarian cyst was detected, giving the abdomen exactly the appearance of a woman in the eighth month of pregnancy. It was quite movable from side to side. The uterus and pelvis were quite free.

The catamenia, which came on on the day of admission, ceased on the 6th. From the 8th to the 10th she was ill with one of her usual fits of feverishness and abdominal pain. On the 13th she was tolerably well, and the operation was performed. Professors Vanzetti, Neudörfer, Esmarch, Claus, of Bonn, Braune, of Leipzig, and many other visitors, were present. Mr. Wells exposed the cyst by an incision, only three inches long, midway between the umbilicus and symphisis pubis. There were no adhesions. The cyst was tapped, and seven pints of fluid removed. As it became empty she vomited, and the cyst was thus expelled, with some loops of small intestine. She was very faint at this moment, apparently from the effect of the chloroform; so that, as soon as Mr. Wells had examined the other ovary, and found it healthy, he returned the intestine, and closed the wound by wire sutures *before securing the pedicle*. This was done by the clamp as soon as the wound was closed, and the cyst was cut away.

There is nothing to say of the progress of the case after operation, except that the patient recovered without a single bad symptom, and left the Hospital in excellent health on November 12.

Case 3. *Ovarian Tumour—Ovariotomy—Recovery.*

M. W., aged 56, widow, admitted October 10, 1862. She had had three children; the youngest is twenty-one years old. Catamenia were regular till 1856, when they ceased. She first noticed an abdominal swelling in the summer of 1860. Between January and June, 1861, the increase was considerable. Mr. Wells saw her in October, 1861, diagnosed a multilocular ovarian cyst, and advised delay until the necessity became apparent for Surgical aid. In the spring of 1862, Mr. Jardine, of Capel, tapped her, and removed two gallons of fluid. It re-formed, and she was admitted to the Samaritan Hospital in July. Mr. Wells tapped her early in August, and removed twenty-five pints of fluid. When the large cyst was empty, some large groups of secondary cysts could be felt on the left side, extending up under the false ribs, the attachments being apparently loose, and the pelvis free. She was therefore advised to return to the Hospital for ovariotomy before a third tapping was required. The operation was performed on October 20. Drs. Neudörfer, Claus, Ciuccio, Jungken, etc., were present. Mr. Jardine administered chloroform. Mr. Wells made an incision five inches long, from one inch below the umbilicus; broke down, by the hand, some very extensive, but loose, parietal adhesions; and separated a large piece of omentum, which adhered firmly both to the cyst and abdominal walls, connecting them together. He then tapped and emptied a large cyst, removing twenty-six pints of fluid from it, and then withdrew it gradually, with successive groups of secondary cysts. The pedicle was long, and was principally composed of a bundle of large, tortuous, varicose veins. It was secured by a clamp, and the cyst cut away. The uterus was small, and the left ovary atrophied. The omentum was kept on the surface of the abdomen for a few minutes, until slight bleeding from its torn surface ceased, and the wound was then closed by sutures. Wishing to observe any difference between silk and metallic sutures, Mr. Wells passed four deep ones, one of silk, one of

iron wire, one of silver wire, and one gilded harelip pin, as well as several superficial sutures.

She soon rallied, and complained of pain, which was relieved by twenty drops of laudanum. This was the only medicine given after the operation. She had no more pain, only vomited once, recovered without an unpleasant symptom, and left the Hospital on November 11, just three weeks after the operation, in excellent health. With regard to the sutures, Mr. Wells removed them all forty-eight hours after the operation, and found the wound equally well united throughout. The silk suture was removed with the least pain to the patient, the silver wire next, and the iron wire, being harder, caused the most pain in removal. Mr. Wells observed, that in other cases he had tried horse-hair, and the fine cat-gut used for guitar-strings; but he was coming to the conclusion that nothing answered so well, on the whole, as good silk well twisted. It was not till six or seven days after application that any superiority of metallic over silk sutures began to appear, and before that time they ought to be removed.

Case 4.—Ovarian Tumour—Ovariotomy—Death forty hours afterwards — Peritonitis, with Fatty Liver and Enlarged Spleen.

J. D., aged 43, single, admitted October 2, 1862. She had never been very strong, but was as well as usual till June, 1861. The catamenia, which had previously been regular, then continued without cessation for a year, and at the end of the year she found her abdomen increasing in size, chiefly on the right side. About three months before admission she was tapped by Dr. Stevens, of Christchurch, and about twenty pints of fluid were removed. Fluid oozed away for three days after the tapping. Is now nearly as large as before being tapped. The legs had been œdematous before the tapping, and are so still. She has lost flesh lately. Had menstruated twice since the tapping, and was expecting a period. Any operation was delayed accordingly; but nothing appeared after waiting three weeks. Œdema of the vulva and lower extremities led Mr. Wells not to be very sanguine of success in this case; but as the urine was found to be normal, and nothing could be detected in the chest that was not explained by impeded action of the diaphragm, and mere palliative treatment must have been so useless, he decided to operate, and performed ovariotomy on October 27. He began by an incision, extending from an inch below the umbilicus to two inches above the symphisis pubis. The tissues were brawny and œdematous, and several small vessels bled freely, but none required ligature. On opening the peritoneum five or six pints of clear ascitic fluid escaped, and a firm, non-adherent tumour was brought into view. As it seemed that tapping would not be likely to lessen this materially, the incision was extended upwards an inch above the umbilicus, and a large cyst at the upper part was emptied of several pints of reddish-brown fluid by the trocar. An expansion of the left broad ligament over the tumour offered an obstacle to its complete removal; but on separating this by the hand it was all withdrawn without any of the contents having passed into the peritoneal cavity. A clamp was applied to a short pedicle on the right side, and the tumour cut away. Just as Mr. Wells proceeded to sponge away some bloody serum from the pelvic cavity the patient became very faint, apparently from an overdose of chloroform, but she soon revived, and vomited. After removing several fine pedunculated cysts from the left Fallopian tube and broad ligament, Mr. Wells closed the wound by six deep silk, and several superficial sutures. The clamp and stump of the pedicle were kept outside, although the traction was considerable. It had been observed during the operation that the spleen was very large and hard.

She rallied well, but vomited several times, and a good deal of reddish serum oozed out from around the pedicle. Five hours after the operation, as she complained of a drag on the loins, and irritability of the bladder, and the abdominal wall was much depressed by the pull of the uterus on the pedicle and clamp, Mr. Wells cut away some of the stump which projected beyond the clamp, and tied a ligature tightly below it. He then removed the clamp, allowing the stump and ligature to sink within the abdomen. A good deal of reddish serum then began to ooze away, and continued to do so. She became easier. The pulse was good—90 to 100—and there was no more vomiting. Early next morning, twenty drops of laudanum were given, and she had some refreshing sleep, but vomiting recommenced and became very distressing. During the day after operation a great deal of serum oozed from the abdomen; she became restless and depressed; the pulse rose to 110, 120, and 135; she continued to sink during the night, and died forty hours after operation.

On post-mortem examination, the cutaneous aspect of the wound was found to be accurately united. There was a great deal of gelatinous serum in the subcutaneous cellular tissue, and a quantity of serum, tinged with blood, escaped as soon as the peritoneal cavity was opened. The sigmoid flexure of the colon was closely connected to the abdominal parietes on the left side by old adhesions, and a red patch showed where the cyst had been separated from the meso-colon and broad ligament. There was neither blood nor clot in the abdomen. The peritoneal aspect of the wound was firmly united. Several coils of small intestine were adhering to each other and to the abdominal walls around the wound. The pedicle, surrounded by the ligature, was lying, perfectly secured, close to the right side of the uterus. The left ovary and broad ligament were embedded in a mass composed of loops of intestine firmly adherent to each other, evidently changes of old standing. The liver was considerably enlarged, extending nearly down to the umbilicus, and far over to the left side. It was in an advanced stage of fatty degeneration. The spleen was also very large, as were many of the mesenteric glands. The blood which oozed from divided vessels was remarkably thin and fluid, like dark claret. The cause of death, therefore, was extensive diffuse peritonitis of a low form, and was probably due in a great measure to the unhealthy constitution of the patient.

Mr. Wells has since had two successful cases in the Samaritan Hospital, which will appear in a future report.

GUY'S HOSPITAL.

SUCCESSFUL CASE OF OVARIOTOMY.

(Under the care of Dr. OLDHAM and Mr. THOMAS BRYANT.)

[Reported by Mr. CLEVELAND SMITH.]

ELLEN D., aged 32, was admitted into Mary's ward, Guy's Hospital, on July 30, 1862. She was a married woman, and resided at Hull. She had had two children, the youngest being about 3 years old, and had always enjoyed good health. Two years and a-half previous to her admission, she observed that her abdomen was somewhat larger in the right side than natural, but this swelling was unattended with any other symptom of disease, and the catamenia continued regular till November, 1861, but since that date the discharge has ceased.

The bowels were always confined, and on admission the abdomen was enormously distended, apparently from a single cyst; and the symptoms from which she suffered were entirely due to the mechanical inconveniences of this new growth; the legs were œdematous, and had been so for many weeks. All her viscera appeared to be sound.

On August 1, paracentesis abdominis was performed, ninety pints of a dark fluid, which evidently contained blood, having been drawn off. It was then tolerably clear that the ovarian tumour was unilocular, and had sprung from the right side of the pelvis. Immediate relief followed this operation, from which she soon rallied, and she left the Hospital on August 15.

During her stay, however, the subject of the removal of the tumour had been laid before her; and, as the fluid began rapidly to re-collect after its former removal, she readily assented to its performance, and for this purpose she was re-admitted on September 29.

At this period, hardly two months after the date of her first tapping, her abdomen was nearly as large as ever; no tenderness, however, or any other symptom which indicated mischief, was to be observed; her general health was good, and she had fully made up her mind to submit to the operation for its removal. Both Dr. Oldham and Mr. Bryant believed the case to be a good one for such an attempt, and fully explained to the patient the chances of success on the one hand, and the certainty of an early death on the other hand, if temporising measures were alone adopted, and she wisely consented to the means which were carried out.

She was accordingly removed to a private room over the clinical ward, and was placed in charge of an experienced nurse. All admission to any person or student who was not absolutely required for her care and treatment, was strictly

prohibited, as it was Mr. Bryant's wish that every influence should be excluded which might possibly have an injurious tendency, and he, therefore, was anxious to place her as much in the position of a private patient as circumstances would allow.

On October 15, at 2 p.m., the operation was performed by Mr. Bryant, assisted by Drs. Oldham, Braxton Hicks, and Mr. Cooper Forster, the House-Surgeon, two dressers and ward clerks; two visitors being also present.

Chloroform was given by the House-Surgeon, and the patient was placed on a table in a semi-recumbent position; the legs being supported on a chair. An incision of about eight inches was then made, beneath the umbilicus down to the cyst-wall, and a trocar and canula introduced; it was then discovered that the cyst wall was firmly adherent to the abdominal walls, and some time and care were necessary to break these down. This was done by Mr. Bryant introducing his hand carefully over the cyst-wall, and tearing them away, having previously, with a pair of strong claw-forceps, laid hold of the cyst; steady traction being made upon it for its removal with the right hand, whilst the adhesions were broken down with the left. A large piece of omentum, which was torn off the cyst wall, had to be tied on account of the fear of hæmorrhage, and this was left in the wound.

The cyst then turned over very readily, and the pedicle, which was narrow, was at once secured by an ordinary clamp. The tumour was then excised. One ligature had to be applied to a small bleeding point, and the blood which appeared upon the surface of the intestines at the wound's margin sponged away, but it was not deemed necessary to sponge out the pelvis or to manipulate the intestines more than was absolutely necessary.

The peritoneal walls, which had been adherent to the cyst, were very vascular, and from this it was feared that some hæmorrhage might subsequently take place.

The edges of the wound and the peritoneum were then brought together by wire sutures, and the clamp secured, a piece of lint being gently laid over the wound. It may be remarked that the pedicle was tolerably long, and that, therefore, there was but little traction made upon the pelvic organs.

During the operation, there was some sickness from the chloroform, and subsequent collapse, but this readily disappeared.

When the woman had been removed to bed she recovered quickly from the influence of chloroform, and at this time her pulse was small, but of good power, 95. Skin bathed in perspiration, and she complained of heat, and of her lips being parched. At 5 p.m., three hours after the operation, her urine was drawn off, and it was of a natural colour; her skin was then cool and moist. Pulse 88. She complained of little pain. 10 p.m.—Pulse 100; skin bathed in a clammy sweat, and she was very restless; some vomiting also appeared. Twenty minims of Tinct. opii were given, but it was speedily ejected. The vomiting was, however, only from the stomach, hardly any action of the abdominal muscles being perceived, and it caused her no pain; it was evidently the effects of chloroform. Soda water and brandy were given in moderation to allay these symptoms, and ice ordered to suck to allay thirst.

16th, 3 a.m.—Vomiting had quite ceased; her pulse was 105, and bounding; she was restless, and felt disposed to sleep, but could not. Fifteen minims of Tinct. opii were then given, and she slept for two hours at short intervals. Her tongue continued moist; and no tympanitis or tenderness of the abdomen could be detected. 10 a.m.—No vomiting since last report; her countenance was placid, and free from all indications of pain; there was no tenderness or swelling of the abdomen; pulse was small, and 105; skin cool and moist; tongue natural; and she complained of hunger. 3 p.m.—No alteration in her symptoms. Some beef-tea was given, and taken with appetite, a pint having been given at intervals up to 8 p.m. No indication of the bowels' action, but she had passed some wind. 11 p.m.—Tongue was somewhat dry, and she complained of thirst; pulse 112, but of good power; she felt disposed to sleep, so no opium was given.

17th, 10 a.m.—Passed a good night; pulse 100; skin cool and moist; tongue moist; has passed a good deal of wind, which at times caused some pain; there is no tympanitis, and the abdomen is as flat as it was after the operation; no tenderness on pressure can be detected. 2 p.m.—Mr. Bryant removed the clamp, this being forty-eight hours after operation. Wine, ʒiv., was ordered, and everything appeared to be doing well. A portion of sloughing omentum was also removed, but a vessel at this part, which bled profusely, was subsequently tied; the edges of the wound had evidently united by primary adhesion.

18th, 10 a.m.—Has passed a good night, sleeping steadily without the aid of opium; pulse 107, and of good power; tongue and skin natural; she has taken plenty of nourishment with appetite; slough separating off pedicle.

19th, 10 a.m.—Passed a good night; there was some little extra prominence to be observed over the left iliac fossa, and the peristaltic action of the intestines could be plainly seen through the abdominal walls; takes nourishment well; pulse good.

20th, 10 a.m.—Passed a somewhat restless night, with occasional feeling of faintness, and profuse perspiration; but this appeared to be due to a threatened action of the bowels, which were freely relieved at half-past 8 a.m.; a warm water enema being given to assist their action. At 10 o'clock she was most comfortable; pulse, tongue, skin, and general aspect being most favourable. ʒij. more wine were ordered by Mr. Bryant, and egg and chicken for dinner.

22nd.—Still doing well; bowels again freely and naturally relieved. Nothing could look better than the wound, and the patient's general condition was most favourable.

24th.—Four of the sutures were this day removed, the wound having nearly healed.

On the 25th the remaining two were taken away. The mass of omentum also which was left external to the wound was rapidly contracting and wasting away.

On the 27th she had her bed changed, and sat up in it without pain or inconvenience.

On November 1 she was able to walk about, and on November 15 she left the Hospital convalescent; a small piece of omentum still remained, but this was rapidly disappearing. She was not suffering from any pain, and in her general health there was nothing to find fault with.

November 26.—She is now at home, Hull, and continues quite well.

It must be added that this patient was one of the best which could be selected for any operative interference, her disposition being quiet and resigned, thus seconding every act of the nurse and Surgeon in their respective avocations.

METROPOLITAN FREE HOSPITAL.

OVARIAN DROPSY — OVARIOTOMY — RECOVERY.

(Under the care of Mr. HUTCHINSON.)

[Notes by Dr. WARNER, House-Surgeon.]

THE subject of the following case was placed under my care by my colleague, Dr. James Jones, with a view to the performance of the operation. Dr. Jones had attended her for some months, and had satisfied himself that, from the rapid loss of strength and flesh and the increase of the tumour, it was a case not likely to be a prolonged one, unless a radical cure could be effected. In this respect the case is a close parallel to that recorded by my friend, Dr. Stutter, at page 655. In both the patients were exceedingly emaciated, and in rapidly failing health. The operation was very similar in the two, but in the latter firmer adhesions had to be encountered than in my own case. The principle observed in the after treatment was the same in each, namely, to give little or nothing by the mouth during the first few days, from the fear of exciting sickness, and to be very moderate in the use both of stimulants and opium. In Dr. Stutter's case, we trusted to the clamp alone; in my case, I intended to have relied upon the ligature, but feeling a little anxious lest the pedicle was not quite secure, I applied the clamp over it after the patient's removal to bed. That this precaution was not needless, was shown by the fact, that some bleeding occurred in the evening when I attempted to remove the clamp. The only symptom which caused anxiety afterwards was a tendency to diarrhœa, but the patient made, on the whole, a rapid recovery.

The following notes are those taken by Dr. Warner, the House-Surgeon to the Hospital.

Sarah R., aged 50, admitted into the Metropolitan Free Hospital on October 2, 1862. Much emaciated and anxious-looking. Tongue clean; pulse natural; abdomen forty-two inches in circumference at umbilicus; uniformly distended; many veins visible over it; everywhere dull on percussion;

fluctuation very distinct; legs slightly œdematous; complains of a pain of a dragging character in the loins; bowels usually confined; urine scanty, not more than a pint in the twenty-four hours; chest healthy.

She first noticed the enlargement in the abdomen fifteen months ago. It commenced at the lower part, "as if she were pregnant," but she cannot say that she noticed it more on one side than the other. Has had six children and four miscarriages. Has been compelled to keep her bed the last four months. For the last few months she has had a slight coloured "show" for a day or two every fortnight.

21st.—Mr. Hutchinson performed ovariotomy by short incision. There were numerous slight adhesions in the front of the tumour. The cyst being punctured and drawn out, many more cysts were found behind of various sizes, and with contents of different degrees of viscidity. The contents of tumour measured seventeen quarts; the wound was closed by hare-lip pins, the pedicle being transfixed with a double hempen ligature, and firmly tied. The patient, on being removed to bed, became very feeble, with some vomiting; she was, however, rallied by means of brandy-and-water and brandy-and-milk injections. A suppository of Pil. saponis co., gr. x., was given after the operation. The injections without the brandy ordered to be continued every three hours. In the evening, on attempting to remove the clamp, some hæmorrhage occurred, but was immediately checked by the re application of the clamp. The suppository repeated; urine drawn off by catheter twice daily; to continue injections, taking nothing by the mouth but ice.

22nd.—Passed a pretty comfortable night, dosing a good deal. Pulse 120; skin warm and moist. To continue the same.

24th.—Clamp removed. Patient doing well, but some diarrhœa. Tr. opii, ɱxx., to be added to injection every five hours.

26th.—Hare-lip pins removed; wound very healthy; can now pass urine herself.

From this time the patient went on satisfactorily.

November 1.—She is evidently gaining flesh, and sits up in bed.

She left the Hospital in excellent health and spirits five weeks after the date of her admission. She had been quite well for the last three weeks, and had greatly gained in flesh and strength on what she was before the operation.

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Medical Times and Gazette.

SATURDAY, DECEMBER 20.

VERTEBRÆ, AND HOW TO KNOW THEM.

Impressed with the conviction, that Medical students are beginning to recognise the fact, that a knowledge of osteology can only be rightly based on a more or less extended acquaintance with the structure of the lower animals, it may be useful to give a few examples of the mode by which the beginner, who, perchance, is pondering over the vertebral column of man, may obtain a clear idea of the original pattern on which it was formed.

The student who commences this task, guided only by those lights which he derives from mere Anthropotomy, will find himself at a disadvantage. Many of the structures which he perceives—many of the little elevations and depressions which he observes on the human vertebræ, are wholly inexplicable to him without an enlarged comparison of the whole series of vertebrate structures, extending from the most simple fish, through the reptile, the bird, and the mammal.

Such a comprehensive process of observation would necessarily be impracticable within the limited time now allotted to osteological study. But we do not despair of giving an explanation of the various types of vertebral structure, in such a way as to form "a small though sure basis" for more complete generalisations at a future period.

Specimens on which the accurate truths of morphological anatomy can be demonstrated, are within every one's reach. The ox-tail in our soup-plate; the skull of the bird which is found whitening on the grass at our feet; the turtle, whose bones can be obtained at the chief purveyors at the most moderate price; the fish of almost any kind—all form convenient specimens on which to illustrate the vertebral theory. For example, in the codfish, whose separate vertebræ we so easily detach by passing the knife across the delicate gelatinous intercentral capsule (containing the remains of that primitive notochordal column, which subtended the neural arch or channel through which the "myelon" or so-called spinal-marrow passed), we see the most simple form of vertebral structures. It is the round, hour-glass-shaped centrum, almost diaphanous in its centre, with two arches, the one above, and the other below. The upper is the neural arch, composed of two neurapophyses, the lower, the hæmal arch, composed of two parapophyses. Let the philosophical student contrast this most simple aspect of vertebral form, with the more specialised and more complex structures presented by the human cervical or lumbar vertebræ—with their complex connations, confluences, and suppressions, obscuring their morphological aspect, and further complicating their form by manifold points for articulation, and for muscular attachment, as well as the channels and foramina for the passage of the circulatory system. In the fish, the "typical vertebra," under its simplest condition, can be most easily perceived.

Suppression or non-development of all the outstanding growths which render a vertebra apparently so complex, is often carried to such an extent as only to leave its central element. We see an example of this in the last caudal vertebra of most air-breathing vertebrates, where the neural and hæmal arches are absent, or, at most, indicated by slight ridges, and where the centrum is seen alone under its most simple form. The centrum is often detached from its neural arch, as in *Silurus*, and from its hæmal arch in the majority of fishes. The hæmal arch, which is ossified beneath the centrum in some part of the skeleton of most vertebrates, is variously composed. In the bony gar-pike of the Nile, the arch is formed of pleurapophyses or ribs, attached beneath the parapophyses; in the tunny, while the parapophyses complete the hæmal arch, pleurapophyses diverge beneath it; in the menopome, it is formed by hæmapophyses. In the abdominal vertebræ of fishes, the arc is usually formed of short and stunted parapophyses, to which are attached the expanded pleurapophyses or ribs which enclose the viscera of the water-breather.

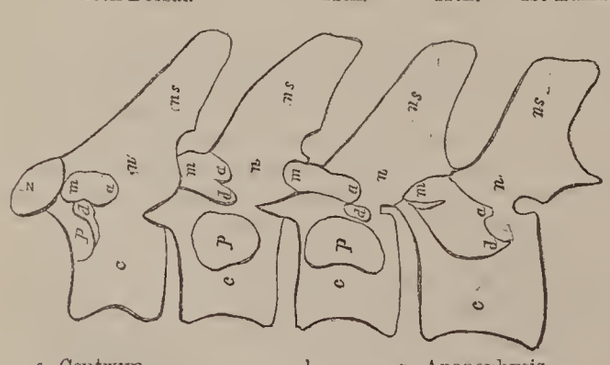
The degree to which the lower part of the hæmal arch is constantly ossified, should be noticed. The ribs answer to the pleurapophyses in all animals, the sternal cartilages to the hæmapophyses, the sternum to the hæmal spine. In the abdominal segments of fishes, mammals, and birds, the hæmapophyses are functionally absent. In some reptiles, however, they are often ossified, and form the continuous floor or platform on which the viscera of the crocodile rest.

The typical vertebra can be appreciated by the student in two aspects—in its neural, or in its hæmal development. The seg-

ment which is formed by the parietal and hyoid arches in man, in which the enormously expanded neural spines, or parietal bones, overshadow the rest of the vertebræ, the dwarfed hyoid arch being scarcely developed, and chiefly in a ligamentous state, is a familiar example of the typical vertebra reaching its "neural" perfection. The segment which we obtain by dividing the sternum of the bird, or hæmal spine, and by separating the rib (pleurapophysis) to which it is attached, as well as the dorsal vertebra, is an example of the "hæmal" type. The pleurapophysis here is the predominant element, whilst the neural arch is merely reduced to the canal for the transmission of the "myelon," or spinal marrow, below which is the "notochord," or original formative cartilage, in which the series of vertebral centres was originally formed.

The vertebra, in the hands of the student, should be traced from its most simple up to its more complex aspect. The last bone of the coccyx of man, in which the rudimentary centrum is the sole indication of the primitive notochord, should be examined, and its vertebral nature traced through the coccygeal series, where the two small cornua which unite the coccyx to the last sacral bone are the homologues of the neurapophyses, the hæmal arch being undeveloped. The pelvic segment offers a remarkable example of deviation from the ordinary vertebral type, which, nevertheless, is capable of recognition. The ilium is here formed by the pleurapophyses; the ischium by the hæmapophyses. In the first sacral vertebra, the pubis is formed by the hæmapophyses; the symphysis pubis, in its chondrific state, representing the hæmal spine. Ascending in the human lumbar series, the central plates develop large and strong neurapophyses, the neural spines which unite them being compressed laterally. The "transverse process," so called in the "Text-book" Anatomies, is the pleurapophysis, serially homologous with the ribs, and confluent with the diapophysis, and, in a certain sense, with the centrum. From the diapophyses are here developed two smaller elevations, the anterior and posterior tubercles of *Anthropotomy*. These are termed metapophyses and anapophyses; the metapophysis being the process which projects from the superior articular process (zygapophysis); and the anapophysis, the one which is developed between the zygapophysis and the transverse process (dia- and pleurapophysis). The anapophyses in *Quadrumana*, especially in the baboons, exceed in dimensions the zygapophyses, and, with them, form a series of interlocked, articular processes, which produces a more stiff and stout spine. The metapophysis is developed strongly in the armadillo, where it helps to support the lateral weight of the dermoskeleton. The diapophysis is seen, in the higher lumbars, to approach near

Diagram of the Tubercles on the Dorsal and Lumbar Vertebræ of Man.



c. Centrum.
n. Neurapophysis.
ns. Neural spine.
m. Metapophysis.
a. Anapophysis.
p. Parapophysis.
d. Diapophysis.
z. Zygapophysis.

to the centrum of the vertebra, where, in the dorsals, it becomes the true "transverse" process. Here the diapophysis is articulated to the tubercle which is developed on the head of the pleurapophysis, or rib. The parapophyses are not developed in the dorsal series, being here represented by the facet for attachment of the rib to the centrum. In the cervical series in man, so much complicated by the transmission of the vertebral arteries, the pleurapophysis forms the bifid extremity of the transverse process, the pedicle of which is composed of the diapophysis above, and the parapophysis below.

Such considerations as these, of which we owe the original suggestive idea to the immortal Oken, were but vaguely expressed by their first expounders. Carus, and the mystical repeaters of the "all-in-all" and the "all-in-every-part" doctrines which the "Naturphilosophie" school of Schelling had diffused, saw a vertebra in every bone, and regarded the humerus as the lengthened-out body of a vertebra. Geoffroy divided the cranium into seven vertebræ, and twisted homology so far as to attempt to refer the articulate and molluscous types of being to a common vertebrate pattern. Spix saw in every bone of the head repetitions of the limb-bones; and termed the post-frontal bone the "shoulder-blade" of the head. No wonder, then, that the disciples of the vertebral theory were taunted by Cuvier as the retailers of an "ill-defined and mystical jargon."

A school of transcendentalists still exists, which servilely repeats the teachings of Geoffroy St. Hilaire and Spix, and ignores all the latest demonstrations of modern anatomy; others there are who attempt to explain the structures in the fish's skull by the relations which the tegumentary skeleton bears to the limbs in the articulata. Some of these writers regard the malar bone as the representative of the wrist, or seek to identify the serial homology of the nose, the tongue, the uvula, and other azygos organs. There are also anatomists who attempt to identify the true hæmal arches with the canals formed by the small interhæmal processes of the carp, and in some birds. There are even authors who, enjoying the fullest possible acquaintance with the literature of the subject, acquainted with the phenomena of embryology, and with the ichthyic skeleton, acknowledge the principles on which morphological argument is usually based, but who seriously promulgate the theory of the original distinction of the scapular arch from the occipital segment, ignoring the totality of the phenomena in the fishes, in which the bone termed suprascapula is seen to articulate with the occipital transverse process or parapophysis. The precept of Göthe, that to appreciate any form of organic life we should regard it in its most simple and least specialised aspect—

> "Willst du dich am Ganzen erquicken,
> So musst du das Ganze im Kleinsten erblicken,"—

is entirely ignored by too many of our most able anatomists.

Observation has lead biologists to appreciate the fact, that there was an inner core of truth in the mystical doctrines of Oken, Carus, and Spix. The principles of special, general, and serial homology have been accordingly enunciated upon the base of frequent and repeated observation, which, moreover, has taught us to perceive that the teleological mode of accounting for the forms and structures of animals, solely with a view to their special adaptation to their sphere of existence, is wholly insufficient to unravel the hidden mystery of the signification of the aspects of living nature.

The variations through which the series of vertebræ in a mammalian skeleton pass, are well shown in that of the ox. To recognise the lengthened-out body of the few last caudal vertebræ, on which the processes indicating the neural canals can be seen as slight ridges on the bone, in the direction of its axis; the lumbar vertebra, with its broad, long, vertically compressed diapophysial plate; the dorsals, in which to the stunted diapophysis is attached the rib or pleurapophysis; the cervicals, with their lengthened neural spines, which support the dorsal muscles, is indeed to observe a marvellous example of specialisation, each vertebra subserving its functional purpose. Contrast such a differentiated range of structures with that offered by the lancelet, in which the

principle of vegetative repetition has entirely governed the vertebral structure, which merely exhibits a series of similar or answerable segments, faintly indicated by the aponeurotic processes, which sheathe the neural axis, and form intermuscular septa. In the lancelet, the gelatinous notochord is continuous, and, with its fibro-membranous sheath, is the homologue of the series of vertebral centra in the higher fishes. In the porbeagle sharks, whose vertebral column is so often used as a walking stick, when threaded together by a longitudinal iron rod, the channel through which the notochord passes is reduced to a small foramen, the osseous particles having been deposited in and around it, so as to form the hour-glass-like vertebral centrum. In the blue sharks, and in other fishes, even this central communication is filled up, and the notochord is reduced to a series of intercentral cavities, each filled with the round gelatinous mass which lies between any two vertebræ.

The consideration of such structures as these will lead the student imperceptibly to attain a thorough knowledge of the embryonal characters of the vertebræ of fishes. But in other forms he will find a greater degree of differentiation, commensurate, in some degree, with the more or less extended functional requirements of the higher vertebrates. In the fish, whose spine merely curves and undulates laterally, so as to move the caudal fin, and to which the scapular and pelvic extremities are lightly attached, less variation occurs in the vertebral column than in the more specialised and higher differentiated warm-blooded vertebrata, whose hinder limbs may be used for support, and the anterior ones for prehension or destruction. By what means, or through the operation of what law, this specialisation or higher differentiation has taken place, science is at present powerless to inform us. The analogy which exists between the upward development of the vertebral column in the whole animal kingdom, and the correlative development in every individual, suggested to biologists the probability of a series of evolutionary changes in the former instance, similar in nature to that which has evolved the complex vertebral column of man, containing the modified arches, which enclose his wondrous organ of thought, from the original *chorda dorsalis* which existed in his primitive fœtal germ.

HALL *v.* SEMPLE.

If there be one bright spot in this distressing case, it is the universal sympathy which the defendant has experienced from men of all ranks in our Profession. Our columns will show specimens of the generous letters which have been addressed to ourselves. It is, we believe, pretty generally granted, that Dr. Semple's proceedings were not marked by entire prudence. Had he extended his inquiries, he might have learned that Hall was notorious for eccentricity, and, had he contrived a more protracted interview with the man himself, he might have satisfied himself that his aberrations from sober conduct were, perhaps, not to be attributed to disease. A man may be a brute by choice; he may freely and voluntarily give the rein to his temper or his passions, but he is not mad, unless it can be shown that his irrational thoughts and deeds, or his want of self-control, spring from disease. We hear nothing of inquiries as to pulse, digestion, and the like, in the case before us; or, if they were made, the defendant had not the benefit of the statement in public.

But, then, how easy it is to be wise after the event—how easy for all of us to hug ourselves self-complacently, and boast that *we* should not have been taken in by an artful woman!—that we should have had nothing to do with low patients of doubtful character! Unluckily, the best of us may be overtaken with a fault, more especially in such a case as this; for it is extremely difficult to form an opinion of the sanity or insanity of any man with whom you cannot obtain a fair interview, and extremely difficult to get an interview with every alleged madman. Besides, are we, as a body, to refuse our aid to people whom we do not know? Are Medical men to refuse to look into the case, when some bruised and battered woman complains of injuries from a husband whom she alleges to be mad?

The Profession, as a whole, gives full weight to such considerations as these, and refuses to allow Dr. Semple to be crushed under this calamity. It may be recollected, that some years ago he, single-handed, fought a desperate battle with the guardians of Islington respecting their treatment of the poor in their Union Workhouse. He gained the day for the poor, but was himself obliged to resign the post of Physician to the Workhouse. A public meeting of the people of Islington tendered their thanks to Dr. Semple for his benevolence and public spirit.

We believe that Dr. Semple's legal advisers have not yet settled the question of an appeal, and that he is scarcely prepared for this step without help from his Professional brethren. But we are advised that the effects of the decision, altogether new and unprecedented as it is, may be felt by some of us in a very unpleasant manner. As the case stands now, any Physician or Surgeon, whether the most learned and humane or the contrary, who happens to form a wrong opinion, is liable to an action for negligence; and the important question, as to whether he did or did not take a reasonable amount of care in forming his opinion, is left to be decided by a jury of the smallest tradespeople.

THE WEEK.

DR. RADCLIFFE'S LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

In the last two lectures, the sixth and seventh in the course, Dr. Radcliffe occupied himself with the consideration of epileptiform and spasmodic disorders. Reverting to the subject of his former lecture, Dr. Radcliffe said that he had endeavoured to show that the convulsion of idiopathic epilepsy was connected with a condition of respiration and circulation which prevented us from supposing, as we are required to do on the current theory of muscular motion, that the convulsion was the sign of exalted functional activity in one or other of the great nervous centres; for it is an established law in physiology, that the functional activity of an organ is directly related to the supply of arterial blood to the organ. Now, in epileptic convulsion, the state of the circulation (as is shown in the death-like paleness of the countenance, and in the empty and almost pulseless state of its arteries) is one which, at first, is not very far removed from a state of syncope, and which, *afterwards*, is unequivocally that of suffocation, except in the few cases in which the initial state of syncope or collapse is prolonged throughout the fit. In ordinary cases, the state throughout the fit is one of absolute suffocation—a state which, as it would seem, would prevent us from supposing (if the functional activity of an organ be directly related to the supply of *red* blood to the organ), that there is exalted functional activity of any one of its great nervous centres during the convulsion. How, then, is the contrary opinion supported? Is it because there is a full, strong pulse during the convulsion—a pulse much fuller and stronger than it was before the paroxysm? The late Professor Schroeder Van der Kolk supposed that this pulse implied increased arterial injection of blood to the brain, and that this increased arterial injection implied a corresponding functional activity in the organs receiving the additional supply of blood; and this opinion is, no doubt, no more than the expression of the common belief on the subject. Dr. Radcliffe, however, shows very clearly, that the state of the pulse and heart which is met with in the epileptic convulsion, is the natural state of the circulation in suffocation. With respect to the state of the circulation in suffocation, the current opinion is, that the left side of the heart and the

arteries are comparatively empty, and that the right side of the heart and the veins are gorged with black blood; and the inference is, that the arteries will be comparatively empty, and the pulse almost or altogether absent, in suffocation. The true state of the case, however, is very different, for the facts are, that in suffocation black blood readily finds its way *into* but not *out of* the arteries, and that for this reason the veins become emptier than they were before, and the arteries fuller and their pulse stronger. The facts, show, for example, that the aorta is almost double its natural size at the height of suffocation, and the venæ cavæ little more than half their natural size. Hence, the full and strong pulse of the epileptic paroxysm is nothing more than the natural pulse of suffocation, the pulse of *black* blood, the *apnœal pulse;* and this being the case, Dr. Radcliffe argued that the full, strong pulse of the fit does not contradict the notion, that the convulsion is connected with a state of suffocation—a state in which there is the want of *red* blood—a state which is directly opposed to that which is necessary to allow of anything like exalted functional activity of any organ, nervous centre or other, during the convulsion. In a word, Dr. Radcliffe argued, that the case of epileptic convulsion is one which agrees with the conclusions at which he had arrived with respect to the physiology of muscular motion; for this conclusion was, that the action of the blood and nervous influence in muscular motion was, not to cause, but to antagonise the state of contraction. After insisting upon this point for some time, the lecturer passed in review the various forms of *epileptiform convulsion*, and showed that the case was precisely the same here as in epileptic convulsion. He also showed that the preliminary history of the convulsion was the same in the two cases, the convulsion being always ushered in by a state of circulation which is, as far as possible, removed from a state of activity. He showed, for example, that epileptiform convulsion, associated with active mischief in the brain, or other nervous centre, occurred in the initial cold stage of the attending fever, as also in the stage of collapse following the fever, and never during the active stage of feverish excitement—that epileptiform convulsion in this case took, in fact, either the place of rigor, or that of subsultus. He showed, also, this—that, in the cases where the state of the pulse might at first sight seem to contradict this conclusion, there would always be found to be a state of deficient respiration, and that the pulse was receiving a factitious force from the difficult circulation of the *black* blood, which had found its way into the arterial stream. And thus, in epileptiform convulsion as in epileptic, it would seem to be impossible to connect the convulsion with exalted functional activity of any organ, nervous or other, if it be, as it must be, that the functional activity of an organ is directly related to the supply of *red* blood to the organ. After disposing of the pathology of epileptiform convulsion in its various forms, and making several remarks upon the more practical subject of treatment, Dr. Radcliffe proceeded to show that the same law held good with respect to tetanus, and the other forms of spasmodic disorder. Here it was shown that inflammation or fever had no necessary connexion with spasm; and, among other things, this point was insisted upon—that there may be violent and general tetanic symptoms where the spinal cord or its membrane is untouched by inflammation, and that these symptoms are comparatively slight, and confined to the back of the neck, where the cord or its membrane is actually and unmistakably inflamed—facts which rather tend to show, that the inflammation of these parts may have had the effect of antagonising, rather than of causing, the inflammation. The great point of the sixth lecture, and also of the seventh, was that in which the lecturer stated his views with respect to the nature of the "*state of irritation*" in nerve and nerve-centre, and the relation of this state to the production of morbid muscular contraction in any case, and to the production of congestive or inflammatory changes, where such changes were met with. Dr. Radcliffe cited certain experiments by Professor Dubois-Raymond, which prove that the electricity of a nerve is affected by some of the causes which induce this state of irritation, and that the position of the two electricities is reversed—the longitudinal surface becoming negative, the transverse section positive. Dr. Radcliffe believes that a portion of nerve, or nerve-centre, in a state of irritation, has the position of its natural electricities reversed in this manner, and that this reversal will bring about all the results which are traceable to the state of irritation. How this result is brought about it is impossible to show clearly in a short abstract like the present; and it must suffice to say, that this electric malposition is supposed to necessitate, so long as it continues, a state of electric unrest in the nervous system (for the opposite electricities will continually tend to combine and disappear), and that the movement of electricity arising from this cause will give rise to the development in, around, and along the nerve, of those instantaneous currents of high-tension electricity—those Faradaic currents—those currents analogous to the discharge of a torpedo—which currents will produce disturbances in muscular motion, or sensation, or nutrition, according as they happen to be developed in, around, and along, motor, sentient, or vaso-motor portions of the nerve-textures. Hence it follows, according to this view, that the "state of irritation" in nerve or nerve-centre which may give rise to morbid muscular contraction in various forms, may also give rise (when the vaso-motor nerves are implicated in a particular way) to congestive or inflammatory changes anywhere—in the nervous system or elsewhere; for these changes are not always met with in the nervous system, or in any constant seat. The morbid muscular contraction, and the congestion or inflammation, that is to say, are looked upon as referable to the same change, but neither as standing in the relation of cause or effect to the other. After speaking upon these points, and hinting at the therapeutical indications to which these several considerations tend, Dr. Radcliffe briefly analysed the history of hysterical convulsion, and of chorea and tremor, in their various forms, and showed that morbid muscular movement in these different cases is still obedient to the same law as that which rules morbid muscular movement in epileptic, epileptiform, and spasmodic disorder, and that the indications for treatment are the same. The lecturer was speaking of *Pain*, when the hour came to an end; but he had not done more than broach this part of his subject, and, therefore, we will defer our notice until we have heard more, merely saying now, that Dr. Radcliffe promises to show that the nervous action which produces pain can be shown to be identical in all respects with the law of the nervous action which produces muscular contraction.

OVARIOTOMY.

Two cases of ovariotomy are reported in recent Numbers of the *Gazette des Hôpitaux* (November 27th and December 2nd). The first we notice is that of a woman, aged 34 years, of robust constitution, who was admitted, on August 25th, into the Hotel Dieu, at Lyons, under the care of M. Desgranges. The commencement of the malady dated back to about eighteen months, when she suffered acute pain in the left flank, the continuance of which led her to consult a Medical man, who discovered a small, movable tumour, of the size of a hen's egg, in the left iliac fossa. Painful and difficult micturition, nausea, vomiting, and diarrhœa succeeded; but at the expiration of a month there was no complaint but of vague pain in the left iliac region. The tumour rapidly increased: at the end of eight months it had grown to the size of an adult head, and had taken up a central position in the median line. As the belly increased in size, a new tumour was dis-

covered at the upper part of the right side of the abdominal cavity, and the latter from henceforth grew more rapidly than that first mentioned. On admission into the Hospital, the abdominal wall was found distended very irregularly by two unequal masses, situated, as above described, and separated by a distinct semicircular furrow. The lower tumour, globular and perfectly regular, seemed impacted in the pelvis, and was capable of very slight lateral displacement. It was even, without any perceptible solid portions, and sharply separated from the surrounding parts. On making strong pressure upon it, the liquid it contained was found to be displaced with difficulty, and did not communicate with the neighbouring sac. The hypochondriac tumour, on the other hand, was larger and more irregular, with nodulated walls, hard, and not fluctuating readily. The uterus, on vaginal examination, was found to be movable, and its cervix deviating slightly to the left. The finger on the wall of the vagina could perceive fluctuation, on imparting a shock to the hypogastric tumour. On deep inspiration the abdominal walls moved with regularity, and the furrow between the cysts almost disappeared. There were other signs indicating freedom from any close adhesions. The circulatory, respiratory, and digestive functions were not seriously interfered with. The pains were very severe, and, having been intermittent about three months previously, had become continuous, but appeared limited to those parts where the wall passed off from the subjacent tumour. Some evening feverish paroxysms led to the belief that there was some inflammatory action in the wall of the cyst and its peritoneal covering. The conclusions arrived at were, that there was a multilocular cyst, that the liquid was, probably, thick, that the growth of the tumour had been rapid, and that the general health was still good. The operation was performed on September 10th. It was done at the woman's own house, situated on the banks of the Rhone, and in a locality freely exposed to the air and to the sun—circumstances, of course, more favourable to the success of any operation than those which would have surrounded the patient within the walls of a Hospital. Etherisation having been accomplished, the operation was proceeded with, thus:—1st. The incision, fifteen centimètres in length, was made in the median line, from the pubis nearly to the umbilicus, the skin being divided by the first incision, and the fibres of the linea alba being divided with caution; all bleeding vessels were immediately tied. 2nd. The peritoneum was divided to a similar extent in the usual manner, and the lower cyst exposed. 3rd. The cyst was punctured with a trocar, and gave issue to a large quantity of creamy pus. A difficulty now arose from the friable character of the wall of the cyst, which tore under the puncture of the trocar, so that the liquid flowed, not only through the canula, but external to it. It was only prevented from flowing into the peritoneal cavity by skilful pressure of the lower angle of the wound, so as to keep it well in contact with the wall of the cyst. The attempt to draw out the empty cyst being resisted after a short time, the hand was introduced into the abdomen, and some tolerably close adhesions on the right side, between the cyst and the abdominal parietes, over a space of twenty square centimètres, were broken down, and without inducing any hæmorrhage. 4th. The upper cyst was now punctured, and gave issue to a large quantity of chocolate-coloured albuminous liquid. The sac was thick and resistant, and was drawn out of the wound. The abdomen was explored without the discovery of any other tumour, and the pelvic cavity carefully cleansed by the aid of soft sponges. No intestinal coil escaped, but only the great omentum, which, after careful examination, was returned. 5th. The pedicle was now constricted by M. Charrière's clamp, the arms of which were strongly closed, and, in order to avoid any unforeseen escape of the pedicle, the latter was transfixed with two pins crossed just above the instrument. The pedicle was divided at a little distance from the pins, and brought to the lower angle of the wound. Just at this instant deep syncope took place, but, on the woman recovering, the operation was proceeded with. 6th. The wound was reunited by means of four long gilt pins placed above the clamp, and of four metallic sutures, three alternating with the four pins, and the last placed beneath the pedicle. Each of the pins was thrust perpendicularly into the tissue; first, from the skin to the peritoneum, so as to go through the two membranes at a distance of one centimètre from the wound, and then from the peritoneum to the skin on the other lip at a like distance. The lips of the wound were then brought together by cotton twisted on the pin. The interrupted metallic sutures were passed by means of a tubular needle, and kept closed by the ends being received into a little bit of lead, which was squeezed up by strong pincers. Simple dressings were used, a layer of carded cotton on the abdomen, a swathe of flannel, and an envelopment of the whole in a woollen covering. The operation lasted three-quarters of an hour. The after treatment consisted in measures calculated to restore and preserve the animal temperature, and in the prevention of vomiting by a pledget of charpie soaked in laudanum being placed upon the epigastrium. The bladder was from time to time relieved by the catheter. The wound was dressed on the 12th, when the deeper portions were found to have united by the first intention; the thirst which she had suffered since the operation had diminished, and she was allowed a little broth. On the 15th, the wound being healthy, the patient was allowed some chicken and some wine. In the course of the four following days, the pins and sutures were removed, the clamp alone being left. On the 19th (the ninth day), a gramme of jalap was given with good effect; and on the 21st the clamp fell off. After a few days, two small abscesses formed in the situation of two of the pins, and, about the same time, colicky pains and liquid stools ushered in the catamenial discharge, which continued from the 8th to the 12th of October; and by the 13th the wound was completely cicatrised. In commenting upon the case, the writer dwells upon the uselessness of any previous tapping in such cases, and, in this instance, upon the danger which would have resulted from such a proceeding, in consequence of the friable condition of the wall of the lower cyst; upon the importance of leaving the clamp to fall spontaneously, which it usually does in five or six days; and upon the method of bringing together the peritoneal surface in uniting the wound, as insisted upon by Mr. Spencer Wells.

The second case was related by M. Koeberlé, of Strasburg, to the Académie des Sciences, on November 24th. It was as follows:—Madame V., aged 37, mother of four children, and of good constitution, and *embonpoint*, was tapped, a year previously, for an ovarian cyst, since which time, the tumour having made progress, she desired to be freed from it by extirpation. The operation, which lasted during two hours, was done on September 29th. It was found necessary to make an incision of thirty to thirty-two centimètres in the abdominal wall, which was four to six centimètres in thickness, in order to extract a multilocular tumour weihging 2400 grammes, one cell of which contained seven and a-half litres of a thick brown liquid. There was an umbilical hernia. The omentum was very adherent to the tumour, which presented also loose adhesions to the wall of the pelvic cavity, giving rise to a troublesome capillary hæmorrhage. It was necessary to extirpate both ovaries, the pedicle being not longer than one and a-half to two centimètres. The omentum had to be tied *en masse*, and in two other points arteries and veins had to be tied separately. The wound was reunited by several points of suture, superficial and deep, and by collodion. The free extremities of the ligatures of the omentum and ovaries were mummified, and rendered imputrescible by perchloride of iron. Applications of a solution of sulphate of iron arrested the inflammation, which was disposed to spread rapidly on the second day. . . . The suppuration was insignificant, and

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never exhaled any putrid odour. The pedicles, sunk at a depth of eight centimètres, were kept exposed by a dilating apparatus. During the first days, she was kept in a state of anhydræmia as complete as possible, in order to facilitate the absorption of the effused liquid. . . . The wound was kept open for nearly a month at its lower extremity, by means of caoutchouc tubes, up to the time of its complete cicatrisation, and recovery was complete. M. Koeberlé proceeds to say:—"My method of operating consists—1st. In thoroughly cleaning the cavity of the abdomen before reuniting the wound. 2nd. In mummifying or drying the pedicle of the ovarian tumour and the free portions of the ligatures with the perchloride of iron. 3rd. In maintaining exposed the pedicles and the ligatures, and keeping them imputrescible until the peritoneal adhesions are sufficiently solid. 4th. In placing the patient in a state of anhydræmia as complete as possible during the early days of the operation, in order to favour the reabsorption of the effused liquids, etc. 5th. In opposing inflammation, in avoiding the stagnation of the fluids, and in hindering their putrefaction by the use of ice, of perchloride and of sulphate of iron; thus combatting the simple peritonitis, and warding off the putrid peritonitis, which are the most ordinary causes of death after ovariotomy. 6th. In placing patients for operation in good circumstances, physical, chemical, and physiological. 7th. The mechanical disposition of the dressings. The instruments which I use, the chief of which are peculiar to myself, concur in assuring success in the most unfavourable cases. The use of perchloride of iron as a mummifying agent for tissues disposed to putrefy rapidly and to produce purulent infection, and that of sulphate of iron, as an anti-putrid astringent, constitutes, so far as I know, a true therapeutical novelty in preventive medicine."

A third successful case is recorded by Dr. Keith in the December Number of the *Edinburgh Medical Journal*. When the patient, aged 49, first applied last August, there was found a large multilocular ovarian tumour filling up the whole abdomen, to which her attention had been directed six months previously. Her health was beginning to break up, and the operation was only deferred on account of an attack of pleurisy, with effusion. In the mean time the abdomen had much increased in size from ascitic accumulation in the peritoneum. The operation was performed on September 18. On exposing the tumour, "one large cyst, containing about eight lbs. of fluid, was emptied and drawn out, and some small cysts punctured; but, as no further diminution of the mass could be obtained, it was necessary to extend the incision above the umbilicus, till sufficient space was gained, to allow of the tumour being withdrawn. There was but one small band of adhesion. The pedicle, which consisted of the left broad ligament, was very short, broad, and thick. It was transfixed; each side was tied with a double ligature, and then divided little more than an inch from the uterus, and so close to the tumour, that a piece of thick cyst wall was left to prevent any chance of the ligature slipping. Owing to the shortness of the pedicle, it was not possible to secure the cut extremity externally. It was, however, brought as near the wound as circumstances would admit of, by passing a long acupressure needle through the strip of cyst, and then laying the needle across the lower angle of the wound. There was thus considerable tension upon the pedicle, though none upon the ligatures themselves, which were only loosely given a turn round the needle. The edges of the wound were secured by seven needles passed through the whole thickness of the abdominal wall, including the peritoneum. A small quantity of slightly bloody serous fluid was left in the cavity of the pelvis." The after-treatment consisted of an opiate, which was vomited, and not repeated; small pieces of ice and an occasional mouthful of soda-water, for more was instantly vomited. The catheter was used every four or five hours till the fourth day, when it became unnecessary, and the bowels also acted spontaneously, and without pain. Some of the needles were removed on the fourth day, and the rest on the day after, when the wound was firmly united, except at the point where the ligatures came out. The greatest care was taken to keep the air of the room as fresh and pure as possible, the window being generally open both day and night. Between the seventh and the seventeenth days, accumulations of matter took place, the evacuation of which, by breaking up the adhesions round about the ligatures, gave relief to pain and restlessness, which she had begun to suffer from. From the twenty-second day the convalescence was rapid and satisfactory.

SMALL-POX AND THE SARRACENIA AT ST. GEORGE'S HOSPITAL.

We are informed that there was rather a serious outburst of small-pox at the West End of London last month. It began in a boy of seven, living at Lloyd's-place, Brompton, who was removed to St. George's Hospital, in an early stage of the disease, under the idea that he was suffering from "fever." When the eruption manifested itself, it was determined to keep him in the Hospital in a private room, in order to try the effect of the *sarracenia purpurea*. This remedy unluckily did not produce the effects expected; and, whilst it was on trial, four patients, who were in the Hospital for other diseases, and one student, became ill of the small-pox. The patients were at once transferred to the Small-pox Hospital. About the same time, twelve other cases of small-pox occurred in the lower part of Belgravia amongst the Irish population,—one case fatal, and one case in a respectable family in Park-lane. The failure of the *sarracenia* is to be lamented. Nevertheless, the search for a specific ought to be continued unremittingly. When we consider the history of malarious fevers and of quinine, it is more than probable that Physicians will some day find a remedy which shall act in like manner on the zymotic diseases; but nothing can be learned without experiment.

HOW A PRINCE MAY INJURE HIS HEALTH.

Now that the anniversary of the decease of the Prince Consort has come round, the Queen has caused a new edition to be published of his speeches and addresses, with an introduction giving some account of his character, and of the negotiations which were carried on, in the year 1850, relative to the proposition, that the Prince should take the office of Commander-in-Chief of the British Army. Now only is it that the true character of the Prince stands out in serene and grand relief: now only can we see what a pattern he set of truth, loyalty, and self-denial. If there be any one amongst ourselves who complains that he sacrifices his health, time, and skill, and yet receives a grudging and ungrateful recompense, let him think of the Queen's husband, of his hidden labours, and untimely death, and let him learn that Royalty offers no exemption from labour. The Prince declined the Commandership-in-Chief, because (amongst other reasons) his time was fully occupied in assisting the Queen:"

"The only person," says the Prince, in a memorandum which he left of the negotiation, "who helped her, and who could assist her in the multiplicity of work which ought to be done by the Sovereign, was myself. I should be very sorry to undertake any duty which would absorb my time and attention so much for one department as to interfere with my general usefulness to the Queen. . . . The Queen added, that I already worked harder than she liked to see, and than she thought was good for my health, which I did not allow—answering that, on the contrary, business must naturally increase with time, and ought to increase, if the Sovereign's duties to the country were to be thoroughly performed; but that I was anxious no more should fall upon her than could be helped."

To this memorandum the following note is appended:—

"The anxiety of the Queen lest the Prince should injure his health by his excessive attention to public business

naturally continued to increase. In 1860, when the Society of Arts renewed the proposal for holding a second International Exhibition, the Queen wrote to Lord Granville, without the knowledge of the Prince, expressing her earnest hope that he (Lord Granville) would do all that in him lay to prevent the responsibility and labour of conducting the undertaking being thrown in any way upon his Royal Highness. The Queen felt deeply the necessity for averting any addition to the heavy work already entailed on the Prince by the assistance and support (every day more needful to her) which he gave her in the transaction of all public business; and her Majesty was convinced that he could not again undertake the labour he had gone through in conducting the first Exhibition to its successful termination without injury to that health which was not only most precious to herself and his family, but to the country, and even to the world."

Our readers will feel that there is but one mouth which could have dictated this note.

SALE OF DISEASED CATTLE.

We learn from the *Times* that "the Royal Dublin Society met, on Saturday evening, to hear a lecture from Professor Gamgee, on 'Disease and Mortality among Cattle.' When he had concluded, Mr. Ganley, salesmaster, made an extraordinary statement. He said that, unless some means were devised to give some compensation to the farmer for diseased cattle, it was impossible to prevent him from selling them, or the butcher from killing and selling them. Unless some society were formed to have diseased meat paid for, it would be killed and eaten. There was no use in mincing the matter, he said; every one of the salesmen sold diseased cattle. The farmer could not otherwise pay his rent. The disease is so prevalent that he could not live were he to submit his cattle to destruction. Professor Gamgee said he would have gone 1500 miles to hear this confession, and he agreed with Mr. Ganley that some plan should be adopted for paying the farmer for diseased cattle." This does but add superfluous confirmation to a fact that is already notorious. There is no doubt whatever that the prudent farmer, so soon as a bullock is seized with the lung disease, does have him killed forthwith; that so killed he is eaten; and that, according to the English mode of cookery, much of the blood of the diseased animal must pass, in an unaltered state, into the stomachs of those who cut the juicy sirloin, or *underdone* round of beef, with its delicious gravy. Underdone meat is really, as Liebig taught us, raw *meat*, and the *red gravy*, so much prized as a restorative, is in reality tinged with the colouring matter of blood that has never, in the inside of the joint, reached a temperature of 180°. There is one consolation which the philosopher may extract from all this. If the consumption of diseased meat be so universal, it does not seem to hurt those who can get enough of it. The human stomach is a wonderful organ.

CASE OF WILLIAM MEALING.

Our readers will remember the case of William Mealing, who was committed for the wilful murder of Sarah Moss, at Rendcombe, near Cirencester, on October 23. We called attention to the case as illustrating some singular features in the lives and morals of the English peasantry. The prisoner was sent by his mother, with a mouthful of religious phrases, to sleep as usual with a woman to whom he was to be married, who was already pregnant by him, and had had an illegitimate child, by another man, some years before,—the cohabitation taking place in the girl's house, with the knowledge and consent of her parents. In the night he nearly cut her head off, then left the house, and went and told of the murder. Some symptoms of insanity had shown themselves previously; the patient has often complained of his head. Police-superintendent Riddeford deposed that when he took the prisoner into custody he appeared "off his head." Mr. Rudd, Surgeon, who attended the deceased on October 14, found him in a state of mind bordering on homicidal mania; and Mr. Hickes, Surgeon at the county gaol, and Dr. Adamson, of Cirencester, gave evidence to the effect that they considered the prisoner was not of sound mind, and that he was suffering under a kind of religious monomania. The jury almost immediately returned a verdict of "Not Guilty" on the ground of insanity.

MORTALITY IN COAL MINES.

A correspondent of the *Times* calls attention to the frightful casualties in coal mines:

"In the ten years, ending with the year before last, upwards of nine thousand lives were lost in our collieries. Our coal mines cost us every two years almost as many lives as were lost at Waterloo by British and Hanoverians together. We read of whole battalions crushed and squadrons annihilated, but the simple fact is, that in two regiments only out of the whole army did the numbers of the rank and file killed exceed 100. The 27th lost 103 men, and the 3rd battalion of the 1st Foot Guards 101. Those were the highest returns. The Scots Greys, represented by our French informants as utterly destroyed, and who really were most fiercely engaged, lost 96 men. The casualties among the officers were, of course, in proportion, but they would add little to the totals. The entire list of the killed on June 18 amounts to 2047. If we now just repeat, that between 900 and 1000 men are destroyed by violence every year in our coal mines, we shall have done enough to show what such figures mean. The wounded, we may depend upon it, are at least in full proportion."

Explosions of fire-damp, caused by the use of gunpowder for blasting, are the main causes of this great slaughter.

CRYSTAL SANITARIUM.

We believe a scheme is in existence for erecting a Crystal Sanitarium:—

"It is intended to occupy one-half of the internal space of about eighteen acres under glass, with habitations of a light and ornamental character, so arranged as to allow of winding walks, with fruit and foliage suitable to Madeira. The outer circle, next to the glass, whilst affording facility for a broad walk round the interior, will be used for the cultivation of grapes. Baths will, of course, be introduced.

"Other plans are in contemplation to aid a dividend, but it is believed that the rents from about one hundred and fifty habitations, at £3 and £5 weekly, will prove highly remunerative to the shareholders; there would be, however, space for twice as many."

Of course we can see certain objections to this scheme. It may be said, for instance, that the air under a huge glass canopy will want freshness. We admit this; and admit that a winter residence in a warm climate—if English comforts and Medical attendance could be had, and the expenses were not great—would be better than any glass-house under English clouds. Still, there are numbers of invalids in England who keep the house—often very draughty, chilly, or stuffy and ill-ventilated houses,—and who cannot go abroad, and for such persons the Crystal Sanitarium may be a residence worth trying.

A WELL-VENTILATED THEATRE.

Mr. Dion Boucicault tells the public that he has taken Astley's Amphitheatre, and intends to convert it into a place of evening entertainment, where the luxury of pure air may be enjoyed, and to which delicate persons may resort without risk of life from cold:

"There is to be a wide and handsome entrance to the theatre, opening into an ante-chamber or hall large enough to contain 1500 people, thus affording the audience shelter from the weather while waiting for the opening of the doors, or waiting for conveyances at the end of the performance. The systems of ventilation in theatrical use are all defective, nor have we been able to introduce that which alone is perfect. Underneath the entire floor of the pit should be constructed a chamber, lined and floored with galvanised iron, to

keep out the damp. This chamber is in connexion with the roof by means of four large air-shafts and four open fire-places, with their respective flues. The flooring of the pit forming the ceiling of this chamber is laid with open joints, thus admitting either cool or warm air, as the chamber below is heated by the fires or cooled through the air shafts. The wide extent over which the cool or warm air is thus admitted precludes all possibility of draught, and the process in either case is insensible. The ceiling of the auditorium should be made of wire gauze, such as is used in window-blinds; it is stretched on a strong wire frame, which has been previously modelled into the proper form—that is, a very oblate dome, or an inverted saucer-shape. This ceiling will take decoration like canvas, and is opaque when lighted as usual from below, or may be rendered transparent by lighting it from above. It is suspended by strong rods from the roof timbers, and guyed steadily in its place, whence it can be let down to be re-decorated or cleaned, or taken up without trouble. Over its entire surface above, and between it and the roof, is spread a light blue woollen cloth, which is perforated by the suspending rods, kept stretched by them, and works up and down upon them. This damper is raised by lines, or allowed to fall, as the ventilation may be required, more or less in degree; if allowed to lie on the wire gauze, it stops the current."

ACTION FOR A PHYSICIAN'S FEES—A GUEST OR A DOCTOR?

We have, before now, heard the question debated, whether, if a Medical man goes out to dinner, and is incidentally asked by his host to feel his pulse, he ought to make a Professional charge. We think not. If a fee is offered he would be a fool to refuse it; but he ought not to look for it. The Medical advice was clearly an accidental accompaniment to the rites of hospitality. On the other hand, if a patient send for a Medical man to see him professionally, and gives him a dinner, this exercise of hospitality is no reason why he should not pay all due fees. The dinner was but an accident in the course of Medical attendance. An action, which seems to involve such high principles as these, has been tried in the Court of Common Pleas, in Dublin. Dr. John Harte sues Sir George Whiteford for £350 for Medical attendance. £50 was paid into court. The following evidence for the defence will show the features of the case:—

"Sir George Whiteford, the defendant, examined by Mr. Macdonogh, Q.C.: The plaintiff frequently dined with me in the years 1854, 1855, and 1856; during the three following years I did not employ him professionally to my knowledge; he used, perhaps, to feel my pulse, and say I wanted a Doctor; I do not think I got any prescriptions from him during that period; if anything of the kind were done it was in a casual way; I continued to take remedies prescribed for me by Drs. Stokes and Croker; I cannot say how often the decanter was emptied; I always considered the plaintiff came to my house as a guest; if I thought he came in any other capacity I would not have allowed him to enter my house; during all these years I never sent for Dr. Harte to attend me professionally to my knowledge.

"Thomas White, examined by Mr. Levinge: I am the defendant's land steward; I do not recollect the plaintiff ever being sent for professionally; I have brought medicine to the defendant that had come by train from Bewley and Evans, in Dublin.

"Mr. Clark: How did you know it was medicine?—I tasted it (laughter).

"The Chief Justice: Why did you taste the medicine?

"Witness: When he and Sir George used to be "elevated," they used to make me taste the medicine to see what it was like (laughter); there used to be punch-drinking in the house sometimes till 10, 11, and 12 o'clock.

"Cross-examined by Mr. O'Driscoll: I went once for the plaintiff when the defendant was raving in bed; I went for him, because he was the attendant of Sir George. I know that Dr. Harte was sent to the sessions to state that Sir George could not attend. During the last time Sir George was ill, Dr. Harte earned his money as well as any other doctor.

"Edward Dunphy was examined: He stated that, up to August, Sir George was really in good health; the plaintiff used to dine with him, and drink punch.

"Cross-examined: I have rubbed liniments on Sir George that were given by Dr. Harte. He was acting as Sir George's Medical attendant. Saw Dr. Harte applying blisters to Sir George.

"The jury found for the plaintiff, £60 over and above the sum lodged in court."

NOTICES OF THE

SURGICAL, MEDICAL, AND OBSTETRICAL INSTRUMENTS IN THE INTERNATIONAL EXHIBITION OF 1862.

By JAMES REEVES TRAER, Esq., F.R.C.S., etc.
Superintendent of Class 17.

In this and my concluding "Notice," it is my intention to refer to such of the objects exhibited in Class 17 as are of interest to the Medical man, and to which I have not previously had an opportunity of drawing the attention of the readers of the *Medical Times and Gazette*. Mr. Hilliard, of Glasgow, sent a case, which contained many highly ingenious and well-constructed instruments, among which I will first allude to Dr. Buchanan's rectangular staff (Fig. 1). This contrivance is generally employed in Glasgow, and, although its shape would seem to suggest some difficulty in its introduction into the bladder, such is not found practically to be the case. There can be no doubt but that such an instrument as this would facilitate the operation of lithotomy, by guiding the knife smoothly into the bladder, and by accomplishing the incision with precision. For this staff Mr. Hilliard has devised a secure groove, which allows the knife to slide readily, but prevents it from deviating from its proper course. The usual knife that is employed with the rectangular staff is a scalpel (Fig. 2), the back of its blade being quite straight, and in a line with the handle, the cutting edge being of the same length as the groove in the staff. Fig. 3 represents the rectangular "double staff," which consists of an internal and an external portion, which are easily disconnected so as to facilitate introduction. This being accomplished, on re-connecting the two parts of the instrument, the point of the external staff is pressed deep into the perineum until it comes into contact with that portion of the instrument which is in the urethra, and it then provides the operator with a straight groove, which leads at once into the bladder, and which forms an unerring guide for his knife. Hilliard's gorget-shaped knife for lithotomy is shown in Figs. 4 and 5. This instrument seems to be a partial return to the exploded gorget, for, although it is somewhat more surgical in shape, in principle it is very similar. It is exclusively adapted for either of the forms of staff to which I have already referred, and is so curved that it would appear to me to make an incision of very nearly the extent and direction which the operator would require. Contrivances of this kind tend to reduce the operation of lithotomy to the level of a mechanical certainty; they are, therefore, likely to render the occurrence of a mishap less frequent when an inexperienced Surgeon finds himself called upon to attempt the extraction of a calculus from the bladder, and they, therefore, merit favourable consideration; but I should not think it likely that any practised lithotomist would adopt them. The forceps exhibited by Mr. Hilliard differ little from those in ordinary use. They are so formed that they adapt themselves closely to the shape of the index finger of the operator's left hand, along which they are easily introduced into the bladder. When the depth of the perineum is so great that the stone cannot be reached by the finger, the Surgeon can employ a sort of elastic thimble furnished with an ivory point, which elongates the finger, as it were, for the purpose of sounding.

In Mr. Hilliard's case was also to be seen a set of instruments, invented by the exhibitor, for the operation of vesico-vaginal fistula. Figs. 6 and 7 show his quadrivalve speculum. This instrument dilates more internally than at the vulvar orifice, and exposes the fistula very satisfactorily to the view of the operator. The surrounding parts are put moderately on the stretch, and are favourably disposed for the application of the "fistula clamp." This instrument is supplied with points of different sizes and shapes, in order to suit fistulæ of varying extent. The lips of the opening are secured by being transfixed by the points or needles of the clamp; the transverse extremity of the

Fig. 1.

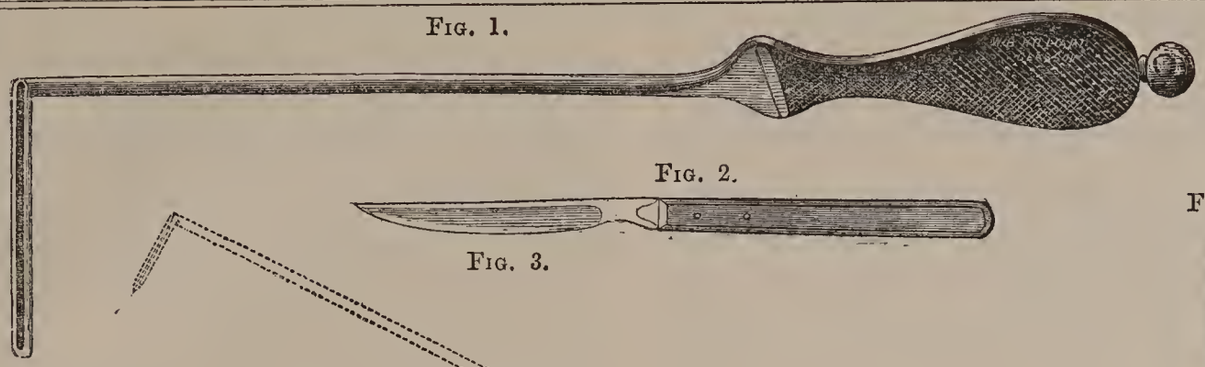

Fig. 2.

Fig. 3.

Fig. 5.

Fig. 4.

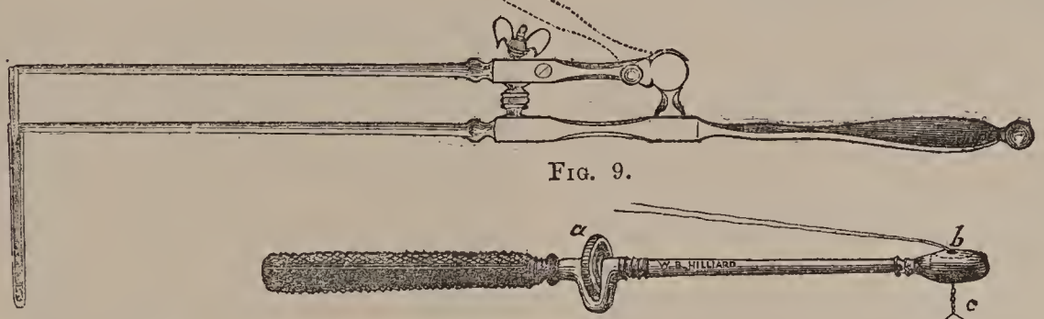

Fig. 9.

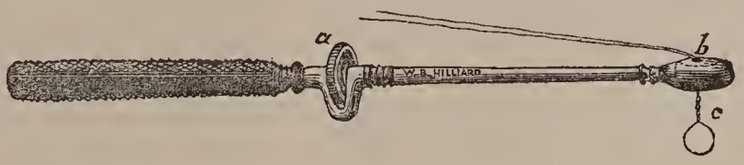

Fig. 6.

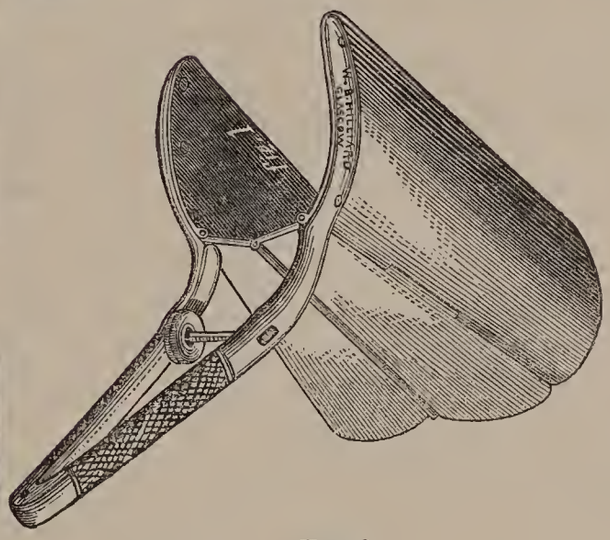

Fig. 7.

Fig. 10.

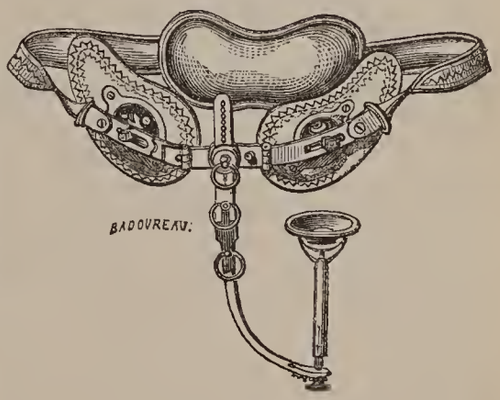

Fig. 8.

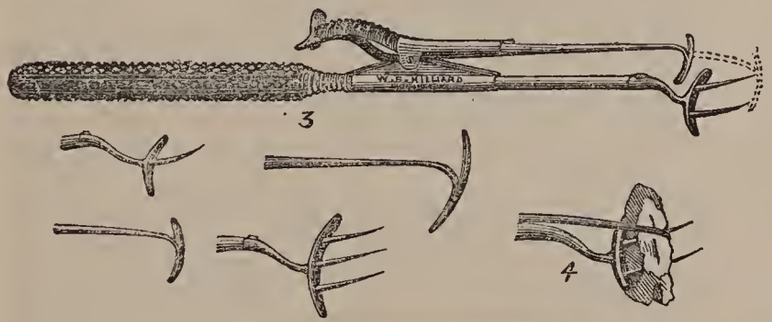

Fig. 11.

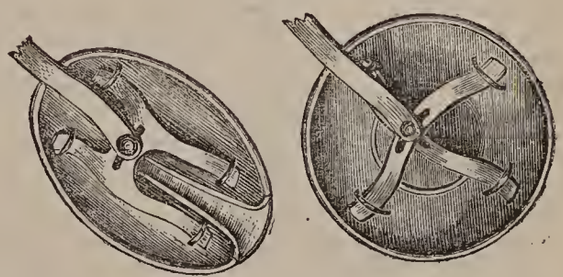

Fig. 12.

sliding rod is then passed over the points as they emerge from the posterior margin of the fissure, and the edges are thus kept approximated (Fig. 8). In this state they are easily pared with a curved or straight knife. The needle for inserting the metallic sutures is of the ordinary kind, and is furnished with a reel for holding a supply of wire. When the sutures have been passed, the instrument shown at Fig. 9 is employed; this is termed a "wire-twister and depressor," and is used in the following manner:—The ends of the wire (*c*) are passed through the divided aperture seen at the extremity of the instrument, and are drawn through until the edges of the incision are brought into proper apposition. When this is accomplished, a few turns of the button (*a*) steadily and securely twists the suture, and so completes the operation. These instruments have been employed with success; and I take this opportunity of observing, that they, in common with the rest of the contents of Mr. Hilliard's case, were remarkable for superiority of manufacture. I need add nothing in praise of the originality of those to which I have already referred.

In immediate proximity to Mr. Hilliard's case, Mr. O'Connell exhibited his feeding-bottle for infants. This is, in my opinion, the best contrivance of the kind that has yet been invented; and the nursery lamp, that accompanies it, is very ingenious and useful. I have but little doubt that Medical men and their patients will soon discard the ordinary "bottles" entirely from use, and employ that invented by Mr. O'Connell.

Mr. Bailey, of Oxford-street, exhibited some orthopædic and other appliances, to which I regret to be unable to refer at greater length. His spinal instruments and trusses were remarkable for their lightness, and the perfection of their manufacture; and I may also remark that I observed an excellent abdominal belt for employment during pregnancy, among the other appliances he exhibited.

There were some other French exhibitors in addition to those to which I have already alluded, whom it would not be fair to pass over entirely in a series of "Notices" such as that which I am now rapidly bringing to a close. Foremost among these is M. Lüer. Although this maker is not remarkable for frequent inventions, yet the thorough excellence of all his work entitles him to rank (as indeed he does) with the best of his contemporary manufacturers. M. Béchard exhibited spinal and other orthopædic instruments of considerable merit; as did, also, M. Le Belleguic. Messrs. Wickham, and MM. Le Perdriel and Marinier, also showed trusses in great variety; while those exhibited by M. Leplanquais were remarkable for their cheapness.

M. Loriol's trusses are furnished with an arrangement by which the wearer can regulate the size of the pad, and also modify its direction. Baths of various kinds were also to be seen in the French gallery. MM. Francois and Fouquet, and M. Charles, exhibited many varieties of douche and other baths, which were very ingenious and of great practical utility, and would be of great service in all our large Hospitals. M. Thiers contributed to the French department many useful inventions, among which I may notice his breast-pump, his apparatus for injection of the rectum and vagina, and his bottle for the use of infants: all these are clearly constructed, and likely to prove practically serviceable. His feeding-bottle is, however, decidedly inferior to that invented by Mr. O'Connell, to which I have already drawn attention. In the same dark corner, side by side with M. Thiers' contrivances, was the pessary of M. Grandeollot. I cannot help thinking, in spite of the ingenuity of the principle on which this instrument is constructed, and the flattering report of M. Robert upon it, that it is by far too cumbrous and expensive ever to come into anything like universal use. It was so placed as to render an examination of it rather difficult, but I hope, by means of the adjoining illustration, Fig. 10, to make its advantages clear to my readers. It consists, then, of a hypogastric belt, furnished with two pads of considerable size, the pressure of which is brought to bear on each side of the uterus, and hence, is likely to aid in correcting any lateral displacement of that organ; these pads are connected by a metallic bar, so constructed as to allow of a certain amount of movement. To this bar is attached a curved metal rod, which passes downwards and backwards in front of the vulva, and supports, at its posterior extremity, another rod, which is more or less vertical in direction, and which, being worn in the vagina, is destined to support and retain in place the uterus, by means of a cup-shaped piece of India-rubber, in which it terminates. This last-mentioned rod is straight, and is formed of two hollow pieces of metal, sliding one in the other; and furnished, in addition, with such articulations as render almost any movement of the body possible without interfering with the direction of the uterus. M. Robert, in his report to the French Imperial Academy of Medicine, adduces a certain number of cases in which this contrivance seems to have been worn with good results, and but little, if any, inconvenience; but I can hardly help expressing my opinion that its expense would be a great reason for its non-employment, while its general cumbrousness would also militate against its frequent use.

To conclude this, my last "Notice" but one, I will draw attention to some of the instruments exhibited by Mr. Matthews, of Portugal-street. This maker has long been known to the Profession as a producer of instruments of the best kind, and a glance at his case in the late Exhibition must have fully proved the justice of the general opinion. Among other objects of interest, he exhibited the trusses which Mr. John Wood has devised as being more fit than any others for the retention of the different varieties of hernia. It must have long been clear to all practical Surgeons that the contrivances of the kind I am alluding to are all, more or less, unsatisfactory in their action. I have, indeed, already remarked (in one of my earlier papers) on the gradual increase of size of a hernial protrusion which is often seen to follow the employment of the very convex pad which some makers still adopt. For oblique inguinal hernia, Mr. Wood advises the use of a pad which has a *flat* surface, and is of an elongated ovoid shape; a portion of its circumference being cut out, so as to convert it into the form of a horse-shoe, placed obliquely. The object in this arrangement is to bring the pressure to bear on the sides and pillars of the canal and external ring, so as to promote their contraction, instead of the invagination of the soft parts. For ordinary cases, the material employed is box-wood, with the edges well rounded off, the side-spring being fastened by a screw into the exact centre of the pad, so as to distribute the pressure equally. In more difficult cases, the basis of the pad is composed of a thin plate of German-silver or steel, considerably turned up at the edges. In the hollow thus formed, a double spring, H shaped (see Fig. 11), works under braces upon the centre of the cross-piece; the side-spring is fixed in a slit by means of an adjusting screw. The pressure can thus be made more on one pillar than on the other, in case the hernia has a tendency to escape on one side. The surface of the pad intended to be next the skin is either covered with vulcanized India-rubber or leather.

For direct inguinal rupture, the shape of the pad is a flat ovate ring, with a circular perforation occupying the middle third. In the box-wood pad, a metal bar, crossing the perforation, is attached, by a screw, to the end of the side-spring. In the adjusting pad, the springs are arranged in the shape of the letter X, with slits placed on the point of crossing for the reception of the screw fixing the side-spring. The lower part of the ring covers the deficiency of the soft parts just above the pubis, while the flat circumference presses upon the sides of the opening, tending to close them up towards the centre, and renders all invagination impossible. (See Fig. 11.) For femoral hernia, a pad of an elongated oval shape, without chink or perforation, is employed. The centre of the surface, which is applied to the skin, is quite flat, tapering off gradually at the lower, and abruptly towards the upper, part. An adjusting pad for this kind of rupture is made upon the same plan as that for direct inguinal rupture, with an X spring, and adjusting slide and screw. It is at once clear that these instruments are constructed on the soundest anatomical knowledge, and I have not any doubt but that they will be found to be of great practical value.

Mr. Matthews also exhibited Mr. Wood's dilating staff for his operation of lithotomy. This instrument (Fig. 12) fulfils the purposes of a staff and of a dilator of the prostate, and consists of a tubular shaft, mounted with a stout handle, and carrying at the opposite end a half-blade of the usual curve (*a*), placed obliquely in reference to the axis of the shaft, and immoveable upon it. At the junction of the shaft and half-blade is placed a slight projection (*d*), intended to render the position of the staff clear when in the bulbous portion of the urethra. For about an inch at the commencement of the curve of the half-blade, there is a deep groove (*e*) on the inner or flat surface, by pressing the knife into which the operator opens the membranous part of the urethra. The other half-

blade has a corresponding curve, and is moveable, being connected with a lever placed at the end of the handle, by a rod passing through the latter and along the interior of the cylindrical shaft. By pressure made with the thumb of an assistant upon this lever (*e*), the movable blade can be protruded, and, at the same time, turned upon the axis of the shaft, so as to open the blades both laterally and antero-posteriorly. The prostatic portion of the urethra can be thus dilated, so as to admit of the operator's finger being passed between the blades of the instrument, so as to still further dilate the prostate, and afford a safe guide into the bladder. The posterior blade is, at the same time, laid flat upon the base of the bladder, and holds it firmly down on the perineum, thus preventing that viscus from receding before the pressure of the finger. A pin placed in the interior connecting rod at the handle (*f*), prevents the blade from turning the wrong way.

The operation performed by Mr. Wood is adapted to combine the advantages of free external incision with a safe and limited division of the deeper parts. The dilating power of the instrument renders it easier to divide the stretched membranous part of the urethra, and to place the finger fairly into the urethral canal; while it forms a sure guide into the bladder itself, which is held firmly down during that part of the operation. The knife which Mr. Wood employs has a small and narrow blade, capable of being passed along the finger to touch any tissues which may resist the dilatation. The external incision, practised by him, is lunated, having its concavity turned towards the anus.

In my next "Notice" I hope to draw attention to some more of the instruments exhibited by Mr. Matthews, as well as to the contents of Messrs. Ferguson's case, and so bring my remarks on the late Exhibition to a close.

47, Hans-place, S.W.

GENERAL CORRESPONDENCE.

THE ACTION OF DIGITALIS IN CARDIAC AFFECTIONS.

Letter from Dr. Arthur Leared.

[To the Editor of the Medical Times and Gazette.]

Sir,—Always greatly interested in any therapeutic remarks on remedies of undoubted activity, I am still more so when they come from such observers as my friend, Dr. Handfield Jones. In your last Number he has made the somewhat startling assertion, that digitalis most probably acts as a cardiac tonic, and "that it may be given with advantage in cases of great cardiac debility." But, in his statement of the various modes in which digitalis may be supposed to act beneficially in diseases of the heart, one pointed out, if I mistake not, by Dr. Corrigan, has been omitted. It is this: in disease of the aortic valve, increased cardiac action is compensatory, and the sedative effects of digitalis would be injurious; in other words, the efforts of the ventricle to make up by increased action for the effects of either regurgitation or obstruction at its outlet, cannot be interfered with without injury. In mitral valve disease, on the contrary, the indication is to diminish the action of the ventricle so as to allow it to be filled as much as possible, in order that the blood may be sent into the aorta in a full stream, and, therefore, digitalis is in such a case most useful. This ingenious explanation has appeared to me well founded, and as such I have been in the habit of mentioning it in my lectures, when speaking of the uses of digitalis. I may add, that it accords clinically with my own observations. The diagnosis as to the particular valve diseased is often difficult, and sometimes impossible. But may not the very different statements as to the action of digitalis in diseases of the heart be largely due to an undiscriminating exhibition of this powerful drug in pathological conditions of the organ which are totally distinct? I am, &c.

Arthur Leared, M.B.

12, Old Burlington-street, December 13.

MEDICAL EVIDENCE—THE ALLEGED CASE OF POISONING BY JALAP AND CROTON-OIL.

Letter from Dr. Scholefield.

[To the Editor of the Medical Times and Gazette.]

Sir,—A case occurred a short time ago which illustrates the inconvenience of requiring Medical men in general practice to give, off-hand and in the witness-box, opinions on new, obscure, and difficult points. I mention neither name, time, nor place, because the newspaper report (which I enclose) may have misrepresented the evidence of the Medical witness.

Eight persons partook of a sheep's "pluck," which had been drugged with croton-oil and jalap. The druggist says that he sold two drops of the oil with a drachm and a-half of jalap for this purpose. The person who bought the drugs says that six drops of "something" was added. Let us suppose, then, that we have six drops of croton-oil with a drachm and a-half of jalap administered to eight persons.

It appears that one of the eight was attended by the Medical witness about six weeks after the drugged supper. He found the man suffering from "muco-enteritis," and, after two weeks' attendance, he died. A post-mortem examination disclosed "inflammation of the small bowels, patches of ulceration in the ilium, and peritonitis."

What caused these "appearances?" The Medical witness affirmed that they were caused by the croton-oil and jalap; and, in consequence of this opinion, two men stand charged with manslaughter.

I do not pretend to go into the whole case; I merely mention, without enlarging on the facts, that the deceased was a "perfectly healthy" man, that he recovered so far from the sickness and purging as to appear "quite well" to his companions, that he "danced, fought, and got drunk" some time afterwards, that he "was out of work and badly off," and that he himself "did not think his later illness"—the illness which occurred after he recovered from the effects of the supper—"was caused" by that supper. I confine myself to one point, namely:—How does the Medical witness support his position, that death was caused by the croton oil and jalap?

He says that "he had never known a case of poisoning by croton oil and jalap, or by either of them." And yet he affirms that he knows that croton oil and jalap, both or either, will produce the appearances described from the post-mortem, and cause death eight weeks after the first and only dose.

The Coroner very properly asks, "What quantity of croton oil would be sufficient to cause death?" Here is the answer:

"It depends on the manner of taking it. If taken in any hot fluid its effects would be accelerated. In the case in question, two drops of croton oil taken in hot liquid would be sufficient to cause the appearances," etc.

This is a tolerably precise opinion for a witness to give on a matter which he knows nothing about, and which opinion is to consign two men over to be tried for (and of course acquitted of) manslaughter. It appears that two drops of croton oil taken hot will cause muco-enteritis and peritonitis of a chronic nature, and allow a man to dance, drink, fight, starve, and die in about eight weeks.

The witness afterwards states that "one drop is a dose of croton oil, but that two drops were sometimes given." Now, on his own showing, two drops "were sometimes given" as a dose? Moreover, could he prove that the deceased had swallowed two drops? The druggist only admits two drops in the whole. Another man thought six drops of something were added to the mass. But let us admit the two drops each, and then call in Dr. Christison:

"Croton oil, in large doses, is a dangerous poison. Forty croton seeds have killed a horse in seven hours, and thirty drops have killed a dog. . . . In obstinate constipation, two drops with ten grains of colocynth will generally prove sufficient. I have repeatedly, however, known this dose given thrice, at short intervals, before moving the 'dura ilia' of some Hospital patients. . . . It may be used to strengthen castor oil in the dose of one or two drops. The dose of croton oil is from one drop to six drops."

The subject need not be further pursued.

The Medical witness attends a man suffering from enteritis, conjoined with peritonitis. He overlooks the peritonitis, and wonders why his remedies are ineffectual. He hears of a supper of drugged "pluck." The man is dying of poison. He jumps to a conclusion, grasps at any tangible or intangible evidence, and—I will not say what follows.

I repeat the old conclusion—"Let Medical witnesses describe facts faithfully and fully, and leave opinions to others."

I am, &c.

Pickering, December. W. J. Scholefield.

RECURRENCE OF CALCULUS IN THE BLADDER.

LETTER FROM MR. R. H. MEADE.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your Journal for November 29, a case of recurrence of stone in the bladder of a child eight years old, is recorded by Mr. Haynes Walton, in which a calculus, measuring an inch by half an inch, composed of phosphate of lime, was removed by him, by lithotomy, only ten months after one still larger had been taken out of the bladder by Mr. Bowman.

The perusal of this case has reminded me of one that occurred in my own practice, which was very similar, with the exception of the interval between the two operations being longer.

On October 3, 1856, I removed, by lateral lithotomy, from a little boy nearly three years old (the son of a farmer residing a few miles from Bradford), a calculus, composed of urate of ammonia, which measured nearly an inch and a-quarter by three quarters of an inch. It was rough and crystalline on the surface, showing that there were no others in the bladder at this time. The child recovered very rapidly from the operation, and remained well for about two years, when fresh symptoms of stone showed themselves. The parents did not like the idea of his undergoing another operation, and would not consent to anything being done, with the exception of giving him medicines to allay the irritation of the bladder, until his sufferings became very great: then, however, they brought him to me again, and I repeated the operation on March 1, 1861 (four years and five months after the former one), extracting, on this occasion, two calculi, of large size for a child,—one measuring an inch and a-half by an inch, and the other an inch and a-quarter by three quarters. These stones were smoothly polished on the surface, and were composed of urate of ammonia, with an incrustation of phosphate of lime on one end of each. The little fellow quickly recovered the second time, and continues at present in good health. I am, &c.

Bradford, December 3. R. H. MEADE, F.R.C.S.

LETTER FROM THE FEDERAL CAMP.—A Canadian, a Montrealer, writes, on the 20th ult., from "near Fort Edith Allan, Virginia,"—"We left Maryland three weeks ago, and marched through Washington for this State, where we are now encamped in the midst of about 80,000 men of all branches—Artillery, Cavalry, and Engineers. We are under marching orders, and on the *qui vive* to move. Our duties are pretty severe; day after day, from sunrise to sunset, digging trenches, rifle pits, and building mud forts; and at night picket and guard duty. I have not had my clothes off for three months, lying on the bare ground with a blanket and cloak, and the weather now is pretty cold. We have had snow ten inches deep round our tents; and sickness is pretty prevalent among the troops, in the shape of jaundice, typhus fever, and dysentery. We have already lost a good many men; they do not stand the cold so well as would be expected, considering they come from a northern climate; the fact is, that most of the men left comfortable homes for fear of being draughted, and have not been used to the night exposure. The dews are extremely heavy, besides great falls of rain that we get here, with boisterous winds. The other day I awoke with my tent on the top of me, and nearly half a foot of water under me. However, as yet I have been fortunate enough to escape sickness. Our food at present is very indifferent, and short allowance. We have, as yet, received no pay since enlistment, and see no immediate prospect of getting any. The whole system of carrying on the war has been shameful; and now it appears that those in authority have been playing into the hands of the rebels, assisting them with provisions and clothing that properly belonged to our forces. The army appears to be thoroughly discontented, and desertions continually take place. I expect by the time the winter is over, if something effectual does not take place, two-thirds of the army will desert, or lay down their arms. I am writing this on my knee, so you must make allowances for its deficiencies. The country about here looks fearfully desolate—all the timber laid waste, country places deserted, and the soil running waste with vegetation."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 9, 1862.

Dr. BABINGTON, President, in the Chair.

A paper, by Mr. J. JARDINE MURRAY, of Brighton, communicated by Mr. CHARLES H. MOORE, was read on a

CASE OF A WOMAN WITH THREE HANDS—ILLUSTRATED BY ANALOGOUS MALFORMATIONS IN THE LOWER ANIMALS.

The case, which was illustrated by large photographs, derived additional interest from the circumstance, that no similar malformation has been met with in the human species. The patient, aged 38, was a well developed, healthy, active, and intelligent woman. She was married, and has had one child, in all respects normal. None of her relations had been or is the subject of malformation. The left upper extremity was the only abnormal part. The limb was muscular, the shoulder natural, and the external condyloid ridge of the humerus very prominent. Flexion of the elbow-joint was imperfect. The supernumerary hand was somewhat smaller than that which it so strangely accompanied. The thumbs were rudimentary. In working as a charwoman, the patient leans on the back of the flexed carpus. The double-hand could grasp firmly, though the maximum of power was not equal to that of the woman's right hand. Sensation was equally acute in all three hands. The case affords interesting material for speculation. Explanation was sought for by referring to comparative teratology; and drawings of two cases of double fore-foot in the pig were exhibited, in both of which the duplicity, as in the double hand, begins at the carpus. Drawings and preparations of somewhat similar malformations in birds were also shown.

A paper, by Mr. SPENCER WELLS, was read on the

HISTORY AND PROGRESS OF OVARIOTOMY IN GREAT BRITAIN; WITH OBSERVATIONS FOUNDED ON PERSONAL EXPERIENCE OF THE OPERATION IN FIFTY CASES.

The author commenced by proving that ovariotomy is an operation of British origin. It was first suggested by William Hunter, was warmly advocated by John Bell, and was first practised by Dr. McDowell, an American pupil of John Bell. He then proved that its subsequent progress is chiefly due to the labours of British Surgeons. He traced the progress of the operation from its first performance in Scotland by Mr. Lizars, in 1823, Dr. Granville's attempts in London in 1827, and the first successful case in England in 1836, by Mr. Jeaffreson, of Framlingham, to several other successful cases by provincial Surgeons in that and the two following years. Mr. Morgan's attempted operation in 1839, and Mr. Phillips' completion of the operation for the first time in London in 1840, were also noticed, as well as the unsuccessful cases of Mr. Key and Mr. B. Cooper at Guy's in 1843, and the commencement, in 1842, of Dr. Clay's long series of operations. This review showed that ovariotomy had never been successfully performed in London twenty years ago, although at least ten successful cases had been recorded by provincial Surgeons. The successful cases in London, in 1842 and 1843, by Mr. Walne, Dr. F. Bird, and Mr. Lane, were next noticed, and the first successful case in a large London Hospital, at St. George's, by Mr. Cæsar Hawkins, in 1846, as well as many other cases in the provinces in the four following years. Mr. Duffin's case in 1850, by which he showed the importance of keeping the strangulated portion of the peduncle outside the peritoneal cavity, was alluded to as the inauguration of a new era in ovariotomy. The effect of the various papers published in former volumes of the *Transactions*, and the discussions which had taken place in the Society, were then shown to have had an unfavourable effect upon the progress of the operation, as did a number of unsuccessful cases which occurred between 1852 and 1856; so that when the author began to operate in 1858, ovariotomy was at a very low ebb in Professional opinion. After alluding to the introduction of the clamp by Mr. Hutchinson, and his own modifications of the details of the operation, especially with regard to the means of securing the pedicle, closing the wound,

avoiding the abuse of opium, and supplying fresh air to the patient instead of hot vapour; the author gave the results of his whole experience of the operation in the following table:—

Series I.—In which Ovariotomy was completed—50 cases: 33 recoveries; 17 deaths.
,, II. ,, ,, was commenced, but not completed—3 cases. No death from the operation.
,, III. ,, an exploratory incision was made in aid of diagnosis—3 cases. 1 death.

Series I.—Fifty Cases in which Ovariotomy was Completed.

No.	Date.	Age.	Condition.	History, etc.	Result.
1	1858. Feb.	29	Unmarried.	Had been tapped seven times and injected with iodine twice. Multilocular, 26 lbs.	Remains quite well.
2	Aug.	38	Married.	Had been tapped three times. Multilocular cyst, 31 lbs.	Remains quite well.
3	Nov.	33	Married.	Never tapped. 57 lbs. of ascitic fluid removed. 23 lbs. pseudo-colloid ovarian tumour.	Recovered, and remained well for some months, but died 10 months afterwards of cancer of peritoneum.
4	1859. Jan.	39	Unmarried.	Pseudo-colloid tumour, 10½ lbs.	Died 32 hours after operation.
5	May	43	Married.	Pseudo-colloid tumour, 10 lbs., surrounded by six gallons of ascitic fluid.	Remains well.
6	June	29	Married.	Fibrous and cystic tumour, 7½ lbs., surrounded by ascitic fluid.	Died on second day.
7	June	29	Unmarried.	Tapped twice. Multilocular.	Recovered.
8	July	47	Married.	Often tapped. Both ovaries removed.	Recovered, and remained well 2 years, and then died of heniplegia.
9	Oct.	41	Married.	Tapped twice. Multilocular cyst, 38 lbs.	Remains well. Had a child 13 months after operation.
10	Oct.	37	Unmarried.	Multilocular cyst, 19 lbs.	Died on the fourth day.
11	Oct.	29	Unmarried.	Multilocular, 42 lbs.	Remains well.
12	Oct.	38	Married.	Tapped twice. Multilocular, 53 lbs.	Died, on the ninth day, of tetanus.
13	Nov.	17	Unmarried.	Tapped eight times. Multilocular, 38 lbs.	Remains well.
14	Dec.	27	Unmarried.	Tapped nine times. Multilocular, 54 lbs.	Died 23 hours after.
15	1860. Jan.	23	Unmarried.	Tapped twice. Multilocular, 25 lbs.	Remains well.
16	Feb.	26	Married.	Tapped twice. Multilocular, about 25 lbs.	Died 30 hours after.
17	Feb.	33	Married.	Tapped five times. Multilocular, 31 lbs.	Died, 46 hours after, of intestinal obstruction by pedicle.
18	July	41	Married.	Multilocular cyst, about 26 lbs.	Remains well.
19	July	36	Unmarried.	Multilocular, about 24 lbs.	Remains well.
20	Oct.	53	Married.	Very large multilocular, more than 50 lbs.	Remains well.
21	1861. Jan.	54	Married.	Multilocular, about 20 lbs.	Remains well.
22	March	22	Unmarried.	About 16 lbs., multilocular.	Remains well.
23	April	55	Married.	Semi-solid, about 20 lbs.	Remains well.
24	April	42	Married.	Very large multilocular cyst.	Died, 24 hours after.
25	June	34	Unmarried.	Multilocular, 55 lbs.	Died, 4 days after.
26	July	31	Married.	Multilocular, more than 50 lbs.	Died, 2 days after.
27	Aug.	27	Unmarried.	Nearly single cyst. 44 lbs. of fluid.	Remains well.
28	Aug.	35	Unmarried.	Tapped twice. Multilocular, about 17 lbs.	Remains well.
29	Oct.	54	Married.	Ascitic fluid round large colloid cyst, about 35 lbs.	Died, 47 hours after.
30	Dec.	50	Unmarried.	Tapped nine times. Multilocular, 40 lbs.	Remains well.
31	Dec.	46	Married.	Fibrous tumour, 27 lbs.	Died, 12 days after.
32	1862. Jan.	30	Unmarried.	Multilocular.	Died, 30 hours after.
33	Jan.	47	Married.	Multilocular, about 30 lbs.	Died, fifth day.
34	Jan.	32	Married.	Multilocular, very large.	Died, third day.
35	May	30	Unmarried.	Multilocular.	Died, thirteenth day, of tetanus.
36	May	41	Married.	Very large multilocular.	Remains well.
37	June	35	Married.	Large semi-solid tumour.	Remains well.
38	June	28	Unmarried.	Multilocular. Had been injected with iodine.	Remains well.
39	June	25	Married.	Large multilocular.	Remains well.
40	July	20	Unmarried.	Over 40 lbs., multilocular.	Remains well.
41	July	41	Unmarried.	Large semi-solid tumour.	Remains well.
42	Sept.	49	Unmarried.	Adenoid tumour.	Remains well.
43	Oct.	24	Unmarried.	Very small cyst, 7 lbs.	Remains well.
44	Oct.	56	Married.	Large multilocular.	Died 40 hours after
45	Oct.	43	Unmarried.	Large semi-solid.	Recovered.
46	Nov.	32	Unmarried.	Cystic and adenoid.	Convalescent.
47	Nov.	23	Unmarried.	Multilocular cyst.	Convalescent.
48	Nov.	50	Married.	Large multilocular.	Convalescent.
49	Nov.	23	Unmarried.	Large multilocular.	Convalescent.
50	Nov.	17	Unmarried.	Large multilocular.	

Series II.—Three Cases in which Ovariotomy was Commenced, but not Completed.

No.	Date.	Age.	Condition.	History, etc.	Result.
1	1857. Dec.	28	Unmarried.	Incision made, and intestines found anterior to tumour.	Recovered from incision, and died 4 months after from spontaneous rupture of cyst into peritoneal cavity.
2	1860. Oct.	21	Unmarried.	Abandoned, from extent and closeness of parietal adhesions.	Recovered, and was tapped seven times afterwards; she died, a year after.
3	1862. Oct.	46	Married.	Abandoned from connections around brim of pelvis, and to uterus and bladder.	Partially recovered, but died 3 weeks afterwards of rupture of a cyst into peritoneal cavity.

Series III.—Three Cases in which an Exploratory Incision was made.

No.	Date.	Age.	Condition.	History, etc.	Result.
1	1860. Sept.	38	Married.	Found the extensive attachments suspected, and simply tapped.	More relieved than by tapping, but died of natural progress of disease after 15 days.
2	1861. Oct.	30	Unmarried.	Found the close attachments to bladder which had been suspected before the incision was made.	Recovered; has been tapped twice since.
3	1862. Feb.	37	Married.	Found very firm parietal adhesions, as suspected. Tapped several cysts.	Died a week afterwards from inflammation of lining membrane of cyst.

He then attempted to correct some errors which tended to retard the progress of the operation, showing that many of the alleged difficulties of diagnosis were easily overcome: and that, as after other capital operations, the better the general health of the patient, and the smaller the injury that is done in the removal of any diseased part, the greater is the probability of success. He proved that when patients recovered they were restored to perfect health, had lived many years, and had borne children of both sexes. In conclusion he left the Society to determine "whether an operation which has led to such results is still to be stigmatised as unjustifiable; whether they who perform it are necessarily open to the

reproach that they do so rather to serve their own selfish purposes than for the good of their patients; whether they who, in the face of evidence sufficient to convince any unprejudiced mind, withhold from their patients a tried and approved mode of curing a disease otherwise incurable and certainly fatal, are not open to still more serious reproach; and whether it does not become us—as men of science, who practise our art, not for our own advantage only, but with the earnest desire to do the very best that can be done for those who are confided to our care, and who trust in our knowledge, our skill, and our honour—no longer to condemn and oppose this operation, but rather to study its past history; to regard it with pride, as an offspring of British genius cultivated by British industry; and to assist its future progress by perfecting our means of diagnosis, and, by investigating the avoidable and removable causes of excessive mortality, reduce it to the comparatively low proportion to which it may be, and will be, reduced, and thus render ovariotomy, in each coming year, more honourable to British Surgery, and more useful to Mankind."

Dr. Graily Hewitt remarked that, in common with others interested in the treatment of ovarian disease, he had paid some attention to the subject, with a view of arriving at a conclusion on the important question of the performance of ovariotomy, and he begged to submit some results of his inquiry into the matter. It always appeared to him that the first and weightiest question to decide in reference to the matter was the following one:—What is the natural history of ovarian disease such as would be likely to be considered suitable for operation by ovariotomy, in cases where no such procedure is attempted? Upon the answer to this question turns the whole decision; and the question must be answered, seeing that the argument, that such and such cases would not have ended fatally if they had been left alone, is perpetually made use of by those opposed to the operation. It is evident that this question has been too little considered. Very few attempts have been made to arrive at some definite conclusion on this point. The difficulties involved in procuring the desired information are very considerable, and it can only be in the cases of Practitioners of long standing and experience, and who have been, moreover, in the habit of recording their experience, that it can be obtained. Even then the results procured are numerically limited, from the fact, that many cases must pass under observation for a time only, and the record as to the mode of termination of the case is wanting. He had been able to procure but few data on the subject; but such as they were he would now submit. In a valuable series of Clinical Reports on Diseases of the Ovaries, published nine years ago, Dr. Lee, a much respected Fellow of the Society, had related his experience, and an examination of Dr. Lee's cases gave the following results:—Out of a much larger number of cases of presumed disease of the ovaries, there were 44 complete cases, respecting which the account given left no doubt that the cases were such as could be fairly compared with those which, by individuals in favour of ovariotomy, would be thought proper cases for the operation; that is to say, they were cases in which, from the size of the tumour, its physical qualities, such as fluctuation, the fact of tapping having been performed, or some other distinctive characteristic, it could be stated that they were cases of progressive ovarian disease. Cases were necessarily omitted in which the result of the case was not given, or in which the tumour was so small that the question as to ovariotomy would not have arisen. Now, the data afforded by these 44 cases, as to the natural history of such disease, gave the result, that in 32 instances a positively fatal termination occurred, the cases being left to ordinary palliative treatment, tapping, etc. In 1 case the inference is that the patient died, in 1 the inference is doubtful, in 2 the patients were apparently dying, and in 1 other case the disease was "proceeding rapidly to a fatal termination." On the other hand, in 1 case the disease had not reappeared after a tapping 26 years previous, in 1 little progress had been made in 3 years, in 2 the patients were alive after a period respectively of 2 and 3 years, in 2 death took place from ovariotomy, in 1 death occurred from an exploratory puncture. Thus, the 44 cases are divisible into two series: 84 per cent. of the cases died, no radical measures having been attempted, and 16 per cent. lived (including the cases of ovariotomy and exploratory puncture, which might, perhaps, more fairly be put into the other series) for a period of 2 or 3 years, so far as the report shows, and in 1 case for a period of 26 years. So far as he (Dr. Graily Hewitt) had found, there were no data afforded by other observers so extensive as those of Dr. Lee's. Of the 84 per cent. of cases with a fatal result, that result ensued, so far as can be judged from the report, within an average of a year and three-quarters. So far for the natural history of progressive ovarian disease. Next, with reference to the results of ovariotomy. The experience of the last few years, which only could be fairly taken as representing what could be done with ovariotomy, showed a favourable result of 68 per cent., 66 per cent., 70 per cent., figures so high as this, in the results of those who had operated most largely. Comparing, therefore, the results of the palliative and of the radical treatment, so far as the imperfect data belonging to the former class of cases allow us to do, it appears that the figures stand in the proportion of 16 to 60 or even 70. He would repeat that this was a most important point to consider in deciding for or against the treatment of ovarian disease by ovariotomy, the question which must be determined in each case being—What are the chances for the patient of surviving the effects of the disease when palliative measures only are adopted, as compared with the chances afforded by ovariotomy? He quite agreed with the author of the paper as to the great improvement that had been made in the diagnosis of cases, and its bearing on the favourable or unfavourable issue of cases. One error in diagnosis which had been of late more frequently committed than any other, was that of mistaking fibrous solid tumours of the uterus or ovary for disease of the more ordinary kind. It would be generally possible to avoid this by considering the history of the case. Large fibrous tumours, whether of the uterus or ovary, are of slow growth, as compared with tumours more properly suitable for ovariotomy.

Mr. Erichsen said he felt sure that all must have heard with deep interest the very valuable paper that had just been read. The results detailed in it not only reflected honour upon the author, but upon British Surgery, in which ovariotomy undoubtedly originated. Dr. Graily Hewitt had related the lamentable consequences that result from leaving an ovarian tumour to take its own course, and he (Mr. Erichsen) knew nothing more distressing than to witness the misery usually entailed by the gradual and progressive development of such a disease. What resource did Surgery offer for its cure except ovariotomy? Medicine had no effect upon a tumour that was an independent organism developing in the interior of the body. The minor Surgical means, such as iodine injections, were more fatal than the extirpation of the growth. The opponents of ovariotomy were bound to answer this question—"If you reject that operation, what have you to substitute for it?" But Mr. Wells had pointedly put it to this Society to state whether ovariotomy was a justifiable operation or not, and this question ought to be answered here. Now, how were we to judge whether an operation is justifiable or not? By these tests—by the consequences of the disease being left to itself, by the mortality attending it, and by the result following its successful performance. They had just heard the lamentable consequences of leaving ovarian disease to run its own course, and it was known that medicine was inoperative in checking it. Now, as to the mortality after ovariotomy. Several years ago, before ovariotomy had attained that degree of perfection and of comparative safety which improved methods of diagnosis and of operative manipulation have now given to it, Dr. Lyman, of New York, published a most able essay, containing an analysis of 300 operations performed up to that time; of these, the mortality was about 42 per cent. Since that period ovariotomy had greatly improved in safety, as was evidenced by the results of the operations of Mr. Wells, Dr. Tyler Smith, and others. The mortality now was probably not 30 per cent. Let this for a moment be compared with what occurred in other operations, which no Surgeon hesitated for an instant to undertake. It was old and trodden ground to compare it with the result of the operations for hernia, ligature of arteries, etc.; and in these cases also the comparison was scarcely fair, as these were operations of necessity, whilst ovariotomy was an operation of expediency, and not of immediate and imperative necessity. But compare it with "amputations of expediency" of the lower extremity. He (Mr. Erichsen) would take for this purpose the statistics of a most able paper, published two years ago in the *Transactions* of this Society, giving the results of amputations performed in one of the largest hospitals in London—Guy's,—where it was known, not only that the patients had the benefit of the most eminent professional skill, but all the appliances that wealth could afford for their recovery. In that very

able paper Mr. Bryant stated that the mortality after amputation of the lower extremity for tumours was 36 per cent., and the mortality after "amputations of expediency" of the leg was 66 per cent. Compare this result of amputations performed under the most favourable circumstances, by men of the greatest skill and judgment, with those of ovariotomy, and the advantageous position of the latter operation would be at once seen. Then take the next point—the result of ovariotomy as compared with other operations for tumours, say of the breast. No Surgeon hesitated to operate in cases of cancer of the breast, but he knew that the result was most unsatisfactory—certain, and probably speedy, recurrence; and he watched his patient with anxiety for the earliest signs of that return of the disease which he knew must inevitably occur. But how was it with ovariotomy? Why truly—

"Aut cita mors venit aut victoria læta."

If the patient survived the operation, her recovery was complete and permanent. There were, doubtless, a few exceptional cases, in which the disease might return in the other ovary, but these were so few as scarcely to deserve being taken into account. In the great majority of cases the patient was at once and permanently cured, without fear of recurrence. Considering, therefore, ovariotomy from all these points of view, it must be pronounced as a proper and a justifiable operation. There were some very important considerations connected with the diagnosis of ovarian tumours, and their conditions as affecting the probable result of operation, which deserved to be carefully studied. These were, the effect of concomitant dropsical effusions, of adhesions, and the influence exercised by the age of the patient on the operation. Errors had, no doubt, been made in the diagnosis of ovarian as in that of all other tumours, external or internal; but these were much less likely to occur, and did actually occur with much less frequency, at the present day, when the question of operation had perfected the diagnosis, than happened formerly, when so accurate a knowledge of the nature and conditions of these tumours was not necessary. With regard to concomitant constitutional mischief, as influencing the propriety of an operation, the Surgeon would, of course, be guided by those considerations that influenced him in all cases. But there were two special complications which were of peculiar importance: one was ascites, and the other anasarca of the general cellular tissue. Ascites appeared to him (Mr. Erichsen) always to be a serious complication, and he did not much like to operate in such cases. Anasarca had been shown by Dr. Clay to be a condition unfavourable to operation, and in this he fully agreed. Then, as to adhesions. These, undoubtedly, were a serious obstacle to the success of an operation. They were an evil in two ways: first, by prolonging the operation, and sometimes causing great difficulties in separating the tumour from neighbouring organs. It was in this way that the intestine had been ruptured, portions of the liver torn away, the peritoneum stripped up from the abdominal wall, and other serious and fatal mischief induced. But adhesions were dangerous in other ways. They often contained blood-vessels which could not retract in the dense substance of the adhesion, and, though they did not bleed much at the time of their division, did so afterwards, slowly oozing into the abdominal cavity, and giving rise to dangerous and fatal hæmorrhage. But adhesions were not an unmixed evil. When extensive, they seemed to obliterate the peritoneal cavity, to destroy the serous membrane as such, and to render it less liable to take on inflammatory action than when it was in its normal state. In this respect the peritoneum resembled the synovial membrane of joints. Just as we often see, that when the knee has been chronically inflamed, its synovial membrane destroyed and replaced by fibroid tissues, a great amount of mechanical violence in the way of forcible extension and flexion may be inflicted upon it without exciting inflammation in it; so in the peritoneum, when that has been coated with old adhesions and organised plastic matter, inflammation is little liable to occur. Adhesions, therefore, were very dangerous and troublesome at the time of the operation itself, but rendered the patient less liable to the after-danger of peritonitis. Another important element in the success of the operation was the age of the patient. So far as his experience went, it was entirely in accordance with the deductions made by Dr. Lyman from his table of cases, that the operation was much more dangerous in young than in elderly women. Although not contra-indicated by early age, it must be looked upon with more anxiety in young women from eighteen to twenty-five than in women beyond the middle age. The most successful age for its performance was after the cessation of the menstrual function; and every Surgeon who had had experience in the operation must have been struck by the great success often occurring in apparently most unpromising cases,—in women between fifty and sixty years of age. There were many other questions of the highest importance in connexion with this operation into which time would not allow him to enter; but on reviewing the whole subject, he (Mr. Erichsen) thought that the Society must reverse the decision to which it came ten or twelve years ago, and, instead of condemning ovariotomy, give that operation its hearty approval and justification.

Mr. Hutchinson stated that he thought Mr. Wells deserved much credit for prominently bringing forward his facts respecting ovariotomy. He hoped that one great point would be gained by the recent progress in Professional favour which this operation had made. In the future we might expect that patients would be operated on at much earlier periods than had hitherto been the case. To this, more than to any other change, he looked for an improvement in ovariotomy statistics. He agreed most fully with Mr. Erichsen in considering that the operation was a perfectly legitimate one. He had himself performed it in seven cases, with a result of four recoveries and three deaths. In an eighth case he had operated only on the afternoon of the day of meeting, and, therefore, could not include it. Now, as he had included several very bad cases in those operated on—one, especially, in which Mr. Erichsen assisted him, which was at a time almost beyond hope,—he considered four recoveries a very satisfactory result. He could fully confirm the statement of Mr. Wells, that when patients recovered they usually regained very excellent health, and were permanently restored to full enjoyment of life. As he did not believe that adhesions were of the slightest possible advantage, but, on the contrary, considered that their influence on the hopefulness of a case were entirely on the other side, he held it to be very desirable that cases should be operated on early, before they had had time to form. In thanking Mr. Wells for the support which his facts gave to ovariotomists, he begged also to thank, not less warmly, Dr. Robert Lee, since he considered that the paper recently read by him, in which, for the first time, statistics were ignored by an opponent of the operation, was the greatest triumph which its advocates had yet achieved.

Mr. Spencer Wells said that the importance of the point raised by Dr. Graily Hewitt could hardly be exaggerated. No Surgeon could be justified in performing any operation necessarily attended by serious risk to life, unless life was seriously threatened by the disease. If an ovarian tumour was not very large, or was not growing fast, no one would think of advising ovariotomy. It could only be justifiable when other treatment was useless, and life was threatened at no very distant period. But all experience showed that—putting aside some rare exceptional cases of women who lived for very many years with or without occasional tapping—it was rare for a patient to live for two years after an ovarian tumour had attained such a size as to raise the question of ovariotomy. He had stated his grounds for this belief in a paper read before the British Medical Asssociation at Canterbury, and it was very interesting to find that Dr. Hewitt's analysis of Dr. Lee's own cases more than confirmed the accuracy of his estimate of the duration of life under palliative treatment. He did not agree with Dr. Hewitt in regarding fluctuation as being necessarily found in progressive ovarian tumours. He had seen many cases of such tumours, which grew very rapidly, and yet fluctuation could not be detected; especially if there was much fat in the abdominal wall. Nor did he think that it could be called a mistake if a Surgeon removed a tumour, although he did not feel certain whether it would prove to be uterine or ovarian. The great questions were—"Is it movable, and can it be removed?" In two of his cases great doubt had been felt before the operation. One of them had been alluded to in the paper. The other patient had been examined by at least twenty gentlemen of great experience, and about half thought the tumour was uterine, and the other half ovarian. He himself felt great doubt, after repeated examinations; and though, at the time of the operation, he was inclined to think it was ovarian, he would not have been surprised if it had proved to be a peritoneal fibrous outgrowth from the uterus. Had it proved to be so, it would have been removed quite as

easily, and probably quite as safely as it was, though the patient made an excellent recovery. Provided the uterus and the tumour could be moved independently of each other, he thought the Surgeon need not be deterred from operating by any doubt as to whether the tumour were uterine or ovarian; and he certainly could not be accused of a mistake if, before his operation, he felt the impossibility of being positively certain as to his diagnosis. Mr. Erichsen's support of the principle of the operation by comparing the mortality with that of other recognised operations was most valuable. With regard to anasarca, he had been led to regard it as an unfavourable sign, and had noticed that many of the patients, in whom it had been present, had done badly; but he thought we were arriving at a sort of law that, when it merely depended upon the pressure of the tumour retarding the return of blood from the lower limbs, it was of no more importance than in pregnancy. But, when it depended on disease of liver, or spleen, or kidneys, or heart, or on leukhæmia, then it should lead the Surgeon to consider the case as unfit for operation. So with ascites. If it depended on disease of the liver, kidneys, or spleen, or on chronic disease of the peritoneum, the case was very unfit for operation. But if no such disease could be detected, and the dropsy seemed to be caused by the mere pressure of the tumour, or by its movements mechanically irritating the peritoneum, the effusion ceased as soon as the tumour was removed. He had seen several such cases do very well. In one there were fifty-seven pints of ascitic fluid, and in another forty pints. He could quite confirm Mr. Erichsen's statement, that patients above 50 years of age recovered remarkably well. He had operated on seven patients between the ages of fifty and sixty, and only one died. But he did not think young women unfavourable subjects for the operation. He had twice operated successfully on girls of seventeen, and of fifteen cases between twenty and thirty, twelve had recovered. Between forty and fifty, of eleven cases, seven had recovered. But, between thirty and forty, of fifteen cases, only six had recovered. They seemed to do better before thirty or after forty, than between those ages. Whether this was accidental, and would be corrected by a larger number of cases, he could not say. He quite agreed with Mr. Hutchinson's remarks as to adhesions, although in many cases very extensive adhesions had not appeared to have any retarding influence upon recovery; and he concluded by thanking the Society for the attention which had been paid to the paper.

THE MIDLAND MEDICAL SOCIETY.

TUESDAY, NOVEMBER 18.

Dr. MELSON, President, in the Chair.

MR. FURNEAUX JORDAN showed a photograph of a case of

SUPRA-MALLEOLAR ANNULUS,

which had been sent to him by Professor Vaugreti, of Padua. The illustrious Professor of Surgery had forwarded with it a report of the first case which had been described in Italy. The report was in the form of a paper read at the Institute of Literature, Science, and Art, at Venice, and appeared in the Acts of the Institute under the following title:—"On a Case of Supra-Malleolar Collar-like Pachyderma," a malady described, for the first time, by Mr. Furneaux Jordan, of Birmingham, under the name of "Fibro-Cellular Annulus of the Leg."

Mr. JOHN CLAY read a paper on

LACERATIONS OF THE PERINÆUM.

The author first referred to the social and physical effects of the accident, and subsequently to the pathological results, remarking that hæmorrhage and death occasionally ensue. After observing that the cases occur chiefly in primiparæ, Mr. Clay proceeded to describe the varieties of laceration. In the course of a lengthened paper, he observed that the accident never occurs in the lower animals where the perinæum is not supported. Partial laceration is not easily detected. With the finger it is very difficult, and with the eye it requires a good light. The reader of the paper then passed on to enumerate the causes of laceration, and the best means of avoiding them. He thought that the best position during the last steps of the parturient process was on the back, with the thighs separated: this permitted the child to curve towards the abdominal surface of the mother. His observations, generally, were unfavourable to the practice of supporting the perinæum.

TUESDAY, DECEMBER 2.

Dr. MELSON, President, in the Chair.

Dr. RUSSELL read the details of two cases of

PERICARDITIS.

On the peculiarities which they presented, he made the following, among other observations. An important source of danger in acute rheumatism is pericarditis—a danger which is aggravated by the occurrence of adhesion. It is true, that a simply adherhnt pericardium is not inconsistent with tolerable health; not so, however, if the muscular tissue (so prone to consequent degeneration) be involved in the inflammatory process. A particularly unfavourable complication is adhesion of the pericardium to the sternum. A pericardium which, on the one side, is everywhere adherent to the heart, and, on the other side, is adherent to the sternum, affords the strongest grounds for alarm. The danger may, moreover, be increased by the accession of endocardial lesion. This complication is significant, because it is less susceptible of repair than pericardial inflammation. A heart beset with the difficulties which have been alluded to, is in a position favourable to the deposition of fibrine in its cavities—a deposition to which there is a strong predisposition in the well-known excess of fibrine in the blood which attends on acute rheumatism. Dr. Russell concluded his paper with a detailed consideration of the remedies resorted to in pericarditis.

LEGAL INTELLIGENCE.

WHAT IS GOUT?

FOWKES AND ANOTHER *v.* THE MANCHESTER AND LONDON LIFE ASSURANCE COMPANY.

THIS was an action on a policy effected by one Henry Fowkes for £1000. The action was brought by his executors. The company pleaded that certain of his answers were untrue, and (in another plea) that they were designedly untrue. A third plea alleged that he had obtained the policy by fraud, or by the omission of a material fact, of which the company ought to have been made aware.

The policy was effected by Fowkes, a commercial traveller, in Birmingham, in the year 1860. He was then 49 years of age. He was asked whether he had ever been afflicted with gout, and he answered "No." He was asked whether the life had been offered at any other office, and, if so, whether it was accepted, and he answered that it had been proposed, and had been accepted at an ordinary rate. These were the answers which it was alleged were false. He died in June, 1861.

The issue being on the defendants, they began, and

A Surgeon from Birmingham was called, who stated that he had attended the deceased, and in May, 1858, he believed he was suffering from suppressed gout. He had "an extremely slight attack of gout," and the witness gave him medicines to "bring it out." It came out in the great toe (laughter), but was "out" only a short time—not more than 48 hours. Witness thought he told the patient what was the matter with him, but could hardly say at this distance of time whether the patient had shown the toe, or he had asked to see it. Gout, however, was usually expected in the toe (a laugh), and the symptoms were such as the patient could see and feel—redness, tenderness, &c. He believed that the deceased died of suppressed gout in an aggravated form.

Mr. Huddlestone, on the part of the plaintiffs, urged that, as to the first question, it was not whether the assured had ever had the gout, but whether he had ever been "afflicted with gout," and this meant far more than merely having it, and meant some sensible and conscious suffering from it. His learned friend had said that no one who ever had it could doubt or forget it; but, on the contrary, it was probable that few persons over 40 escaped it, though very few were conscious of it; and it appeared that doctors doubted it. He should call relatives of the deceased to show that he had no reason to suppose he was "afflicted with gout." As to the other question, he should prove that the deceased had, in fact, proposed at a third office, and that his life had been accepted by the Medical referee, but that he had declined to go on with it. So that the answer was strictly true.

The widow and other witnesses were then called in support of the case thus opened.

The widow said her husband was of a spare make and active habits, and exceedingly temperate and healthy. She said he died of a rupture of a bloodvessel. When asked whether she had never known her husband to have the gout, she said she "could not swear it was the gout," and, when further pressed, admitted that his toe appeared inflamed, and he could not wear his ordinary shoes.

A brother of the deceased said that he had enjoyed excellent health, and had never been known to have any serious illness until his death. The Medical man himself was called, and said he had told the deceased his life was insurable, though not robust. This witness was pressed as to whether the deceased had not told him that he had had a "touch of gout," and said he could not recollect, and believed not. This witness was one of the Medical officers of the defendants' company. Another of their Medical officers, who had examined the deceased, was called, and said he had found and reported that his life was a good "average" life. And various friends of his were called to prove that they had never heard that he suffered from gout, and never knew him kept from business a day. The evidence being thus as it stood so contradictory—

The Lord Chief Justice recalled the first witness, the Medical man who had attended the deceased, and desired him to state the grounds on which he had stated that the deceased had died of "suppressed gout."

The witness stated several symptoms, but said there were "no active symptoms" of gout. The last illness was four days in duration. There was a previous illness in March. There was difficulty of breathing, spitting of blood, and extreme weakness, under which he sank. The symptoms were twice relieved by the presence of gout. In June there were similar symptoms—*i.e.*, all symptoms of the presence of suppressed gout, and such as had before been relieved by the presence of gout. The witness said he was not aware that the deceased had any important organic disease until the last illness.

One of the jury elicited that the company, when the deceased made his proposal, applied to the witness as his Medical attendant, but, as they had not sent a fee, he had declined to answer. (Laughter.)

Mr. Serjeant Shee, on behalf of the company, contended that both questions had been untruly answered. "Afflicted with gout" did not mean "disabled by gout," and suppressed gout was the most dangerous form of the disease. Beyond all doubt there had been gout, and gout in its favourite seat—the great toe.

The Lord Chief Justice left it to the jury—first, whether the answers of the assured were untrue; and next, whether they were false to his knowledge. First, had he been "afflicted with gout?" The question might be considered with some reasonable latitude; and it was not because a man had some passing symptoms which a far-seeing Medical man might ascribe to the presence of suppressed gout in the system, but was there gout in a sensible, appreciable form? And this, certainly, was stated to have been (before the proposal) "the slightest possible case" of gout, as the Medical man himself had said. As to the other question—whether the life had been proposed at any office and accepted or declined—it appeared that the life had been proposed at two offices, and accepted at one office and declined at the other. Had the assured answered truly, in simply saying that he had proposed and been accepted? The question, no doubt, was not in the most comprehensive form, but was it answered fully and fairly, and according to its obvious meaning and effect, by saying nothing of the proposal which had been declined? He thought not, but left it to the jury. He, however, thought further, that it was not strictly true that the life had been "accepted" in the sense in which the word was used—for it had not been accepted by any office on a proposal for assurance, but merely approved by the Medical man. It was for the jury to say whether either of the answers was untrue, and, if so, whether either was untrue to the knowledge of the assured.

The jury consulted some time, and then retired. On their return, they found, that the assured had not been afflicted with gout at the time of the proposal; that the answer to the other question was untrue, but not to the assurer's knowledge. Verdict for the plaintiff, subject to the question, whether the knowledge of the untruth was material.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a General Meeting of the Fellows, held on Saturday, December 13, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College:—

Charles Alfrod Atkins, Farnham Royal, Bucks; Jackson Graham Davidson, M.D., Coburg, Canada West; Daniel Devereux, Middlesex Hospital; Frederick Royston Fairbank, Rugby; William Beamish Lane, Carrigbue, near Bantry, Ireland; Robert Layeock, Bramley, near Leeds; John Robinson, Frodsham; William Charles Worley, 1, New North-road, Hoxton.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 11, 1862:—

William Montague Hall Welby, Newark, Notts; John Watkin, Treaman, Glamorganshire; Howell Charles Phillips, St. Mary's Hospital; Charles Tozer Savory, St. Bartholomew's Hospital; Thomas Mason Johnson, Manchester; Henry Robert Faweers, South Charlton, Northumberland; James Corrie, Carlisle; Philip Richard Tomlinson, St. George's Hospital; Adolphus Burnell Greatrex, Eccleshall, Staffordshire; James Herbert Brown, Leweshouse, Brighton; Richard Purnell, Wells, Somerset; Henry Willey, King's College.

The following gentlemen also on the same day passed their First Examination:—

George Lamb, University College; Edward Bryan, St. Bartholomew's Hospital; Henry Nelson Edwards, St. Bartholomew's Hospital; Thomas Haywood Smith, Sydenham College, Birmingham.

APPOINTMENTS.

BAKER.—Thomas Stephen Baker, M.R.C.S. Eng., L.S.A. Lond., has been re-elected Medical Officer and Public Vaccinator for District No. 2 of the Shepton Mallet Union, Somersetshire.

BIRD.—Frederick John Bird, M.D., Univ. St. And., F.R.C.P. Edin., M.R.C.P. Lond., has been elected Fellow of the Linnæan Society.

BROWNE.—Samuel Browne, L.K.Q.C.P. Irel., and L.M., M.R.C.S. Eng., has been elected Town Councillor for Belfast.

BUMPSTED.—Thomas Brooks Bumpsted, M.R.C.S. Eng., L.S.A. Lond., has succeeded the late Arthur Wellington Thurnall, M.R.C.S. Eng., L.S.A. Lond., as Surgeon to the Cambridge County Gaol.

CALLAGHAN.—Richard Callaghan, L.R.C.P. Edin., M.R.C.S. Eng., L.A.H. Dub., L.M. Rot. Lying-in Hosp. Dub., has been elected an additional Medical Officer for the Cork Dispensary District.

COLLIE.—Mr. Alexander Collie has been appointed Surgeon's Assistant in the Aberdeen Royal Infirmary and Lunatic Asylum.

COOPER.—William White Cooper, F.R.C.S. Eng. (exam.), has been appointed Honorary Consulting Ophthalmic Surgeon to St. Mary's Hospital, Paddington, on resigning the office of Ophthalmic Surgeon.

CURRIE.—Ronald Currie, M.D., M.C., has been appointed Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children, *vice* Donald Mac Iver, M.D. Univ. Edin., M.R.C.S. Eng., resigned.

CURTLER.—Henry Curtler, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Droitwich District and the Union House of the Droitwich Union, Worcestershire, *vice* William Robson Jaques, M.R.C.S. Eng., L.S.A. Lond., deceased.

DICKSON.—Walter Dickson, M.D., Surgeon R.N., November 25, 1848, has succeeded the late James Ormiston McWilliam, M.D. Univ. Edin., F.R.C.P. Lond., L.R.C.S. Edin., as Medical Inspector to the Board of Customs.

HARVEY.—Alexander Harvey, M.D. Univ. Edin., L.R.C.S. Edin., has been elected Physician to the Aberdeen Royal Infirmary and Lunatic Asylum, *vice* George Jaffray Nicol, M.D. Univ. King's Coll. Aberd., M.R.C.S. Eng., deceased.

HOUNSELL.—Dr. Strangways Hounsell, M.D., M.R.C.P., etc., has been appointed Physician to the Erith House Institution for Diseases of the Chest.

HOWATT.—Henry Robertson Howatt, M.D. Maisch Coll. Univ. Aberd., F.F.P.S. Glasg., has been elected Treasurer of the Glasgow Southern Medical Society.

KEMPSTER.—William Henry Kempster, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the St. Mary's District of the Wandsworth and Clapham Union, Surrey, *vice* William Connor, M.B. Trin. Coll. Dub., F.R.C.S. Irel., L.S.A. Lond., resigned.

LIDDARD.—Thomas Liddard, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children, *vice* Dr. T. L. Brittain, M.D. Univ. Edin., resigned.

MACNAB.—Robert Allan Macnab, M.D., Univ. Glasg., L.R.C.S. Edin., L.S.A. Lond., has been re-elected Medical Officer and Public Vaccinator for the Silsden District of the Skipton Union, Yorkshire.

MALLET.—Frederick Blakesley Mallett, M.D. Univ. Edin., L.S.A. Lond., has been appointed Assistant to the House-Surgeon of the Infirmary and Dispensary, Bolton-le-Moors, Lancashire

MCMILLAN.—Edward McMillan, L.R.C.S. Edin., has been elected Vice-President of the Glasgow Southern Medical Society.

PRITCHARD.—James Charles Pritchard, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer and Public Vaccinator for the St. George's District of the Wandsworth and Clapham Union, *vice* Dr. Connor, resigned.

ROBERTS.—Arthur Roberts, M.R.C.S., L.M., L.R.C.P., has been appointed Surgeon to the Kensington Dispensary.

STALLARD.—Dr. Stallard has been appointed Medical Officer to the United Law Clerks' Society, *vice* Thomas Bartlett, M.D. Erlangen, M.R.C.S. Eng., L.S.A. Lond., deceased.

STEWART.—James Stewart, M.D. Univ. Glasg., F.F.P.S. Glasg. (exam.), has been elected President of the Glasgow Southern Medical Society.

TEMPLE.—Alfred Robert Temple, M.R.C.S. Eng., L.S.A. Lond., has succeeded the late Arthur Wellington Thurnall, M.R.C.S. Eng., L.S.A. Lond., as Medical Officer of the Sixth District and the Workhouse of the Chesterton Union, Cambridgeshire.

THOMSON.—Hugh Willis Thomson, M.D. Qu. Univ. Irel., L.F.P.S. Glasg., has been elected Medical Officer and Public Vaccinator for the Belturbet Dispensary District of the Cavan Union, *vice* Edmond Nugent, L.K.Q.C.P. Irel., and L.M., L.R.C.S. Irel.

WILLIAMSON.—Mr. W. Williamson has been appointed Dental Surgeon to the Aberdeen Royal Infirmary and Lunatic Asylum.

DEATHS.

BLUETT.—December 7, at Haslar Hospital, of gastric fever, Walter John Bluett, M.R.C.S. Eng., Assistant-Surgeon R.N., August 4, 1855, Assistant-Surgeon *Victory*, 1862.

BROCK.—December 16, at Burleigh House, Old Brompton, Henry Gordon Brock, of the Red Rock, Tasmania, M.D. Univ. Edin., M.R.C.S. Eng., Surgeon R.N., March 9, 1821 (on the retired list).

COHAM.—December 16, at No. 3, Upton-villas, Kilburn, John Harding Coham, M.R.C.S. Eng., late House-Surgeon at the Middlesex Hospital.

KENYON.—December 11, James Kenyon, of Moss Field, Wavertree, near Liverpool, M.R.C.S. Eng., L.S.A. Lond., Medical Officer for the Wavertree District, West Derby Union, Lancashire, aged 49.

MARTIN.—December 6, Thomas Martin, of Little Hulton, Lancashire, L.S.A. Lond., aged 53.

PEGGE.—December 8, John Pegge, of Newton Heath, Manchester, F.R.C.S. Eng., L.S.A. Lond., Poor-law Medical Officer to the Newton District of the Prestwich Union, aged 50.

LONDON GAZETTE.

December 12.

12TH LANCASHIRE ARTILLERY VOLUNTEER CORPS.—Her Majesty has been graciously pleased to accept the resignation of the commission held by Assistant-Surgeon Thomas Dyke, in the above Corps.

5TH SURREY RIFLE VOLUNTEER CORPS.—Constantine Holman, Esq., to be Honorary Assistant-Surgeon, *vice* Sisson; dated December 8, 1862.

1ST ADMINISTRATIVE BRIGADE OF DEVONSHIRE ARTILLERY VOLUNTEERS.—John Steele Perkins to be Surgeon; dated November 18, 1862.

December 16.

46TH MIDDLESEX RIFLE VOLUNTEER CORPS.—Henry Bedwell, F.R.C.S.E. and L.R.C.P. Edin., to be Assistant-Surgeon, *vice* Lloyd, resigned; dated December 5, 1862.

12TH GLOUCESTERSHIRE RIFLE VOLUNTEER CORPS.—John Gimblett, Gent., to be Honorary Assistant-Surgeon, *vice* Leete, resigned; dated December 9, 1862.

1ST BRECKNOCKSHIRE RIFLE VOLUNTEER CORPS.—John Williams, Gent., to be Assistant-Surgeon; dated November 13, 1862.

Her Majesty has been graciously pleased to accept the resignation of the commission held by Honorary Assistant-Surgeon John Williams, in the above Corps.

MEDICAL APPOINTMENT.—The Government of Victoria, Australia, through the honourable member for Pomfret, has appointed Edward Paley, Esq., M.R.C.S., grandson of the famous Archdeacon, to the Medical Superintendency of the Yarra-Bend Asylum. The Asylum is situated about six miles from Melbourne. It has of late been the subject of considerable discussion in the colony, owing to some misunderstanding in respect to the management. The election of Mr. Paley is most satisfactory. He has been long connected with lunacy, having had a share in the superintendence of several of the large public Asylums of this country, and having been for seven years one of the principal Medical officers of Camberwell House Asylum. He carries with him to his new sphere of action the warmest wishes for success of all his English friends. The appointment at Yarra-Bend is worth £1300 a-year, and is for life.

AN UNQUALIFIED PRACTITIONER.—An inquiry has lately taken place at Bromley respecting the death of Mrs. Sarah Bowler, aged 40, who died in her confinement through alleged unskilfulness on the part of her Medical attendant, a non-qualified Practitioner. The deceased was delivered of a male child by Mr. Talbot, on Monday morning last, at ten o'clock. Immediately, great hæmorrhage occurred. Mr. Talbot sent four notes for Dr. Robinson, who was not to be found. Near one o'clock, Dr. Kennedy was seen passing by, and Mr. Talbot tapped at the window and called him in. Dr. Kennedy at once proceeded to remove the placenta, but deceased died half-an-hour afterwards. Dr. Kennedy said that the case was a most difficult one, but that, in his opinion, earlier interference was necessary. Mr. Talbot, who said that he had no diploma or certificate, stated that he had attended lectures for three or four years at Guy's Hospital, and that the delay was according to the dictum of the best authorities. The Coroner strongly condemned the practice of unqualified persons who had not even a certificate, as female accoucheurs were obliged to have, undertaking to attend in midwifery cases. He adjourned the case to procure the scientific evidence of an eminent obstetrician on the question raised by Mr. Talbot. The proceedings were accordingly adjourned.

THE NORMAN MEMORIAL WINDOW.—The citizens of Bath have done honour to themselves, as well as to the late distinguished Surgeon who was their fellow-townsman, by placing a window in the Abbey Church to his memory. The window is by Clayton and Bell. The following description of it appears in one of the local papers:—"The window is of the fifteenth century—or third pointed character common to the Abbey building. The new glass is treated in strict conformity with the system of design and execution found in ancient works of the period named. The principal subject of the window is our Lord healing the sick. The centre light is occupied by a figure of Christ restoring sight to a blind man; the side lights by figures of the lame, halt, lepers, and others weary and heavy laden in suffering, their countenances expressive of anxious importunity, hastening for relief to the Lord of mercy. The subjects in the upper tracery illustrate the texts—'Sick and ye visited me,' 'Hungry and ye fed me,' 'Thirsty and ye gave me drink,' 'Naked and ye clothed me:' an appropriate reference to one whose benevolent and untiring exertions amongst the sick and poor cause his memory to be affectionately cherished by all classes in our city. At the apex is the *Agnus Dei*, with angels bearing censors on each side, and at the base is the following inscription:—'In memory of Geo. Norman, F.R.C.S., born Sept. 2, 1782; died Jan. 17, 1861.' The character of the drawing and colouring is so very refined and delicate that it, perhaps, does not strike the eye at first so much as would have been the case had the tints been deeper; but the attention once attracted, it is impossible not to admire the elegance of the diaper tracery, relieving by its light and subdued pencilling the masterly groups which admirably express the happily selected subjects."

ETHNOLOGICAL SOCIETY.—At the fortnightly meeting of the above Society, on Tuesday last, John Crawfurd, Esq., President, in the chair, a paper was read by E. Preiss, Esq., on the "Aborigines of Australia," in which the author, a Bohemian by birth, who had had ample experience amongst the Aborigines of Queensland, testified to the capacity of the Australian natives for mental and moral improvement. The fidelity, honesty, and docility of these natives far transcended those qualities in the lower orders of Europeans. An interesting discussion followed, carried on by Messrs. Pratts, Lay, Hodgkin, Christy, Burke, Preiss, and the President. Dr. Shortt, of Chingleput, read a paper on the "Mulliallie Tribes inhabiting the Shervaray Hills, India." The manners and customs of these tribes in the Presidency of Madras were described in detail. The third paper was by Mr. C. Carter Blake, entitled, "Craniometrical Suggestions." The author, with a view to render more complete the systems of measurement adopted by Von Baer and Busk, proposed that arcs should be drawn from spots on the centrum of each cranial vertebra, to the periphery of its own neural arch. Thus, a line in the bisected skull, drawn from the centre of the basi-occipital bone to the apex of the supraoccipital, at the confluence of the sagittal and lambdoid sutures, would afford a rough approximation of the height of the neural arch of the occipital segment. Similar lines could be drawn defining the height of the parietal and frontal segments. The advantages of the adoption of this system, which virtually measured the height of the various chambers of the skull, would, he trusted, ensure its acceptance as supplementary to the invaluable series of cranial admeasurements recently propounded by Professor Busk. Mr. Mackie, Mr. Burke, Mr. Stevens, and Dr. Hodgkin, joined in the discussion. The meeting adjourned till the 13th proximo.

JUNIOR MEDICAL SOCIETY OF LONDON.—At a meeting of this Society, held at King's College on the 9th inst., H. Smith, Esq., Vice-President, in the chair, the following pathological specimens were exhibited:—"Encysted Knotty Tumour of Liver connected with a Syphilitic Origin," by Mr. Kempthorne, King's College; "Larynx and Trachea of a Child, showing Diphtheric Exudations," by Mr. Talfourd

Jones, University College. Mr. Yeo then proceeded to read a paper on "Ovariotomy." The author commenced by observing, that the subject was mature, and surrounded by so many well-authenticated facts, that it might fairly be discussed by this Society. In doing so, it was desirable to be influenced, not so much by the weight of authority, but rather by a calm review of the facts of the case, and the reasonable inferences to be deduced therefrom. The history of the operation was then traced from its origin in America, in 1809, and its inauspicious introduction into Great Britain by Mr. Lizars, in 1823, to its re-introduction by Dr. Clay, in 1842, and its subsequent steady progress. He then enumerated the various other means that had been suggested for dealing with ovarian tumours, and alluded to their generally unsatisfactory results; and, after sketching the usual course of a case of ovarian disease, if left to itself, or merely submitted to palliative treatment, he passed on to the consideration of the operation of ovariotomy itself, pointed out the cases in which it appeared justifiable, and thought it should be restricted to those cases where the disease manifested a progressively fatal tendency, or where the patient's life was rendered so miserable, that an operation was eagerly sought after. While alluding to the modes of performing the operation, and the proper after-treatment, the author mentioned the particulars of two recent cases—one in which Mr. Fergusson, and the other in which Mr. Bryant, had operated. He then stated the common objections to the operation, and thought they would be removed by the results of an extended experience, a careful selection of cases, and a careful observation, in operation, of all the details that the most experienced in these cases have suggested and found necessary; observing, in conclusion, that after, and in spite of much opposition, ovariotomy may now be regarded as about to take its place amongst the greatest achievements of the progressive Surgery of the nineteenth century. An interesting discussion ensued, in which Messrs. H. Smith, Hayward, Freeman, Jones, Deck, Pick, Shears, Wintle, and Clarke, took part. Mr. Yeo having replied, the meeting was adjourned.

Intermittent Fevers.—The Société d'Acclimatation has just received a letter from India, accompanied with a box containing a quantity of seeds of the *Cæsalpina Bonducella*, a plant which, according to Mr. Hayes, the writer of the letter, is much used there as a specific for intermittent fevers. The Bengalee for this plant is *Natha;* it is a small creeper, producing a nut, the kernel of which is exceedingly bitter, and possesses the quality of Jesuits' bark in an eminent degree, with this exception, that it is aperient rather than the contrary—a valuable property in a tropical climate where the bilious system is so generally affected. One of these seeds reduced to a paste, with three or four peppercorns, and taken three, four, or five times a-day, with the adjunction of Cherettah-tea (*Gentiana cherayita*), is generally found so infallible in its effects, that many European Physicians in India have adopted it; and will, probably, in a few years, abandon bark entirely. Cherettah is a kind of gentian which grows on the mountains skirting the course of the Ganges, and may be got at all the bazaars of Bengal; it is a stronger febrifuge than the *Gentiana lutea* of Europe. Native Physicians employ *Natha* also as a powerful tonic; they administer it in powder mixed with spices and castor-oil; externally, the seed is applied in cases of hydrocele. At Amboyna it is administered as a vermifuge; the roots are used as a tonic in dyspepsia. In Cochin-China the plant is considered deobstruent, and the oil extracted from the leaves is found useful in paralysis. In Egypt the women make necklaces and amulets with the seeds. The latter are often carried to great distances by the sea, as, for instance, to the coast of Scotland, where they are known as Molucca beans. It is singular that the remarkable virtues of this plant should have remained so long unnoticed, offering as it does a cheap and powerful substitute for Jesuits' bark, which, as every one knows, commands a high price. As this plant thrives in Egypt, Mr. Hayes thinks that it must prosper in Algeria, and even in the south of France.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

F. B. C.—Board and lodging are cheap. We know of a boarding-house for ladies, belonging to Miss Vautier, Ferneches's Landhaus, Stift Strasse, Wiesbaden, where two ladies, occupying one apartment, can be received and boarded for about 24 florins, or £2 per week.

Dublin.—If an Apothecary can forge one patent medicine, why not another? If a surreptitious James' Blistering Ointment for horses can be manufactured, why not a surreptitious James' Powder? Physicians and Surgeons are very much at the mercy of Druggists; and if factitious medicines, made with methylated spirit, come into vogue, the sooner we recommend our patients to set up domestic medicine chests the better. All great and respectable houses which charge full price should scorn such mean acts.

Dr. H. Wilson Reed has written a letter to the Rotherham and Kimberworth Local Board of Health, calling attention to the prevalence of typhoid fever, which he attributes to the bad sanitary condition of the town. The following passage from his letter would, perhaps, have been better omitted, as it is certainly liable to misconstruction:—

"As relates to the 'mortality' of the disease upon which information is requested by Dr. Shearman, it is remarkable that out of such a vast number of cases as I have treated there should not be a single death to record. Such is, however, the fact, and though in a large proportion of cases the termination was all but mortal, while some of the very severe cases have not even entirely recovered to this day, and after (in some few cases) an illness of three months' duration.

"I attribute this good fortune (for the disease has been sufficiently fatal in other hands) principally to a new system of treatment, which I adopted in almost every instance; though, possibly, the success may be, to some extent, due to the very extensive experience I have had in India and elsewhere, in the treatment of fevers. The plan which I follow I should be happy to communicate, but it would appear unnecessary, as it will be made public in a work on 'Fever,' upon which I am now, and have been for some time past, engaged.

"With regard to the above statement upon the mortality, it is necessary for me to say, that three cases under other Medical men in the town, and to whom I was called in the last extremity, died."

Hall v. Semple.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to ask you to receive and take charge of the enclosed sum of £5, as my subscription to the "Semple Fund." Necessarily much interested in the very important case of "Hall *v.* Semple," I wish to state my opinion, that you have performed your public duty nobly by means of the very able leading article upon the whole case in your last publication. I trust a fund may accrue sufficient both for the reimbursement of Dr. Semple in his present costs, and, also, for the further trial of the legal question.

I have taken the liberty of making this order payable to John Churchill.

I am, &c.

Barming-heath, Maidstone, December 16. James E. Huxley.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your remarks, in the *Medical Times and Gazette* of December 13, on the trial of "Hall *v.* Semple," induce me to hope that a fund will be established to bring an action in a Court of Error.

If such be the case, I shall beg to subscribe two guineas; or, if a guinea subscription were made, one guinea. I am, &c.

49, Finsbury-square, E.C., December 16. Hermann Weber.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The view you have taken, in your leader, of the case of Hall *v.* Semple does you infinite honour, and I hope the Profession will place a true value upon the promptitude and penetration with which you have treated the case.

I regret to see that in a contemporary there is a most grievous, and, to the Profession, a most injurious admission, that "it is impossible not to admit that the verdict of the jury was just." In truth, a more oppressive verdict was never given, even on their own findings, taken as a whole. Why were the pleas altered, unless as a sop to the jury, that defendant should not escape? This part of the proceedings leaves a most painful impression upon the mind, and requires, urgently, some explanation.

Now, as a Profession, we shall ask ourselves, unless this most oppressive verdict be promptly reversed, who amongst us will incur the responsibility of certifying, for the handsome legal fee of 10s. 6d., any one of those many cunning and difficult cases of insanity which often result in murders or wholesale homicides, as where whole families lose their lives through the want of an early recognition and control of insane persons? Let society look to it, and take the responsibility. If they think it desirable, the Profession will not say nay. The Profession will say nay to interference in such cases in the face of such vengeful or oppressive verdicts. What is all this slipshod nonsense of the press about the personal freedom of the subject? It is simply contemptible. Did ever a case of *mala fides* occur? Is there a case of even probable Professional conspiracy on record? I never heard of one. With all the precautions of the Lunacy Act—with the Commissioners of Lunacy, who are instantly on the alert to detect even errors of judgment, the Medical Practitioner is powerless except for good. No doubt the Profession will almost universally respond to your valuable suggestion, and make Dr. Semple's case their own to that extent. In this hope I enclose a small subscription, and will repeat it, if found necessary. I am, &c. William Hinds, M.D.

The Parade, Birmingham, December 16.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—When a discontented and ungrateful patient may bring an action against his Medical attendant because he has a stiff ankle joint after a very severe fracture, or because his wife has not been able to get up and help him in the business so soon after a severe labour as he fancies she might have done, or because he has not allowed him to cut his throat, or jump out of the window in a severe attack of delirium tremens, it is plain that a diploma or licence is not deemed a sufficient guarantee of Professional knowledge, but that the Physician or Surgeon may, in any case, be at the mercy of the prejudices and conceits of twelve common jurymen. Under these circumstances it is plainly becoming a very perilous thing to practise Medicine.

In the recent case of Hall *v.* Semple, it is impossible to doubt that Dr. Semple acted with an extreme conscientiousness. In fact, he has been so scrupulous, that the certificate, as it stands, is not a valid one, and would certainly have been rejected by the Commissioners in Lunacy. With such conscientiousness is it written, that it does not legally suffice to show insanity, and under it the proprietor of the Asylum ought not to have received the patient. It is well known to those who have special expe-

rience in insanity, and should, therefore, be known to the proprietor of the Asylum into which Hall was received, that under the head of "Facts Observed by Myself," some fact or facts must be stated which shall be to those who read and examine the certificate sufficient evidence of the patient's insanity. Now, in Dr. Semple's certificate there is no such fact. What are the words? "He had a wild and staring look, with restless eyes, and nervous, agitated manner. He represented to me that his wife was ruining himself and business, and he intimated that she was improperly associating with other men; he is evidently labouring under delusions, and he acts upon those delusions." Now, "wild and staring look, with restless eyes," etc., are not facts evidencing insanity, and are never accepted as such by the Commissioners, unless associated with other more decisive facts. The patient representing that "his wife was ruining himself and business," and "improperly associating with other men," might be true; and as it is not said in the certificate that it was not true, the statement is not a fact evidencing insanity. When Dr. Semple states that "he is evidently labouring under delusions, and acts upon those delusions," he simply says that which is worth nothing, for he gives a general opinion, and does not specify a fact. The Commissioners would have returned such a certificate, when it was transmitted to them, with the observation, that it was "too vague," and would have enclosed at the same time printed instructions, in which would have been fiercely underlined, with red ink, a statement to the effect, that it is not sufficient to give an opinion as to the insanity, but necessary to specify some fact or facts which shall be evidence thereof.

Is it not, then, extremely hard upon Dr. Semple, that he should have been so carefully accurate that he did not show the man's insanity—that his certificate was not, in fact, legally valid for putting the man into an Asylum—and that, notwithstanding, he should have to pay damages because the man was put into an Asylum? What, then, should be done to the Asylum keeper who received a patient under two Medical certificates, both of which were invalid?—for Mr. Guy's certificate was of no value on account of the date. A man does not keep a Lunatic Asylum and remain ignorant as to whether certificates are correct; and I fear that the Commissioners in Luuacy will have something to say to the Asylum proprietor who received Hall.

It seems not impossible that Dr. Semple might obtain new ground of defence in this; that he did, conscientiously, and not negligently, but very carefully, write a certificate describing the facts of Hall's case as he had ascertained them; that this certificate, by reason of no fact or facts indicating insanity, being stated amongst the "facts observed by myself," was not valid in law, and that he, consequently, could not possibly be liable for the man's being placed in an Asylum.

It admits of no doubt, however, that the public will, in the end, be the sufferer by the verdict in this case. There are several Medical men already who refuse to sign certificates of insanity; and, after such a trial, it is probable that there will be many more who will wisely decline so great a responsibility. Much misery and mischief are sometimes caused at present in a family by the dislike of the Medical attendant to sign a certificate of lunacy; and, after such a trial, the misery and mischief are not likely to be less. The newspapers may declaim furiously and unwisely, but we can patiently wait till the injustice is surely revenged by the inexorable logic of events.

I would add one question,—Is it not desirable that Psychological Medicine should be taught somewbere in England? I am, &c.

December 15. M.D.

Dropsy of the Pericardium after Scarlatina.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If you think this case worth being inserted in the *Medical Times and Gazette*, in connexion with the cases recently reported, I shall be glad if you will do so.

At 11 p.m., on October 24, I was requested to see a man who was said to be dying. I found a young, strongly built man, sitting up in a chair, gasping frightfully for breath; face pale, puffed, and very anxious; pulseless; action of heart feeble and tumultuous. The following is the history:—

John B., aged 19, ship-smith, took scarlet fever five weeks since, and was attended by the parish Doctor; the rash came freely out. He was very ill for three days, but in a week so much better that he came down stairs, and, in three weeks from the commencement of fever, went out. He then caught cold and a cough; his feet began to swell, and his face became puffed; urine never examined. Had medicine that relieved his cough. At 5.30, October 24, he felt giddy and faint, and said he was very ill. He rallied a little, but became suddenly much worse just before I saw him. He died next morning at 6; and, as the Medical attendant refused a certificate, a limited examination of the body was allowed to enable me to give one.

Autopsy.—Pericardium transparent, but greatly distended with serum; it looked as if a few ounces more fluid would, if possible, burst it.

Remarks.—During the recent epidemic of scarlet fever, I have carefully sifted all the cases of dropsy that have come under my notice, both at the Infirmary for Children and in private. The result is, that in every instance the dropsy was brought on by cold, the fever alone not being sufficient to cause it; and in every case in which the patient was prematurely exposed to cold, the dropsy followed—I was going to add—as a necessary consequence. I am, &c.

D. M. Williams, L.K.Q.C.P.I,
Honorary Assistant-Surgeon to the Infirmary for Children.

3, Norton-street, Liverpool, December 10.

An Unqualified Practitioner.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If you will favour me with your opinion, or indicate, through the medium of your valuable journal, the best course to be adopted in the following case, I will feel much obliged:—

In June last, I made arrangements with Mr. Lewellyn to enter into partnership, previous to which time he had, as assistant, Mr. J. R. Jones, a person possessing no qualification whatever. Three months before the commencement of partnership, or in March last, Mr. Jones had notice that his services would not be required after June; so that he had three months to look out for a situation. He, nevertheless, stays at Machen, in our district, and does all in his power to annoy us by interfering with my cases in the most impertinent manner.

Since June, a branch railway has been commenced, on which 250 men are employed, and each man pays 8d. a month to the Doctor, contrary to the wishes of the men; but the contractor has thought proper to employ Mr. Jones, and so he manages to get a livelihood in that way, *i. e.*, by what the contractor thinks proper to give him. (We, at the same time, are anuoyed by being obliged to refuse to attend to the numerous applications made to us by the railway men.) But Mr. Jones is not even satisfied with being allowed to go on attending the men, but must go a little further, and represent himself as fully qualified. We have, therefore, thought it time to interfere, and so write to know what you think of the affair. The enclosed is a copy of certificate given by Jones. I have also written to the Registrar of Deaths for a certificate given by him in a case of death. Is the Registrar bound to supply me with the same, or not? I will be glad to know. If you will kindly let us know what you think of the enclosed in your next issue, I will be thankful. I am, &c.

Caerphilly, S. Wales, December 15. C. C. Richards, M.D., etc.

"Rymney Railway, December 13, 1862.

"This is to certify that Stephen Rident has been unable to work from the date of last certificate to the — day of November, 1862.

"John R. Jones, Surgeon."

[By the Medical Act, no unregistered Practitioner can legally hold the appointment of Medical Officer to any friendly or other society for affording mutual relief in sickness, infirmity, or old age. A death certificate given by such a person is invalid. The taking the title of Surgeon is an offence against the law, and, on conviction, may be followed by a fine not exceeding £20.—Ed.]

COMMUNICATIONS have been received from—

Dr. C. Couter; Dr. E. McMillan; Mr. J. R. Lane; Dr. Castaneda; Dr. Ramsbotham; Mr. A. Roberts; Dr. D. M. Williams; Dr. Althaus; Mater; Dr. Leared; Dr. Crispe; Dr. Strangways Hounsell; Mr. W. Somerville; Dr. J. E. Huxley; Dr. William Hinds; M. D.; Dr. Moriarty; Messrs. Letts and Co.; Mr. Wilde; Mr. Hatherley.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 13, 1862.

BIRTHS.

Births of Boys, 953; Girls, 933; Total, 1886.
Average of 10 corresponding weeks, 1852-61, 1730·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	700	708	1408
Average of the ten years 1852-61	654·3	612·6	1266·9
Average corrected to increased population..	..	..	1393
Deaths of people above 90	..	..	10

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	2	6	11	4	1	4	..
North ..	618,210	5	19	20	3	11	18	1
Central ..	378,058	4	9	8	1	7	13	..
East	571,158	9	17	13	1	15	16	6
South ..	773,175	2	23	32	2	17	10	4
Total.. ..	2,803,989	22	74	84	11	51	62	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·870 in.
Mean temperature	44·1
Highest point of thermometer	57·1
Lowest point of thermometer	33·7
Mean dew-point temperature	40·5
General direction of wind	S.W. & W.
Whole amount of rain in the week	0·81 in.

APPOINTMENTS FOR THE WEEK.

December 20. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m.; Charing-cross, 1 p.m.

Metropolitan Association of Medical Officers of Health, 7½ p.m. Meeting.

22. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

23. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

24. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

25. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

26. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON DISEASES OF THE EYE.

DELIVERED AT

The Middlesex Hospital,

BY

SOELBERG WELLS, M.R.C.S. Eng., M.D. Edin.

Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, the Hospital.

STRABISMUS.

LECTURE II.—(*Concluded.*)

GENTLEMEN,—I have already mentioned to you, that, in the great majority of cases of concomitant squint, binocular vision is either considerably impaired, or even altogether absent; and I have also explained to you the method of ascertaining the presence of binocular vision. The reason why it is so frequently absent in concomitant squint is, that, on account of the annoyance and confusion caused by the diplopia, the patient soon acquires the habit of mentally suppressing the retinal image of the squinting eye. Diplopia is almost always present in recent cases of paralysis of any of the muscles of the eyeball, or of concomitant squint. Now, if we watch the progress of the latter cases, we find that, although the diplopia remains present in a certain number, in the majority the distinctness of the retinal image of the squinting eye (pseudo image) gradually fades, the diplopia becoming less annoying and observable, and, finally, disappearing altogether; for the retinal image of the squinting eye is mentally suppressed. Sometimes, binocular vision is only destroyed in certain portions of the retina, so that diplopia may be easily produced by prismatic glasses; in other cases, however, it is completely absent, and we are unable to produce diplopia, even with the strongest prisms turned in various directions. It is an interesting fact, that, although the squinting eye may be completely excluded from binocular vision, it yet contributes perceptibly to the size of the field of vision, the latter being greater in extent, towards the side of the squinting eye, when both eyes are open, than when the affected one is closed.

Von Graefe has found that binocular vision is absent in about 90 per cent. of cases of concomitant squint; that we can produce diplopia by artificial means, prisms, etc., in about 25 per cent.; and that, after the operation, binocular vision is found to exist in about 50 per cent. As the existence of binocular vision very materially influences our prognosis of the cure of the squint by an operation, we should always accurately examine the patient as to its presence. If it exists, and if he is very susceptible of diplopia, or can even unite the double images when they are closely approximated (by prisms), we may give the best prognosis—we may promise a *perfect* cure. Different is it, however, when binocular vision is absent, for we can then only promise an approximative cure. We may, however, succeed, by one or more careful operations, in so balancing the muscular powers of the eyes, as to reduce the squint to a minimum—to so slight a degree, that it will be quite imperceptible, except on very close examination.

I have already stated to you that, if we place a prism before a healthy eye (both eyes being open and fixed upon an object a few feet distant), diplopia will be produced; but the double images will be almost at once united again (if the prism be not too strong) by the voluntary action of one of the recti muscles, which correction, however, gives rise to a slight squint. If the base of the prism be turned to the temple, crossed diplopia will be produced, and the internal rectus muscle will exert itself to fuse the double images into one, and a convergent squint will, consequently, arise. The reverse will occur if the prism be turned with its base to the nose—homonymous diplopia will be produced, the external rectus muscle will exert itself to overcome the diplopia, and there will be a divergent squint. Now, the same thing happens after a squint operation; for, if the optic axis of the squinting eye now deviates but very slightly from the object, the double images will be very close together, and prove the more annoying to the patient, who will, consequently, endeavour (unconsciously almost) to unite them by a voluntary exertion of one of the muscles, and will succeed in permanently doing so, if the double images are very closely approximated, so that the exertion is but slight. If the double images can be permanently united, the squint is, of course, *perfectly* cured.

The impairment or extinction of binocular vision is generally accompanied or succeeded by more or less considerable loss of sight. The voluntary suppression of the pseudo image appears to exert a peculiarly injurious influence upon the vision of the squinting eye, for we not unfrequently meet with cases, in which, within a year after the appearance of the squint, it is almost completely destroyed. In many cases the exclusion of the squinting eye from binocular vision appears to be the only cause of the amblyopia, as we often fail to detect the presence of any opacities in the refracting media, or any affections of the inner tunics of the eye.

It is interesting to compare the effect upon the sight produced by this *active* negation of the pseudo image, with that which occurs from the *passive* exclusion of the affected eye in cases of cataract. In the former, the sight generally soon becomes considerably impaired: in the latter, the eye may be for many years passively excluded from binocular vision by a cataract; and yet, when this is removed, its sight may again become so perfect as to enable the patient to read (with the proper convex glass, of course) the very finest print.

The fact, that binocular vision generally becomes impaired, or even lost, after a squint has existed for a short time, and that this suppression of the pseudo image is mostly accompanied by considerable amblyopia, should urge us to operate as early as possible. I know that the question is often debated whether children should be operated upon for squint, or whether we should wait until they have grown up. My advice to you is to operate as early as possible, whilst binocular vision still exists, and before the sight of the eye is impaired. You have seen that diplopia is essentially necessary for a perfect cure; why wait, then, until this is lost, and the sight of the eye, perhaps, permanently injured? Besides these evil consequences of delay, we have also to think of the change which the contracted muscle undergoes; it becomes fibrous, and its antagonist is soon weakened, so that the mobility of the eye in the direction of the latter becomes more or less curtailed. We shall see hereafter that such cases of fibrous degeneration of the muscle often prove very troublesome, and require repeated operations.

If, for some reason, the operation must be postponed, we must endeavour to change the monolateral into an alternating squint. By the alternate use of each eye, the sight of both will be preserved, as also binocular vision.

The one eye is to be periodically excluded by a bandage, etc., and the squinting eye temporarily used, so as to exercise its vision. In this way we may often succeed in producing alternating squint, and preserving the sight of both eyes.

I have met with cases of alternating squint in which the sight of both eyes was perfect, and yet no binocular vision existed, nor could diplopia be produced by prismatic glasses either before or after the operation. I have seen the same thing in monolateral squint. These patients have most likely never enjoyed binocular vision; the sight of each eye was perfect, but the two had never been used together; hence, the squint produced no diplopia, and there was, consequently, no call for the suppression of one retinal image, which is accompanied so frequently by impairment of vision. I admit that such cases are rare, but I have met with several within the last few months.

The amblyopia which is produced by the suppression of one retinal image, may be frequently greatly improved by the operation for squint. Von Graefe has found that this improvement varies with the degree of the amblyopia, and he has divided these cases into three groups:—

1. Cases in which the impairment of vision is not considerable, the patients being able to read moderate-sized or large print (Nos. 4 to 14 of Jäger) tolerably well, their sight being improved by convex glasses. The field of vision and excentric vision normal. The fixation firm; the yellow spot (optic axis) being fixed upon the object. In such we may expect considerable improvement of vision from the operation.

2. The patient can only read Nos. 14 to 20 of Jäger, or count fingers up to four or six feet. Convex glasses improve slightly. The fixation is uncertain and wavering, not absolutely central, but there is no deviation of the optic axis in one certain direction, and at a certain angle. Such cases are only slightly improved by an operation.

3. Vision greatly impaired; the patient can only decipher letters of No. 20, and count fingers up to two or four feet. The optic axis deviates in a certain direction (inwards), and at a certain angle from the object; convex glasses do not improve at all. In such, the operation does not, generally, prove of any benefit.

We may often improve the sight of the squinting eye considerably by exercising it frequently with convex glasses; this is particularly the case after the operation.

Let us now pass on to the treatment of strabismus. The nature of concomitant squint is totally different from the paralytic. In the latter, the innervation of one or more of the muscles of the eye-ball is impaired; concomitant squint is, however, due to a change—an increased degree of tension, in the muscle, in the direction of which the squint occurs; but its innervation is normal, as is at once proved by the perfect mobility of the eye-ball in this direction, and by the fact, that the secondary deviation exactly equals the primary, and does not exceed it, as in cases of paralysis. Practically, we may regard the affected muscle as shortened. We often meet with mixed forms of squint, for paralytic and spasmodic affections of the muscles of the eye may give rise to concomitant squint, leaving behind them but very slight traces of the original affection. But, just as paralysis may be the cause of concomitant squint, so may the latter, if it be excessive in degree and of long standing, produce changes in the opponent muscle. Let us, for instance, suppose that there is an excessive convergent squint of the one eye: if the latter is not frequently exercised, and made to fix its optic axis upon the object, either by an artificial or natural alternation, the non-use of the external rectus will gradually induce atrophy of this muscle. The internal rectus will, at the same time, become fibrous, and the mobility of the eye outwards will be considerably curtailed. These changes in the structure of the muscles are best prevented by the frequent, separate exercising of the squinting eye.

Concomitant squint can be cured only by an operation: the effect of the latter may be perfected by after treatment with prisms or (so-called) orthopædic exercises, but with these alone we shall never succeed in curing squint. They are, however, occasionally of very great use in strengthening weak muscles, *e.g.*, after paralysis, or in slight cases of insufficiency of the internal recti muscles.

The object of the operation is to weaken the muscle in whose direction the squint occurs, so that its influence upon the movements and position of the eyeball may be diminished. This is effected by carefully dividing the tendon as close as possible to its insertion; the muscle will then recede slightly, and acquire a new insertion somewhat further back. This recession is, however, accompanied by a certain diminution of power, for the further back the insertion, the less power can the muscle exercise upon the movements of the eyeball. We wish to weaken the muscle, but, at the same time, to preserve as much of the lateral mobility as possible. We must, therefore, carefully regulate and adapt the amount and nature of the operation to the requirements of each individual case, and we shall see hereafter how its effect may always be estimated to a nicety. The success depends less upon manual dexterity than upon a thorough knowledge of the theoretical part of the subject.

After the tenotomy and retrocession of the muscle, the eye-ball will fall over passively to the side of the opponent, to about the same extent as the muscle receded on the sclerotic. The diminution in the lateral mobility towards the side of the operated muscle will, however, exceed the extent of this retrocession. If, for instance, the muscle has receded two lines, the loss of mobility will be from two to three lines, and this would impair the results of the operation considerably (particularly with regard to the accommodative movements), if it was not for the fact, that the mobility of the squinting eye is pathologically increased towards the side of the shortened muscle. Hence, the mobility will be in reality but slightly diminished by the operation, or it may even remain equal to that of the other eye.

The question, whether one or both eyes are to be operated upon, does not hinge upon the fact, whether both eyes squint or not, but depends solely upon the extent of the squint. It is quite erroneous to confine the operation to one eye, merely because the squint is monolateral, and to perform the double operation only in cases of alternating or double strabismus.

If the squint measures from two to two and a-half lines, we may generally correct it by a single operation; by incising the subconjunctival tissue somewhat freely, and, by using a larger hook, we may even obtain an effect of two and a-half to three lines. This is particularly the case in children. If the deviation exceeds two and a-half to three lines we must always divide the operation between the two eyes.

Let us suppose, for instance, that a patient is affected with a convergent squint of the right eye of about four and a-half lines. To correct this by one operation we should have to divide the tendon of the internal rectus muscle of this eye to such an extent that the muscle might recede four and a-half lines. This would be, however, accompanied by a diminution in the mobility inwards of about five and a-half lines; and even supposing that the pathological increase in the mobility in this direction had been previously about one line, we should still have a deficiency of about four and a-half lines after the operation. The associated movements towards the left side of the patient will, therefore, be greatly impeded; and this want of mobility inwards will make itself particularly felt during the accommodative movements, for it will prevent the proper convergence of the optic axis during reading, etc., for the optic axis of the right eye will deviate slightly outwards from the object, and this divergent squint will soon increase in extent and become permanent. In order to obviate this we must divide the operation between the two eyes. Let us suppose that the tenotomy of the right external rectus has corrected two and a-half lines of the deviation, there will, consequently, still remain an inward squint of this eye of about two lines. On covering the left eye with one hand, and telling the patient to look at the object with the right, the latter will have to make an outward movement of two lines, and this will be accompanied by an inward, *associated* movement of the left eye of the same extent. We must now calculate the extent of the operation which will be necessary to correct the secondary squint of the left eye, just as if the latter was primarily affected with a convergent squint of two lines. Let us now assume that the left internal rectus has been divided, and that we have obtained an effect of two lines; the eye will, consequently, fall outwards to this extent, a divergent squint of two lines being in fact produced; and it will, therefore, require an extra exertion of the internal rectus to bring the optic axis of the left eye to bear again upon the object. Now, this inward movement of two lines will be accompanied by an associated outward movement of the right eye to the same extent; hence, the convergent squint which had remained after the first operation will be completely corrected. If binocular vision exists, the double images will now be so very closely approximated, that a very slight muscular effort will be able to unite them permanently, and the cure of the squint will be perfect.

The operation is always to be performed in such a manner that the greater amount of correction is apportioned to the squinting eye, as the mobility is pathologically increased in the direction of the shortened muscle.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

CONDUCTED BY

JONATHAN HUTCHINSON,

Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital,

AND BY

J. HUGHLINGS JACKSON, M.D.

Physician to the Metropolitan Free Hospital.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

LOSS OF SPEECH FOR SEVERAL YEARS—RECOVERY.

(Under the care of Dr. RAMSKILL.)

A GIRL, aged 22, from the country, was admitted as in-patient, under the care of Dr. Ramskill, September 12, 1862. The following account is given nearly exactly as written by the patient's mother:—

"It came on with a bad cold and cough. Every thing was tried that could be thought of to get rid of the cough, but it increased to a wonderful curious noise, which kept upon her

almost continually, so that there was but a very short time between for conversation. Before it came on again, she always complained of her chest, but could not describe how it felt. Her speech gradually left her, but about an hour in the day this noise would leave her, so that she could talk; from this time it got to half an hour, quarter of an hour, five minutes, and three minutes. After this the noise never left her except when sleeping, but as soon as she awoke it used to come on immediately, and so it continued for some time; a very low noise at times, then louder. After a time the noise was changed to very loud, but it used to cease several times in the course of the day. So it continued for some time. Then it used to come on only once in the day, and that was of a morning. At first waking, she used to shriek for about five or ten minutes; it could not be compared to anything else but a shrieking fit. This continued for three or four years every morning, and at last left her entirely. Not less than five different noises I have heard during her affliction. It is about five years since this noise left her entirely. Since she began to be regular, which was about the age of seventeen, she has gradually gained her speech so far as to be able to talk a little, but for the last three years there seemed not to have been any improvement. She cannot mention the name of any person or thing, if it be ever so easy, which is very remarkable, and cannot try to say a word, as children do when learning to talk, nor can she enter into conversation at all, unless persons ask her questions, and then she can answer in very simple words, but never can say a long word. She had her natural speech up to eight years of age, and was a very active child. I have never heard her read out since that time. She has had Medical attendance several times. At one time it was thought that the spine of her back was affected: she lay on boards for several weeks, but was not benefited by it. It was then thought that the windpipe was affected, but nothing for this did her any good. She was electrified, but it did not produce any effect. She is very nervous at times, and very low-spirited; and, if she walks fast, short of breath. She has not been regular for six months. She had never passed any worms."

When first seen by Dr. Ramskill, she could not say the name of any person or thing. She could utter one or two words. She was, however, fairly intelligent, but nervous, and her memory was bad. When she wanted anything, she made signs for it, pointing, and saying, "I want that." The first new word she was taught (by the nurse, who took great pains with her) was "good night." Whilst being taught, the nurse said her heart would beat violently, and she seemed hysterical, and, for this reason, she was generally taught at night, after the other patients had gone to bed. The improvement was, on the whole, gradual, except one rather sudden step on November 26.

December 20.—She has now been well for several weeks, and can speak well. On one occasion, however, after having been annoyed, she did not speak for five days. During the first week or two of her stay in the Hospital, she had attacks of coughing,—a hard, barking, clattering cough. It was worse when she was excited and when her speech was worse. The medicines taken were small, repeated doses of blue pill and strychnine (gr. $\frac{1}{25}$).

This case, Dr. Ramskill said, might lately have been complicated with hysteria, but it could not have been altogether due to it, as it began when the patient was a child only eight years of age. It was, he thought, rather of reflex origin.

THE ROYAL LONDON OPHTHALMIC HOSPITAL.

SYMPATHETIC IRRITATION OF THE LEFT EYE, RESULTING FROM ADVANCED DISEASE OF THE RIGHT—EXTIRPATION OF THE LATTER, WITH AN EXCELLENT RESULT.

[Communicated by Mr. W. Spencer Watson.]

Charles J., a stout-built and apparently healthy young man, of 19 years of age, a bird stuffer by trade, was admitted under my care, as clinical assistant to Mr. Wordsworth, on November 29, 1862. He was then complaining of great pain, and of irritation of his left eye. He said that two years ago he had run a packing-needle into his right eye, and that the vision of that eye had been completely lost at the time of the accident. It was shrunk, quadrated from the action of the recti muscles, and soft to the touch. The pupil was closed by an opaque lens, which appeared to be drawn backwards, so as to deepen the anterior chamber considerably; and the margin of the pupil was adherent to the anterior capsule in the greater part of its extent. He had no perception of light with this eye. The cornea had a linear cicatrix running across its centre horizontally; it was quite transparent elsewhere.

About seven weeks ago, pain in the left eye and dimness of sight first attracted his attention. He found that he soon tired on attempting to read for any length of time. These symptoms had increased up to the date of admission (November 29), and he then had constant pain in the ball of the eye, with great intolerance of light and lachrymation. There was, however, no inflammatory redness, or other indication of local inflammation, nor did the ophthalmoscope reveal any deep-seated mischief. It was at once apparent that the left eye of this patient was suffering from sympathetic irritation reflected from the other; consequently, that the sooner this injured and wasted eyeball was removed, the better the chance of saving the sight of the sound eye.

Having had the patient put under the influence of chloroform, I proceeded, on December 4, by Mr. Wordsworth's permission, to remove the shrunken globe by the method usually adopted at this Hospital. No bad symptoms followed, and he complained of little pain after the operation.

December 7.—There was considerable improvement in the sight of the left eye, and the pain has almost entirely left him. There is some ecchymosis remaining in the eyelids on the side from which the globe was removed.

10th.—His sight is now perfect, and he has no pain or irritability whatever. The stump is granulating healthily, leaving only a small central aperture of the size of a small pea. It promises to make a good firm cushion for the adaptation of an artificial eye. On making a section of the eye removed I found the retina entirely detached from the choroid, and collected into a funnel-shaped cord, the narrow extremity of which was attached to the entrance of the optic nerve, and the broad part to the posterior capsule of the lens and the ciliary processes. The space between this and the choroid was occupied by a brownish, limpid fluid, with abundance of cholesterine crystals floating in it. The lens was shrunken to less than half its normal size, and was globular in form and opaque. It was lying in a cup-like cavity, formed by the posterior capsule, which was thickened by lymph, and glued to the remains of the vitreous and retina. This case is, I consider, a striking instance of the great advantage of removing a diseased and shrunken eyeball, as soon as any signs of sympathetic irritation show themselves in the sound eye. The appearances presented by the diseased eye are characteristic of the changes that take place after severe injuries leading to destructive inflammation in the deeper structures of the globe, and, when present, are conclusive evidence that no other proceeding, short of extirpation, would have been of any avail. Had there been the least perception of light in this eye, I should have been inclined, *cæteris paribus*, to have operated for the removal of the lens by Schuft's method, previously to resorting to the extreme measure here adopted; but the soft and shrunken state of the globe, coupled with the total absence of any indications of retinal sensation, quite forbade any hope of success from such an operation.

METROPOLITAN FREE HOSPITAL.

CASE OF EXFOLIATION OF ONE OF THE PRE-MAXILLARY BONES AFTER MEASLES.

(Under the care of Dr. HUGHLINGS JACKSON.)

William H., aged 3 years and 4 months, was admitted an out-patient at the Metropolitan Free Hospital, on September 24, for, what his mother called, "a gathering in his mouth." In March, he had had, she said, measles. He recovered, and began to complain of pain in his mouth in August. When Dr. Jackson saw him the boy had much pain, and under the upper lip was a discharge of fetid pus. This was found to be due to disease of the jaw. A loose piece of bone was extracted, which turned out to be the right pre-maxillary bone, and contained the two incisor teeth. He did not attend again.

Dr. Salter relates cases of exfoliation of the pre-maxillary bones after various eruptive fevers in the Pathological Society's *Transactions*, vol. xi. p. 211. He concludes that "the pheno-

mena commence by damage done to certain of the teeth and forming teeth during the eruptive stage of the fever; and that the bone necrosis and casting off of the teeth, temporary and permanent, and their containing alveoli and loculi, is secondary and contingent upon such damage; that the *materies morbi* affects the teeth by virtue of their being members of the dermal or integumentary system—the system upon which the poisons of the eruptive fevers spend their force; and that, blighted and irretrievably destroyed, they light up in the surrounding periosteum an inflammation, which, while it is destructive, is curative: while it destroys the bone around, it effects thereby (as by that means alone it could effect) the casting off of the teeth as dead and effete organs."

There is an interest attaching to this case, in that this bone only exists separate during early life. Holden, in his work on the Bones, writes—"In animals this remains a permanently distinct bone, called the 'pre-maxillary.' Indeed, in most skulls, if not very old, one can trace the remains of the pre-maxillary suture." "This is interesting also surgically. In cases of double hare-lip, when the fissure is not confined to the skin, the pre-maxillary bones on each side fail to unite with the rest of the upper jaw, and often project in a hideous manner through the fissure of the lip. When removed by operation, this portion of the jaw is always found to contain the capsules of the four incisor teeth."

According to Professor Owen, these bones form the hæmal spine of the nasal vertebra. The teeth contained in these bones, the upper incisors, but chiefly, however, the central ones, are those malformed in certain cases of congenital syphilis, as pointed out by Mr. Hutchinson. Mr. Hutchinson thinks that this malformation is due to damage done to the tooth capsules by stomatitis in infancy. Mr. Paget thinks that the malformation illustrates the correlation of disease, and that it is analogous to the correlations of growth mentioned by Darwin. The nose also suffers a good deal in congenital syphilis. There is generally snuffles, and often actual disease of the bones. Those who are interested in tracing physiological tracts in disease may think of the malformation of the teeth, and the disease of the nose, as disease of various bones, but still of parts in relation with the same vertebral segment.

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Medical Times and Gazette.

SATURDAY, DECEMBER 27.

1862.

Courteous Reader! we wish you a happy Christmas. This, our last Number for 1862, will, we hope, find you engaged in those homely family enjoyments which befit the Englishman's Christmas. *Certes*, if any man ought to enjoy his own family circle, it is the Medical man. Whilst he looks on the dear faces around him, his thoughts may wander to the Professional triumphs of the year—how this mother of many children was snatched from the jaws of death, because he waited, weary, and famished himself, perchance, to give the stimulants, and see that the unhandy old nurse made the beef-tea as it ought to be; how that child was restored to health, because he persisted in hoping against hope, and sat up to nurse and feed it through that critical night of the fever; how that poor creature died blessing him for having soothed the protracted agonies of phthisis. All that has been well done for others will come back like a perfume. And if there be ills to recount, services extorted fraudulently, just payments denied, care and skill requited by ingratitude and abuse—never mind, the Recording Angel will not leave such things out of his Book.

Meanwhile, it may be profitable to muse over some of the lessons of the year—short and busy as it seems—that is now closing over us. For ourselves we may say, that with much labour and much responsibility we have been cheered by the approbation of a weighty and increasing body of readers. Truly, the responsibilities of editorship are not to be underrated. To fly to the defence of our brethren, when injured or maligned; to point out and gently repress errors within our own ranks; to present the whole working of the Profession in such a light as to attract the respect of the public, are no light matters. It will be a bad day for our Profession, when periodical literature shall be abandoned to unscrupulous *littérateurs*, just as if our Profession were like a jealous and exclusive trade, or, as if it could have any interests apart from all that is liberal, and scholarly, and philanthropic.

That which strikes us most palpably, on reviewing the history of the year, is the enormous responsibility which haunts our slightest actions, and the possibility that, when fatigued, or careworn, or disgusted, or hasty, some unlucky slip may undo the work of years of toil.

Many occurrences have taken place during the passing year which bear a dark impress. Never has more been exacted, or have severer reprisals been demanded, from members of our Profession in cases of real or alleged shortcoming. The cases of Hall *v.* Semple, of Dr. Philbrick, of Mr. Prosser, of Monmouth, of Weir *v.* Hodson, of O'Reilly *v.* Carter, of Rich and Wife *v.* Pierpont, all tend to prove our assertion. The public will make no allowances; and if a man would avoid the expense and degradation of an action at law, or the disgrace of a reprimand from a coroner's jury, he must ask them to make none. The only method to meet this state of things is to act with redoubled care and vigilance, to sacrifice any amount of personal consideration or convenience, to be led aside by no suggestion from without, and to rely upon doing the best after the maturest consideration. Even then we may fail; and, in that case, we may too frequently find failure construed into a crime. A more general habit of combined action on the part of the Profession would remedy much of the evil of which we complain. A consultation has saved thousands of reputations, for one that it has injured.

We fear the Profession cannot be said to have earned a higher reputation in courts of law. The scandal of Medical men ranged against each other in opposing phalanx, has met with its most notable example in the Windham case; but instances have not been wanting where Practitioners have been placed in the witness-box with the avowed intention of depreciating another's skill or attention. We think me may fairly lay claim to the merit of having set the question of the compulsory attendance of a skilled witness at rest. In our article, entitled "Lessons from a late Lawsuit," we have shown that there can be no real ground, moral or legal, for a Practitioner acting contrary to the dictates of his conscience in this respect.

The opposed position of Law and Medicine with regard to insanity has been frequently discussed in our pages. The Lord Chancellor's Bill, which was framed to exclude any expression of opinion on the part of the Medical witness in lunacy cases, was so altered, in its passage through the Legislature, as to be robbed of this its chief and most objectionable feature. The present position of Toxicology, and its practical working, we think, demand careful attention on the part of the Profession. It is not too strong an expression to use, when we declare, that this year has been disgraced by a

poison panic only worthy of the ages of superstition and darkest ignorance. We fear that to our own Profession the blame is mainly due. We must renew our protest against the introduction of ungrounded theories as evidence, in the witness-box, in criminal prosecutions. In the Manchester murder case, in the case of Constance Wilson, in the late case at Ludwell, and in the case of Elizabeth Ann Abdallah, who died from perforation of the stomach, we have not shrunk from the disagreeable task of exposing what we believe to have been at once false in science, and contrary to the meaning and scope of the words "skilled evidence."

A more pleasant thing is it to take stock of our year's scientific results. Varied as have been the tastes of our readers, we trust we have, from time to time, met them all in turn. Here we can only refer to a small portion of what we have done. To the practical man we have offered, amongst other matter, complete and able *résumés* of the subjects of Embolism, Syphilis and Vaccination, and the Numerical Method; to the naturalist and ethnologist we have supplied mental pabulum, in the shape of reports of Professor Owen's lectures on Birds and Reptiles, papers on Early Man, and numerous reports of scientific matters, which rarely find their way into Medical periodical literature; to the Chemist, articles on Dialysis and the new system of Chemical Nomenclature; to the Physiologist, Professor Gulliver's Lectures on the Blood of Vertebrata, Professor Pettenkofer's Researches on Respiration, and articles on Philosophical Anatomy. Lastly, for the Medical Jurist, we have given accurate accounts of all the *causes célebrès* of the day; and we allude with no little satisfaction to the effect produced by our article on the fate of the convict Gardner.

THE LATE DR. KNOX.

Just as we are writing the final words of the preceding article, we receive information of the decease of Dr. Robert Knox, on December 20, at his residence at Hackney. He was seized with apoplexy on Monday, the 15th, and never rallied. His health had failed for some time; and for a few days before the attack his friends noticed that his pulse was intermittent, and that he needed stimulants to keep him up. He was the son of Robert Knox, teacher of mathematics in the University of Edinburgh, and was born in that city on September 4, 1793. He claimed descent from that ancient and reputable Scottish family of Knox, of which John Knox, the energetic and turbulent Puritan reformer and iconoclast, was a member; and, we believe, was lineally descended from William, a brother of John. He was educated at the High School of Edinburgh, where he obtained the gold medal in 1810, and where his name still shines from a tablet on the wall, on which the names of the medallists are recorded. On leaving school, he studied medicine in the then illustrious Medical School of the University of Edinburgh, and, on taking his degree, entered the Army, and was appointed Staff-Assistant Surgeon, and attached to the 72nd Regiment. He soon after went to the Cape, and saw active service during the first Kaffir war in the years 1819-22. On his return he quitted the army on half-pay, and began to teach anatomy in Surgeon's-square, Edinburgh, as successor to Dr. Barclay. This was the meridian period of Dr. Knox's life. As an anatomist and teacher he was unrivalled; his lecture-rooms were crowded; and he is said to have taught between five and six thousand pupils during the time of his professorship, amongst whom the names of William Fergusson, John Hughes Bennett, Richard Owen, John Goodsir, the late Professor Reid, and the late Director-General Alexander, shine conspicuously. In 1845, he left Edinburgh and came to London, where his intellectual activity found vent in a variety of occupations. He gave lectures on Ethnology at the principal scientific institutes in the kingdom; he attached himself to the Royal Free Hospital in Gray's-inn-lane, and was pathologist to the Cancer Hospital. He also employed himself extensively in literature; and, in addition to a translation of Cloquet, which he had brought out some years before, and of Tiedemann on the "Arteries," he translated Milne-Edwards' "Manual of Zoology" (of which a second edition was on the eve of publication at the time of his death); he wrote a new "Manual of Anatomy," a particularly valuable book for the glimpses which it gave, short though they were, at a something in anatomy above and beyond the dry empirical enumeration of surfaces and processes; a "Manual of Artistic Anatomy for the Use of Painters, Sculptors, and Amateurs;" a work entitled "Great Artists and Great Anatomists;" and, lastly, his immortal book on "Ethnology, or the Races of Men." But besides these greater works, were many lesser memoirs scattered throughout the transactions of various natural history societies, of which a paper on the "Affinities of the Trout and Salmon" attracted much attention. Dr. Knox was early married, and had six children, of whom one only survives him. So far as outward person is concerned, nature was niggard in her gifts. He had lost an eye from small-pox in early childhood, and his features otherwise were not prepossessing; but no man can expect to be armed at all points; and if Dr. Knox was as ugly as Jack Wilkes, he was as great a favourite with the women. In gifts of speech he was unequalled. His voice bland and harmonious; his manner earnest and persuasive; his *facundia*, or by whatever other name we may call that seemingly inexhaustible flow of the choicest and most apposite language, his clearness, his logical precision in speaking, and the enormous amount of information on all subjects connected with natural history and fine art, which flowed without effort from his lips—all conspired to make him justly a favourite with all who formed his acquaintance. His character and opinions may be gathered from his books, every one of which not only is marked by the special faults and excellences of the author, but likewise contains many things in common with the others. Of such books, the "Ethnology" is, perhaps, the most full, the "Great Artists and Great Anatomists" the most violent; but the "Artistic Anatomy" that which will enable the reader to see the author's character in the shortest space. The writer of this notice had the privilege of reading it through one evening to a well-known noble law lord, who was delighted with its pungency and suggestiveness. Amongst these characteristics, the first which would strike an ordinary reader (that is, one whose studies have been hitherto confined to "good books," who has never ventured beyond the shallow waters of what everybody believes, nor tried his faith in the rough waves of philosophy—one who has been hitherto a firm believer simply because he has never been tempted to doubt) is the bitterness with which Dr. Knox inveighed against all authority, political, civil, and religious. The pungency with which he assailed the ancient Scriptures (in the "Great Artists and Great Anatomists") we do not hesitate to pronounce unbecoming and ungrateful; yet there was, we are assured, more of the triumph of the logician than of the sceptic. He delighted to find flaws in the Pentateuch, and to show that its historical authority was superseded by modern philosophic anatomy and geology; yet he is said to have availed himself of the consolations of that Church which is built upon the foundation of the apostles and prophets as on a rock, and whose existence as a fact and whose working really defy all attempts to nibble at its elder substructures. In like manner, in politics, Dr. Knox railed at all that was Government: he abused the Normans for conquering the Saxons; he held the Holy Alliance up to disgust; yet, if he had been a very Frenchman, he could not have been a greater idolater of the Emperor Napoleon. Radical as he was, he yet felt the honest pride of a Scotsman at his own ancestry, and longed to get possession of Ranfurly, an ancient domain where his family had been *lairds*, and the occupation of which place and title by his Irish kinsman, Knox, Earl of Ranfurly, he complained

of. To have such a grievance may be, in itself, a consolation and a pride. In spite, too, of his savage radicalism, and that during a part of his career he was not free from all blemish, he was, in private life, pre-eminently tender, friendly, and affectionate: he educated his orphan nephew, and inspired the greatest respect and friendship in all who were admitted to his intimacy, amongst whom may be mentioned his friend and publisher, Mr. Renshaw, and many who made his acquaintance amongst that literary and scientific *coterie* which is usually to be met with in a great publisher's parlour. In fact, so so far as those points in his character are concerned, which seem open to criticism, they admit of easy and innocent explanation on these grounds. First of all, there was the blood of the Knox family. Make allowances for the difference between a preacher-politician and a philosophical anatomist. The Doctor was but the reformer "in a higher power;" and carried out against all "kingcraft and priestcraft" the same revolt which his predecessor had instituted against "the monstrous regiment of women," and the religious authorities of his day. Then, again, the Doctor had plunged into new speculations on philosophy, in matters which the Almighty has evidently left open to the human intellect to explore, and which, as we believe, are not only not incompatible, but in the highest degree consonant, with Christianity, although they may not agree with the notions of some Christians. The clergy are apt to be jealous of new ideas, and Dr. Knox did not object to a poke at the clergy. His scepticism, or assumed scepticism, was a part of his life and occupations. But in the next place, as the English are the most free people on the face of the earth, so are they the greatest grumblers, since none other than free people dare grumble; and so it is that many a good father of a family, and honest, well-to-do citizen, can safely indulge in vituperations of priestcraft, bigotry, dark ages, tyranny, oligarchy, Norman aristocracy, etc., etc., as a recreation. But these are really figures of speech, and mean nothing. Political grievances that can be paraded in the face of a "tyrant aristocracy" are but skin deep, and scarcely that. Passing over, then, those peculiarities in Dr. Knox's writings which might offend and deter some readers who are accustomed to take such things *au sérieux*, and not to weigh them at their real value, let us hastily review his substantial opinions, in the industrious propagation of which—mixed as they are with truth and error—he did what we may call "his work," and left his mark upon the opinions of our time. In the first place were his notions of "Nature." Throughout all his writings, from first to last, it is evident that he never for a moment forgot the impression made on him in early life by his first view of the *wilde* in South Africa—of a ground untrodden, and a landskip whose features are unaltered by man—(we may observe, in passing, that he it was who gave to the scientific world the first account of the Kaffirs, in the *Transactions* of the Wernerian Society for 1821); and whoever would read what expresses genuine emotion, should read what he says of his first view of Nature's landskip—that landskip so different from the trim gardens in which civilised man takes his pleasure—a portion, as he called it, of the primitive world, with no vestiges of human handiwork, with myriads of wild animals disporting in open daylight. He had a kind of Nature worship—a belief in some grand, mysterious, incomprehensible principle of life which brooded over all changes on this globe, and out of an inexhaustible womb was perpetually bringing forth new forms of living things. All life, he believed to be one and indivisible; every living thing to form but one link in a mysterious chain, stretching from the remotest past to an unfathomable future. He delighted in tracing in the bones of man those slight, but, to the philosophic eye, most important markings, which tell of the affinities of man to other creatures. Love of life, and of life, in particular, as manifested by all that is young, and fresh, and vigorous, and love of the earth's surface and landskip when in their unaltered beauty in sunny climes, were looked upon by him as primary affections, evidencing man's relationship to this mysterious power of Nature. Age, decay, and ruin are hateful, because they remind us instinctively of death. Woman in her prime is the highest and most beautiful work of Nature. Love of the Beautiful in Woman as represented in the greatest works of the greatest artists, is not a mere sensuality (peculiar to man as *vir mas*), but a pure and holy sentiment of affection for universal Nature, in this her highest embodiment and creation. Did our space permit, how gladly would we detail those true principles of criticism in high art with which Dr. Knox's "Artistic Anatomy" is pregnant! How he stultifies the industrious colourmen, wall-painters, stone-chippers, and other tradesmen, who fancy that they can become geniuses by studying anatomy. He shows that "anatomical" forms—all outlines of muscle, sinew, bone—everything that reveals the terrible and ghastly anatomical "interior" of man, do but speak of the charnel-house, of death, disease, suffering, famine and torture, and have no place where life and beauty should reign. If the figures of West, and some other painters whom we will not name, look not like flesh and blood, but like *leggy*, lath-and-plaster, half-animated anatomies, how can it be otherwise, says Dr. Knox, seeing these painters began by drawing skeletons, and never lost the habit? Fine art, its cultivation and estimation, were regarded by Dr. Knox like a lofty literature—a test of the true character of any race—of their power of appreciating truth, philosophy, and science. All mere *fashion*—all utility, perish from the face of the earth! These races only leave abiding memorials who follow Nature and truth. Of course, Dr. Knox loathed teleology, or the utility principle. If philosophical anatomy have done any service, it is that of teaching man not to measure the only Wise, Omnipotent, and Mighty Creator by his own gauge, and to set up "utility" as an end in creation—man constituting himself, meanwhile, judge of what is useful. Let not Christianity be too severe on men of "infidel tendencies," if they help to purge the sanctuary of those base traders and money-changers who would bring down the great Creator to such a mean level.

The "Races of Men," our author's chief work—a work which his acrimony, scepticism, want of proper arrangement, carelessness, and repetition would have damned, had it not been for its truth—represents the various tribes of man spread over the earth, each planted by Nature where it was best adapted to flourish. Races have original and inherent, not acquired, differences. No outward circumstances can alter them. In vain, according to Dr. Knox, do races intrude on other domains, or attempt to occupy climate other than their own. Nature resumes her sway. The intruding race dies out if it remain isolated; or if it intermarry with the natives, the intruding blood is, after a few centuries, lost and swamped in that of the indigenous population. He looked forward to the day when the Indian tribes should resume their sway in America, and Spanish blood be as imperceptible there as Roman or Norman blood is now in England. He taught emphatically the primary difference of races in moral character; and that the institutions and governments suitable for some could not be forced upon others. The French will have a tyrant; the English will make their own laws; some drink beer and Protestantise; some drink wine and adhere to the Pope. All these differences were insisted on by Dr. Knox as things to be studied by those who rule the destinies of man, and who parcel out nations and kingdoms in defiance of the character and predilections of the people. But Dr. Knox's grandest point is his incessant sarcasm at the blindness, the self-conceit, the utilitarian tendencies, the specious hypocrisies, the self-gratulation which is exhibited by us, who call ourselves the Anglo-Saxon race, and to a still greater degree by our unhappy relatives in America. How he shows us up as a set of grasping, hypocritical, hard-fisted tradesmen at bottom! If it be true that pride is insufferable before man and angels, and that the moment the great king

said, "Is not this the mighty Babylon, which I have built, the glory of my kingdom, and of my excelling power?" in that moment he fell; then it is good that we, in our day, have had a monitor in Dr. Knox, pointing out that the "empire over which the sun never sets" stands not exactly by our own virtues or our own will, and that, perhaps, when we have served the designs of Providence, we, too, may be ranked with things of the past.

But we must stop. Writing against time is not an easy task, even when so fertile a subject is before us as the life and opinions of Dr. Knox. He had his faults; but did his work. R. I. P. Let us wind up with this bit, which will show his outward religion, although, as we have before said, he found something in his latter years more substantial than the worship of abstract Nature. Love of the landskip, he says, "is, of all man's instincts, perhaps the deepest. The landskip forms, as it were, the connecting link between man and his mother Earth; deepest feeling of all: perhaps universal. Civilisation cannot utterly destroy the feeling. As a citizen—an inhabitant of large and populous towns, he does his best to destroy the connecting link between his mind and the landskip of Nature. But all in vain. In infancy he seeks the green fields, the forest, the river banks; in the tide of manhood he rushes from the smoky haunts of man to the mountain top, and fills his rich apartments with landskip paintings—substitutes for Nature; and when about to quit its mortal abode, the mind sees, in blissful visions, green fields and running streams, the representatives of that earth from which he sprung, and to which he is about to return."

GENERAL CORRESPONDENCE.

REMOVAL OF AN OSSEOUS TUMOUR FROM THE THYROID GLAND.

LETTER FROM MR. D. W. PARSONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—The enclosed paper was read before the Liverpool Medical Institution at its last meeting, and was recorded upon its minutes. As the case is a very rare one, I think it worthy of a place in your columns:—

"Miss C., aged 21, a tall, healthy-looking girl, but of a very marked hysterical temperament, first came under notice on July 5, 1862. She was then, and had been for ten weeks previously, suffering from paralysis of the extensor muscles of the left forearm, with rigid contraction of the flexors of same, the result of violent exertion while dragging a bed across a room, when 'she felt something giving way,' and she fell upon her left arm. She had been treated for fracture previous to her coming under my care. I administered chloroform, and was enabled to straighten the fingers and hand, and place them upon a long splint. Electro-magnetism was tried for several weeks before any action of the extensors was produced. There was complete loss of sensation as far as the elbow, on the posterior aspect of the limb. About August 20 my attention was first drawn to her neck. She complained of great difficulty in swallowing, and her voice was reduced to a whisper. She said, 'there was a lump in her throat, which she was sure would choke her.' I found the thyroid gland enlarged in its right lobe, and a hard substance appeared to lie external and posterior, slightly movable, and free from pain on pressure. The tonsils were not enlarged, nor was there any abnormal appearance of the pharynx to account for the dysphagia. I decided upon watching the symptoms, and told Miss C. that if she became worse it would be necessary to remove this tumour, as it could not be absorbed by medicines. She told me that her neck first became swelled about ten years ago, but that until now she had not suffered any inconvenience from it. Before attempting the operation, the dangers of which induced me to delay, I advised her to consult some other Surgeons as to its practicability. She did so; and, amongst others, I may mention that Dr. Waters, of Hope-street, strongly advised her not to submit herself to the operation. He ordered iodine externally, together with potassii iod. and cod liver oil internally. This treatment was persevered in for some time without any benefit; the dysphagia and aphonia were increased, and at length she begged of me to operate upon her, 'as she would rather die than suffer any longer.' After I had made her fully aware of the danger of the procedure, I asked my friends, Dr. Arnold and Dr. Goodall Jones, to meet me on Saturday, September 27, and afford me their valuable assistance.

"Chloroform was administered by my assistant, Mr. Alexander Bligh; a vertical incision, about three inches in extent, was made three-quarters of an inch to the right side of the mesian line of the trachea; the dissection was conducted cautiously, until the 'sterno thyroid' muscle was exposed; this was drawn outwards to enable me to see the enlarged lobe of the thyroid gland, and then I found that the tumour was enveloped in the gland. At this stage of the operation, I felt alarmed at proceeding any further, as I feared it would be necessary to remove the gland itself, if I desired the extraction of the tumour. My friends, Drs. Arnold and Jones, concurred with me, and we had almost decided upon not proceeding with the operation, when Mr. Bligh felt a hard spicula of the tumour, which was merely covered by a thin capsule. I divided this by a very small opening, and, finding that no connection, further than the same investing capsule, existed between gland and tumour, I was enabled to enlarge the opening sufficiently to remove the tumour you see before you. There was a great deal of hæmorrhage, mostly venous; only two small arteries needing the ligature. The tumour weighed 6½ drachms, presented a nodulated appearance, spiculæ of bone protruding in various places, and numerous vascular cells, containing dark venous blood, scattered all over the surface, and no communication existing between any two, so that it would appear to have derived its nutriment from exosmotic transudation from the vessels of the thyroid gland. Its size was about that of a bantam's egg. I was unable to divide it with the scalpel, and, upon sawing it through, the interior was found to be composed of perfectly formed ossific matter, and presenting an appearance very similar to the 'arbor vitæ.' Immediately, upon recovering from the chloroform, she cried with joy, finding that her voice was perfectly restored. There was nothing remarkable or worthy of recording in the recovery from the operation. The wound was quite closed on the fourteenth day, and in a few days afterwards she was able to go out of doors. It is extraordinary that, the day after the operation, she was able to flex, extend, and elevate the affected arm; the flexors muscles of the fingers alone were contracted; sensation was fully restored.

"October 29.—Fingers still contracted; motions of the arm perfect, and sensation in arm and fingers acute. A double splint was applied, one along the anterior, the other on the posterior aspect of the forearm, with the fingers extended and firmly bandaged."—I am, &c.

DANIEL WALTER PARSONS, L.R.C.S.I.,
L.M. Rot. Hosp. Dub., late Hon. Surgeon to the St. Anne's Dispensary, and Eye and Ear Inst.
25, Great Homer-street, Liverpool, November 19.

REPORTS OF SOCIETIES.

HARVEIAN SOCIETY OF LONDON.

OCTOBER 16, 1862.

Mr. WEEDEN COOKE, President, in the Chair.

Mr. J. ZACHARIAH LAURENCE made some remarks on

ASTIGMATISM.

THIS defect of vision, he said, consisted in an inequality of refractive power in the different meridians of the eye. In most of the observed cases the vertical meridian possessed the greatest, the horizontal the least, convergent power on incident rays of light. This inequality existed in a slight degree in nearly all eyes; and, as Professor Donders had shown, was often present to a degree sufficient to constitute a substantial optical defect of the eye. Astigmatism might be diagnosed by a luminous point presenting a marked elongation, either in the one or other direction, according as we artificially make the eye slightly myopic or hypermetropic by a low convex or low concave lens; the elongation in the former case representing the maximum, in the latter the minimum, refracting power of the eye. Vision would mostly be found to be materially

improved by a slit held in either of these directions before the eye. Mr. Laurence then exhibited a "cylindrical" glass, and showed how this might be applied to remedy astigmatism. This optical defect was first discovered by Thomas Young in 1793, and was described at length by Prof. Airy, as it occurred in his own eye; but had hitherto been regarded as a curiosity of Ophthalmic Surgery, rather than as of that common occurrence which Professor Donders had really shown it to be. Mr. Laurence finally exhibited the subjective phenomena of astigmatism, by rendering the eye artificially astigmatic by means of a cylindrical lens held before the cornea.

Mr. DE MÉRIC read a paper on

SYPHILITIC ERUPTIONS.

The author first alluded to the analogies and differences existing between syphilitic eruptions, the exanthemata, and ordinary cutaneous manifestations; and, from this comparative view, concluded that eruptions, arising from the syphilitic virus, should be studied separately and especially. He stated that he wished to dwell particularly on the severer forms, without entering into histological and pathological considerations, which would carry him too far. In examining those severer forms, viz., the pustular and tubercular, which are so prone to run into troublesome ulceration, the author inquired whether the eruptions observed in our days were of a milder character than those which prevailed two centuries ago. Before, however, entering into this inquiry, Mr. de Méric made a few remarks on the diagnosis, ætiology, and therapeutics of syphilitic eruptions. To show that the diagnosis, in spite of the rules laid down, and the possession of some experience, was, now and then, very difficult, he quoted several cases from his own practice, in which errors were committed, or where the diagnosis afforded considerable embarrassment. Touching, then, on the ætiology of syphilitic eruptions, he stated that the hardness of the chancre could not, in all cases, be relied on, as to pronouncing the advent of eruptions; and cited several cases, in his private practice, where secondary manifestations on the skin had followed mere scratches on the glans and prepuce. These, however, were considered as exceptions, the relation between hard chancres and secondary symptoms being the rule. As to therapeutics, Mr. de Méric expressed his full confidence in the use of mercury; and contended that the success of the non-mercurialist was only apparent. He relied, in a great many cases, on mercurial fumigations, which were extremely useful as general and topical agents. Some striking cases were cited, proving that several courses of mercury did not injure the system. The author now exhibited a great number of drawings, obtained from patients who had been under his care, illustrating the different eruptions observed in syphilis. The drawings were divided into two great classes—the dry and the moist eruptions, and these classes respectively divided into groups. The first group comprised all the simpler, milder, and dry eruptions; the second the pustular eruptions; the third the pustules or tubercles which had run into ulceration; the fourth contained the cases where the ulcerations had become phagedenic without sloughing; and the fifth, which included no less than six fatal cases, showed the lamentable results both of sloughing phagedena, and the extensive destruction of parts by phagedena supervening on periostitis or osteitis. The illustrations of the fourth and fifth groups were derived from Hospital patients, in whose cases neglect and excesses of all kinds had acted very injuriously. From comparing the number and severity of the cases, with the descriptions left by Physicians who wrote in the sixteenth and seventeenth centuries, Mr. de Méric concluded that the disease, though it now and then, even in our days, made a certain number of victims, was not, however, of so fearful a character as formerly.

ECLAMPSIA FROM LEAD-POISONING.—In a case of fatal saturnine eclampsia which occurred in M. Trousseau's wards, M. Chatin has detected three milligrammes of sulphuret of lead in 250 grammes of the substance of the spinal cord, and a somewhat less quantity in that of the brain. But the liver was the organ which contained the largest quantity, this being four times greater than that found in the spinal cord. A similar case occurred in M. Piorry's wards; and M. Fordos detected the presence of lead in the nervous centres, which he had also already done in two cases of saturnine epilepsy. —*Gazette des Hôpitaux*, No. 37.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the Ordinary General Meeting of the Fellows, held on Monday, December 22, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Henry Gervis, M.D., 12, St. Thomas's-street, Borough; William Cayley, M.D., 14, Old Burlington-street; Edmund Symes Thompson, M.D., 3, Upper George-street, Portman-square; Morris Tonge, M.B., 3, Lancaster-terrace, Hyde-park-gardens; Henry Matthews Tuckwell, M.B., Oxford; Edward Montgomery, M.D., 25, Queen's-road, Regent's-park; and Geoffrey Pearl, M.D., 47, Victoria-street, Westminster.

At the same meeting, the following gentleman, having undergone the necessary Examination, and satisfied the College of his proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, was duly admitted to practise Physic as a Licentiate of the College:—

Edmund Cutis Nicholson, Dublin.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—At a meeting of the Council on Thursday, the 18th inst., the following Members of the College were reported to have undergone the necessary Examinations for the Fellowship to the satisfaction of the Court of Examiners, viz.:—

Hector Helsham, Doughty-street, Mecklenburg-square, diploma of membership dated August 14, 1846; George Fowler Bodington, Cleveland-terrace, Middlesborough, November 9, 1849; Henry Wilson Sharpin, Bedford, March 22, 1850; William Adams, Harrington-square, July 5, 1850; Jonathan Hutchinson, Finsbury-circus, August 2, 1850; William Spencer Watson, Southampton-street, Bloomsbury, July 3, 1857; Francis Mason, Conduit-street, Hanover-square, July 23, 1858; and Robert Charles Brown, Preston, Lancashire, November 5, 1858.

The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the same day, viz.:—

Anthony Holbraw, Stonehouse, Gloucestershire, diploma of membership dated March 5, 1819; David Thomas Morton, H.M. Indian Army, July 8, 1836; Richard Chambers Roberts, Ruabon, Wales, December 17, 1837; William Hall, Lancaster, July 17, 1840; George Francis Keys, Warwick-street, Regent-street, April 16, 1841; and David Davies, Aberdare, August 18, 1843.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received certificates to Practise on Thursday, December 18, 1862:—

Francis Drake Pearce, Kingsbridge, Devon; Balthazar Walter Foster, Queen's College, Birmingham; Charles Evers, St. Bartholomew's Hospital; George Augustus Pointer, Camden-town; Henry Paer Mallam, 3, Southampton-street; George Douglass, Gateshead-on-Tyne; John Deans, St. Mary's Hospital; and Henry Lyell, Guy's Hospital.

The following gentlemen also on the same day passed their First Examination:—

Edwin Burrell, Guy's Hospital; Frederick Sutton, Guy's Hospital; Frederick McNair, Guy's Hospital; William John Wey, Middlesex Hospital; and Thomas Hinchliffe Haigh, Leeds.

APPOINTMENTS.

ABBOTT.—R. T. Abbott, M.D., Assistant-Surgeon Indian Service, has been appointed to the Medical charge of the Gwalior Agency, *vice* Assistant-Surgeon F. Crosbie, deceased.

ANDERSON.—John Anderson, M.R.C.S. Eng., L.S.A. Lond., has been appointed Junior House-Surgeon to the Manchester Royal Infirmary and Dispensary, *vice* William Owen Jones, M.R.C.S. Eng., L.S.A. Lond., promoted to the office of Senior House-Surgeon, in place of William Ravenscroft Heath, M.R.C.S. Eng., L.S.A. Lond., whose term of office has expired.

BLAKE.—Valentine Walshman Blake, F.R.C.S. Eng., L.S.A. Lond., has been re-appointed one of the Honorary Surgeons to the Birmingham and Midland Counties Lying-in Hospital and Dispensary for Diseases of Women and Children, on the expiration of his term of office (10 years).

BOW.—J. C. Bow, M.D., Assistant-Surgeon Indian Service, has been promoted to Surgeon, *vice* S. Henry Batson, M.R.C.S. Eng., retired.

BROWN.—William Henry Brown, M.D., M.R.C.P. Lond., formerly Lecturer at the Charing-cross Hospital, and Physician to the Farringdon Dispensary, has been appointed, provisionally, Consul at Torquay for the Republic of Liberia.

BRUCE.—H. A. Bruce, M.D., Inspector-General of Hospitals with temporary rank, Indian Service, has been promoted to be Inspector-General of Hospitals, *vice* G. McKinnon, M.D., C.B., retired.

CARDEW.—G. S. Cardew, Deputy Inspector-General of Hospitals with temporary rank, Indian Service, has been promoted to be Deputy Inspector-General of Hospitals, *vice* Bruce.

COLLINS.—J. C. Collins, Assistant-Surgeon Indian Service, has been promoted to Surgeon, *vice* Inspector-General of Hospitals C. McKinnon, M.D., C.B., retired.

Corbyn.—Assistant-Surgeon F. Corbyn, Indian Service, Civil Assistant-Surgeon of Bareilly, has been appointed to take charge of Dr. A. P. Tomkyns' duties as Superintendent of the Central Prison at Bareilly during Dr. Tomkyns' absence on sick leave.

Courtenay.—Joshua Fasley Courtenay, L.R.C.S. Irel., Assistant-Surgeon R.N., January 26, 1860, has been appointed to the *Excellent*.

Eastlake.—Henry Edward Eastlake, M.D., L.K.Q.C.P. Irel., and L.M., M.R.C.S. Eng., and L.M., L.M. Univ. Edin., L.M. Rotunda Hosp. Dub., has been appointed Accoucheur to the St. Marylebone General Dispensary, Welbeck-street, Cavendish-square, *vice* Alexander John Balmarno Squire, M.R.C.S. Eng., and L.M, L.S.A. Lond., resigned.

Foy.—The posting of Assistant-Surgeon James Augustus Foy, Indian Service, M.R.C.S. Eng., to the 9th Regiment Native Infantry has been cancelled, and he is to continue to do duty in the Northern Division.

Gairdner.—William Tennant Gairdner, M.D. Univ. Edin., F.R.C.P. Edin., Professor of the Practice of Medicine in the University of Glasgow, has been elected Physician to the Royal Infirmary, Glasgow, *vice* Joseph Bell, M.D. Univ. St. And., F.F.P.S. Glasg., deceased.

Gentle.—Peter Gentle, M.D., has been appointed House-Surgeon and Apothecary to the Northern Infirmary, Inverness, *vice* Robert Craig, M.B., resigned.

Guthrie.—Assistant-Surgeon A. Guthrie, Indian Service, 3rd Battalion Rifle Brigade, has been appointed to the Medical charge of Nynee Tall Convalescent Depôt.

Hart.—Ernest Abraham Hart, M.R.C.S. Eng., has been elected Ophthalmic Surgeon to St. Mary's Hospital, Paddington, *vice* William White Cooper, F.R.C.S. Eng, (exam.), resigned.

Johnston.—J. W. Johnston, M.D., Assistant-Surgeon Indian Service, has been appointed Civil Surgeon of Goojrat.

Noott.—William Francis Noott, M.D., Surgeon R.N. January 26, 1855, has been appointed to the *Egmont*.

Orford.—William Cockerell Orford, M.R.C.S. Eng., L.S.A. Lond., has been re-appointed one of the Honorary Surgeons to the Birmingham and Midland Counties Lying-in Hospital and Dispensary for Diseases of Women and Children, on the expiration of his term of office (10 years).

Pemberton.—G. Richard Pemberton, M.D., M.R.C.S. Eng., Assistant-Surgeon Indian Service, has been promoted to Surgeon, *vice* Surgeon-Major T. Alman Wethered, M.R.C.S. Eng., retired.

Petter.—Mr. Frederick Petter has been appointed Dispenser to the Nottingham General Hospital, *vice* Mr. George Shepperley, resigned.

Pollard.—James Pollard, M.R.C.S. Eng., L.S.A. Lond., has been elected Medical Officer for the St. Mary Church District of the Newton Abbot Union, Devon, *vice* Henry Appleton, M.R.C.S. Eng., L.S.A. Lond, deceased.

Reed.—J. C. Reed, M.D., Assistant-Surgeon 3rd Cavalry, Hyderabad Contingent, has been appointed to Medical charge of the 4th Cavalry (of which he was in temporary charge), *vice* Surgeon-Major W. Mackenzie, resigned.

Richardson.—Daniel Richardson, M.R.C.S. Eng., L.S.A. Lond., Medical Officer for the Western District of the Parish of Brighton, has been appointed to discharge the duty of the Medical Officer for the Northern District, the latter having been suspended.

Roe.—Edwin Hodgson Roe, M.R.C.S. Eng., L.S.A. Lond., has been elected Physicians' Assistant to the Manchester Royal Infirmary and Dispensary, *vice* Charles Hitchman Braddon, M.D. Univ. St. And., M.R.C.S. Eng., L.S.A. Lond., appointed Resident Assistant Medical Officer to the Bridge-street Workhouse, Manchester.

Steele.—Charles Steele, L.R.C.P. Lond., M.R.C.S. Eng., has been elected Medical Officer for District No. 1 (the parish of Clifton) of the Clifton Union, Gloucestershire, *vice* Thomas Edward Clark, M.R.C.S. Eng., L.S.A. Lond., resigned.

Thomson.—William Thomson, L.R.C.S. Edin., has been appointed House-Surgeon to the City and County Infirmary, Londonderry, *vice* Hugh Willis Thomson, M.D., Queen's Univ. Irel., L.F.P.S. Glasg., appointed Medical Officer to the Belturbet Dispensary District, Cavan Union.

Thompson.—Reginald Edward Thompson, M.B. Cantab., M.R.C.P. Lond., has been appointed Physician to the St. George's and St. James' Dispensary, King street, Regent-street, *vice* Joshua Harrison Stallard, M.R.C.P. Lond. (exam.), M.B. Univ. Lond., M.R.C.S. Eng., L.S.A. Lond., resigned.

Williams.—J. T. Williams, Assistant-Surgeon Indian Service, has been posted to the 38th Regiment Native Infantry.

Woodman.—Dr. Woodman has been elected House Surgeon to the Torbay Infirmary and Dispensary, *vice* William Godwin Coombs, M.D. Univ. St. And., M.R.C.S. Eng. and L.M., L.S.A. Lond., appointed Assistant Medical Officer to the Devon County Lunatic Asylum, Axminster.

Yarde.—William Yarde, M.D., Assistant-Surgeon R.N., June 15, 1859, has been appointed to the *Industry*.

DEATHS.

Ackerley.—December 20, Richard Yates Ackerley, of Prince Edwin-street, Everton, Liverpool, L.R.C.P. Edin. (exam.), F.R.C.S. Eng.

Bingley.—December 13, of malignant scarlet fever, caught in the discharge of his Hospital duties, William Philipps Bingley, of University College, London, Student of Medicine, aged 23. He had already (April 2, 1861) passed the Primary Examination for the Diploma of the Royal College of Surgeons, England.

Crosbie.—Recently, F. Crosbie, Assistant-Surgeon Indian Service.

Dowsley.—Recently, at an advanced age, John Ward Dowsley, of Clonmel, Co. Tipperary, M.D. Univ. St. And. (1825), F.R.C.P. Edin., F.R.C.S. Irel., M.R.C.S. Eng. (1822), L.M. Dublin Lying-in Hospital.

Eagle.—December 12, Francis Eagle, of No. 6, Bethnal-green-road, M.R.C.S. Eng., L.S.A. Lond., aged 53.

Glass.—November 7, at Indore, Alexander P. Glass, Assistant-Surgeon, Bombay Establishment.

Hawthorne.—December 19, John Stuart Hawthorne, of No. 30, Rodney-street, Liverpool, M.R.C.S. Eng., aged 36.

Horton.—December 17, at North End, Fulham, Fitzwilliam Patrick Horton, Mem. and L.S.A. Lond., aged 55.

Jervois.—December 15, at Yougbal, Francis Jervois, M.R.C.S. Eng., L.M. Dub. Lying-in Hosp., aged 47.

Lyon.—December 17, at Cornbrook, Hulme, Manchester, Edmund Lyon, M.D. Univ. Edin., M.R.C.S. Eng., Consulting Physician to the Royal Infirmary and Dispensary, Manchester, Heushaw's Blind Asylum, and Chetham's Hospital, aged 72.

Thomson.—November 10, at Goorgaon, Dr. William J. Thomson, Indian Medical Service, aged 30.

Tullis.—November 18, at Morgan's Bridge, Westmoreland, Jamaica, Dr. John Edie Tullis, formerly of Balrymouth by St. Andrews.

Twemlow.—December 15, Joseph Skerratt Twemlow, of Sandbach, Cheshire, Surgeon in practice prior to August, 1815, aged 68.

Sharp.—December 9, John Taylor Sharp, of Gravesend, M.R.C.S. Eng., L.S.A. Lond., aged 42.

LONDON GAZETTE.

December 19.

23rd Foot.—Staff Assistant-Surgeon Richard White to be Assistant-Surgeon, *vice* Langstaff, appointed to the Staff; dated December 19, 1862.

88th Foot.—Staff Assistant-Surgeon Robert Edward Heath, M.D., to be Assistant-Surgeon, *vice* Thomas Robert Williams, M.B., appointed to the Staff; dated December 19, 1862.

95th Foot.—Staff Assistant-Surgeon Thomas Michael O'Brien to be Assistant-Surgeon, *vice* Orpen, appointed to the Staff; dated December 19, 1862.

Medical Department.—Assistant-Surgeon Theobald Fetherstone Langstaff, from the 23rd Foot, to be Staff Assistant-Surgeon, *vice* Page, deceased; dated December 19, 1862.

Assistant-Surgeon Arthur Herbert Orpen, from the 95th Foot, to be Staff Assistant-Surgeon, *vice* White, appointed to the 23rd Foot; dated December 19, 1862.

Assistant Surgeon Thomas Robert Williams, M.B., from the 88th Foot, to be Staff Assistant-Surgeon, *vice* R. E. Heath, M.D., appointed to the 88th Foot; dated December 19, 1862.

Bengal Army.—Medical Officers.—Surgeon Samuel Adamson Homan to be Surgeon-Major; dated July 7, 1862.

Surgeon John Harry Littler, M.D., to be Surgeon-Major; dated August 2, 1862.

Madras Army.—Medical Officers.—Surgeon-Major Charles Irving Smith, L.R.C.P.L., to be Deputy-Inspector-General of Hospitals, *vice* Davidson, retired; dated October 3, 1862.

Assistant-Surgeon George Smith, M.D., to be Surgeon, *vice* Davidson, retired; dated October 4, 1862.

December 23.

4th West Riding of Yorkshire Artillery Volunteers.—Assistant-Surgeon Henry George Allanson to be Surgeon; dated December 8, 1862.

4th Administrative Battalion of Staffordshire Rifle Volunteers.—John Cooke, Gent., to be Honorary Assistant-Surgeon, *vice* Johnson, resigned; dated December 1, 1862.

1st Essex Engineer Volunteers.—Edwin Parker Gutteridge to be Honorary Assistant-Surgeon; dated December 16, 1862.

1st Clackmannanshire Rifle Volunteer Corps.—Peter Brotherstone to be Assistant-Surgeon; dated November 8, 1862; and commission of the same date as Honorary Assistant-Surgeon cancelled.

Royal Institution.—The following lectures will be delivered by Professor Frankland, F.R.S.:—Tuesday, December 30, at three o'clock, on "Air and Water" (juvenile lecture). Thursday, January 1, at three o'clock, on "Air and Water" (juvenile lecture). Saturday, January 3, at three o'clock, on "Air and Water" (juvenile lecture).

Odontological Society.—December 1, 1862; the President, Mr. Tomes, in the chair.—The Society resumed the discussion on Mr. Vasey's paper on "Retarded Development of the Permanent Teeth," read at the last meeting of the Society. The President exhibited to the meeting a number of preparations, showing the effect of supernumerary teeth in causing irregularities in the position of the teeth. A case of a cystic tumour of the upper jaw, from which twenty-eight small, imperfectly formed teeth had been removed, was described in a short paper by M. Tellander, of Stockholm. The teeth were exhibited to the Society. A point of considerable interest in this case was the circumstance of several of the permanent teeth not having appeared at the part of the jaw where the cyst was formed. The President, M. Tellander, Messrs. Cartwright, Coutin, Harrison, Underwood, and other members of the Society, took part in the discussion.

The Archæopteryx.—All those of our readers who have had the opportunity of an inspection of the specimen in the British Museum, must have noticed a curiously shaped concretionary substance embedded in the matrix on the right side of the skeleton. This was thought to be merely an accidental pebble, or some other body, bearing no relation to the organic remains; but Mr. John Evans, F.S.A., F.G.S., being of a different opinion, compared it with the cast of the brain of a carrion crow, and was struck with the remarkable similarity in shape between the two structures. A detailed account of this alleged discovery is to be found in an able article by Mr. S. J. Mackie, in the *Geologist* for January, 1863, on which we can only remark that this is not the first evidence which has

been afforded to geologists of the "fossil brains" of various animals. The opinions of palæontologists are divided respecting the value to be attached to the undoubted close resemblance between the brain of the existing bird, and the remarkable appearance presented by the fossil.

THE HUNTERIAN MUSEUM.—This interesting collection continues to be enriched with very acceptable donations from the International Exhibition. The most recent addition has been made by Mr. W. Lodewyk Crowther, a member of the Royal College of Surgeons, and one of the most distinguished men in Tasmania, who has presented to the Council two fine jaws of the sperm whale, captured off the south-west cape of Tasmania, each measuring fifteen feet, and belonging to animals which yielded eleven tuns of oil, realising in London £950. This gentleman also presented the jaw of the *Delphinus Orca*, better known as the "Thrasher," or whale's enemy. The Council of the College has just appointed Dr. James Pettigrew, of Edinburgh, an assistant in their museum. This gentleman has already greatly distinguished himself, having obtained the Senior Anatomy gold medal of the University of Edinburgh, for the best essay on the "Arrangement of the Muscular Fibres of the Ventricular Portion of the Vertebrate Heart." The researches on which this essay was founded procured for him the honour of being appointed Croonian Lecturer to the Royal Society for 1860; and it has received the additional honour of publication in the *Transactions* of the Society. The communication was illustrated by 122 dissections, and a corresponding number of drawings.

REMUNERATION TO MEDICAL MEN SUMMONED ON TRIALS.—In the case of Quinn *v.* Caulfield, tried before Baron Deasy, in the Court of Exchequer, in Dublin, on Wednesday, the 17th inst., the following discussion took place relative to the remuneration of Medical men who happen to be summoned to give evidence in the Common Law courts in *nisi prius* cases. The question is of much importance to the Profession. In the course of the case for the plaintiff, Dr. Speedy was called as a witness. Before being sworn, he said he wished to state that he had been in attendance, awaiting the trial, for thirteen days, and had, in consequence, suffered considerable pecuniary loss. He trusted that, under the circumstances, the Court would award him some compensation. Baron Deasy said he feared it was not in his power to comply with the application, as Dr. Speedy resided in Dublin. Dr. Speedy observed, that in the Court of Chancery, the Commission Court, and other courts, Medical men called as witnesses were always remunerated. If the Court felt that it had no power to make the order, he would, of course, submit; but, on the part of his Profession, he protested against the hardships imposed upon members of the Medical Profession. Baron Deasy said that, no doubt, it was a hard case, but under the law, as it at present stood, he had no power to make an order. Mr. Sidney said that the attorney for the plaintiff would be prepared to offer reasonable remuneration to Dr. Speedy for his loss of time. Dr. Speedy expressed himself satisfied with this undertaking, and was accordingly sworn and examined as a witness.—*Saunders' News Letter.*

ICELANDIC SKIER.—Their daily food is taken cold, and consists chiefly of raw, dried stockfish and skier. The latter dish is simply milk allowed to become acid and coagulate, and then hung up in a bag till the whey runs off. In this form it is both nutritive and wholesome, being more easily digested than sweet milk: while, to those who take to it, it is light, palatable, and delightfully cooling. Milk is prepared in this way by the Shetlanders, who, in the first stage, call it "run milk," and when made into skier, "hung milk." The same preparation is made use of by the Arabs, and it is also the chief diet of the Kaffirs and Bechuanas at the Cape. Our idea, that milk is useless or hurtful when soured, is merely an ignorant prejudice. Those who depend for their subsistence chiefly on milk diet, and have the largest experience, prefer to use it sour, and Medical authority endorses their choice.—*Pen and Pencil Sketches of Faroe and Iceland. By A. J. Symington.* Longmans, 1862.

BOOKS RECEIVED.

Letts' Diary; or, Bills Due Book, and an Almanack for 1863. London. No. 8.

Letts' Medical Diary for 1863; providing for all Matters connected with Daily Visits, Accouchements, Vaccinations, etc. Price 2s. London: Letts and Son.

Smith's Visiting-List for Medical Men. Seventeenth Year. Smith, 52, Long-acre.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Scalpel.—Go to Prince Edward Island, or the Falkland.

Dr. Quinlan's "Clinical Notes on Important Cases," shall receive early insertion.

Communications from Dr. Ussher and Dr. Venables on "Diabetes;" Mr. Robert Ellis, on "Hysteria;" Drs. Cotton and Leared, on "Phthisis;" Dr. Knox; Dr. Sankey; Dr. Fincham; and Mr. McWhinnie, shall appear as soon as possible.

Query.—Any man with a degree from any University may put "Dr." on his name-plate. If not registered we think he could be prosecuted.

Last week we noticed the excellent *Diaries* and *Visiting List* of the Messrs. Letts (Royal Exchange, E.C.) Now we have to acknowledge the receipt of a specimen of Messrs. Smiths' *Visiting List* (52, Long Acre, W.C.) We have ourselves used the latter for many years, and can testify to its great convenience and usefulness.

Dr. Blake, of San Francisco, in an able paper on "Gonorrhœa," contributed to the *Pacific Medical and Surgical Journal*, states the following as his conclusions:—

"The points I have endeavoured to establish are, that—

"1. Gonorrhœa is a purely local disease with nothing specific about it.

"2. That the principal cause of the difficulty experienced in curing it, is the contact of the urine with the inflamed surface of the urethra.

"3. That by always washing out the urethra with water after urinating, we remove the cause that keeps up the inflammation, which then generally can be subdued by purely local means in two or three days.

"4. That there are different forms of gonorrhœa, as there are of opthalmia."

Charge of Plagiarism against Dr. Tweedie.—We are informed, on the best authority, that the charge of plagiarism from Dr. Murchison, which was made against Dr. Tweedie in last week's Number of the *British Medical Journal*, could only have been framed by a person who was unacquainted with the relative position of those gentlemen. We are assured that the materials which Dr. Tweedie is accused of appropriating without acknowledgment, were in reality drawn up by Dr. Murchison, at the request of Dr. Tweedie, in order to be employed by the latter gentleman in his lectures at the College of Physicians. This was done at a time when the records of the Fever Hospital were at Dr. Tweedie's disposal, and when Dr. Murchison could not have used them without his senior's leave. There is, therefore, no other plagiarism than is customary with every senior at the Bar or in Physic, who leaves it to his juniors to collect statistics, and write out the details of any given case. We are assured, further, that this very grave charge, thus made in the absence of correct information, found its way, by pure inadvertence, into the columns of the *British Medical Journal*, and that, till published, it had escaped the eye of the editor, who has promised all the reparation due to the two gentlemen whose mutual position is compromised by this accident.

LEGALITY OF MIDWIFERY PRACTICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Seeing the report of an inquest respecting the death of Mrs. Sarah Bowler, in your journal of last Saturday, the remarks of the coroner show how totally ignorant he is with regard to the legality of Midwifery practice, and I would refer him to Dr. Glover's abstract of the Medical Act, published by Mr. Renshaw in 1858. At page 45 it states: "Midwifery is no branch whatever of the Medical art: any one may practise it, as being the superintendence and assistance of what is generally a healthy natural function, and from the necessity of the case." I beg further to remark, no Midwifery licence or diploma is recognised by the Medical Act, nor will they be registered; therefore, Mr. Talbot was just as legally entitled to attend a Midwifery case as either Dr. Robinson or Dr. Kennedy.

Trusting that the coroner will be more guarded in his remarks should a similar case come under his notice, I am, &c. L., M.D.

HALL V. SEMPLE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I conceive we are all under much obligation to you for your pleadings in extenuation of Dr. Semple's case. In justice, the court should certainly have taken the same view, and have given very moderate, or even nominal, money damages. A second opinion, and filling up of formulary for sending a person to an Asylum, we know, is frequently made, in good faith and Professional honour, with the first called in; in fact, as a matter of course. Who, then, is the real cause of bringing Dr. Semple into this predicament, or, as it turns out, law-trap. If a Member of the Profession did so, he deserves legal punishment, or, at all events, the erasure of his name from our lists.

I am, &c. AN OLD SURGEON.

UNIVERSITY MEDICAL AND SURGICAL DEGREES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—"An Old Student," in remarking, in a late Number, on your accomplished correspondent's able article on "Medical Education in Glasgow," says there is an imperative demand by the Profession for the degree of M.D., and instances, as his proof, the late "ugly rush" to St. Andrews, where, by the way, there are at present upwards of 380 candidates—a number quite unprecedented in the history of any University. So far, so good. But I take exception to his idea of the comparative ease with which University Medical and Surgical degrees are obtained. He says one enters a University, say the University of Glasgow, and after four years he is quite sure, at 21, of M.B., and (if he have £10 to spare, and do not feel quite up to Surgeons' Hall) the degree of Chirurgiæ Magister

(C.M.), to become a full-fledged M.D. at 24! Wonderful "Old Student" this correspondent of yours must be, Sir! He surely cannot have read the details of the careful and elaborate article of your Glasgow correspondent, or he would have found a very different story. But, perhaps, the "old" gentleman's memory has failed him. I would, therefore, respectfully recommend him to read carefully over again the Artiele in question, and I think he will agree with me that a Medical or Surgical degree from the University of Glasgow entitles its possessor to a high place in the Profession.

Again, Sir, your "Old Student" demurs to a graduate in Surgery being held equal by the Army and Navy Boards to a M.R.C.S.! Equal, forsooth! The fact is, that a Master in Surgery, by his University curriculum and special examination in Surgery, when he goes in for the M B degree, occupies the same relative position towards a M.R.C.S. that a graduate in Medicine does to a Licentiate in Physic. The analogy is precisely similar.

As you are aware, Sir, this degree in Surgery is quite new to most of the Universities. It promises to be very popular with students, and highly prized, as it justly deserves. The highest ambition of the student now is to obtain from his University the degrees of M.D. and C.M.— the highest in each branch of the Profession. I am, &c.

December, 1862. FIAT JUSTITIA.

QUESTION AS TO THE INVENTION OF "BUTCHER'S SAW."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you allow me a word or two of explanation in your periodical in reference to a discussion between Mr. Hilliard, of Glasgow, and Mr. Butcher, of Dublin, about a Surgical bone-saw, with double-extending screw, and blade pointed at each end, for cuttiug in a curvilinear as well as in a straight direction; Mr. Hilliard claiming the invention for Mr. Graham, Surgeon, and Mr. Butcher for himself. That discussion stands in the new series :—

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I do not wish to renew that discussion, or utter a single word offensive to Mr Butcher; but I wish to bear testimony to the truth of Mr. Hilliard's statements, and to claim for my brother, who died a short time ago, an invention in every respect his own.

He invented the said saw when a studeut attending Dr. Lawrie's class in Glasgow. I have seen the first he made; the blade was the mainspring of a watch, which he made with a file, and the frame was part wood and part iron. With that saw he was allowed by Dr. Lawrie to operate upon the dead subject. The operation was almost noiseless, and the rapidity greater than with the Professor's saw. This was in Session 1831-32. Some improvements were afterwards made upon it. The saw that Dr. Lawrie was in the habit of exhibiting to his class was made by Mr. Brown, of Newcastle-on-Tyne, cutler to her Majesty, in 1833. That saw I sent, with my brother's compliments, to Dr. Lawrie, begging his acceptance of it as a prize for the best operator in his class, or to do what he chose with it. This discussion was over before I heard of it, otherwise I should have sought room for a word then, and would not have troubled you now.

Mr. Graham died about four years ago in Wisconsiu, America, whither he had gone, from the county of Durham, in pursuit of his health. His Surgical instruments, and the saw with its several blades among them, were sent home to his nephew, Dr. Thomas Graham, then a student, but now a Practitioner in Paisley, by whom it was made first known to me that another claimant appeared for the saw which he was in possession of, and which was made in 1833, about twenty years before Mr. Butcher constructed his. I know that in 1835 or 1836 my brother's saw was exhibited in Liverpool. I am, &c.

WILLIAM GRAHAM,
Minister of the Parish of Lochwinnoch.

Lochwinnoch Mause, Renfrewshire, December 22.

GARIBALDI'S CASE AND THE CRITICS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Oue portion of the Medical press is busy in fiuding fault at present with poor Dr. Semple; and also, in cynical fashion, blaming Mr. Partridge as to Garibaldi's case more than he deserves. It is very easy to be wise after an event: let us, however, remember, that in the latter case the "British Association" organ, that now blames what was done for Garibaldi as entirely blundering or too officious, was itself most demonstrative, a few Numbers before, for a secondary amputation of Garibaldi's foot, as the advice of the best Surgeon at St. Mary's. Let us remember that in the early popular excitement, a week after the affair of Aspromonte, tetanus, hectic fever, and pyæmia were distinctly meutioned in telegrams as only a few of the lesser evils which had made their appearauce; while the single fact, that Mr. Partridge had to procure splints, bandages, cradle for the limb, warm flaunel jackets for the poor geueral's rheumatism, &c., does not argue much for this overpowering ability of the one or two Surgeons at the "dungeon keep" of Varignano.

The cardinal error of Mr. Partridge was, of course, to have given his first opinion, that most probably the bullet, having hit the mass of bone in the lower end of the tibia, and, having fractured that bone, then glanced off; but a writer in the *Daily News*, at the wish of Garibaldi, has shown, that at Mr. Partridge's first visit he was not allowed to exami e the wound at all, and he could do little more than assent to this view, which was the one most strongly held by the Italian Surgeons then in attendance—Surgeons now so curiously looked upon as infallible by the "Dublin Medical Press" and the "British." No doubt M. Palaschiano then (as an outrider) ventured an opposite opinion; but even this did not please the critics; and the *Times* held stoutly for Partridge, and the Association critics followed the *Times*, and Palaschiano was deemed a political alarmist, and also all who kept in view, from the beginning, that the bullet was still iu the limb, and kept up the excitement.

All this occurred when London is usually empty—in September aud October. The curious treatment of poor Count Cavour by seven bleedings, was fresh in the public mind; and the agitation reached its height when twelve leeches were put on Garibaldi, and the telegram mentioned venesection, as proposed, to stop the tetanic symptoms! It is very easy to be wise after an event, but what were the Medical friends of Garibaldi to think, with all these alarms, and the public pouring in their subscriptions? Surely, not to run into perdition by a secondary amputation. (There is a precisely and curiously similar case in Guthrie's book, with amputation high up the thigh.)

Finally, as to M. Nélaton: this gentleman appears in the case in November, six weeks after the earlier visit of Mr. Partridge,—at a time when the very general opinion had changed to a belief that there was a bullet. Next, as to the porcelain probe and the electric probe: the best accounts relate that the porcelain probe failed to show any leaden mark whatever, while the electric probe was better, but which was contrived and sent by Mr. Partridge! M. Nélaton recommended also tents to dilate the wound of spongy gentiau root: they were never tried; and Zanetti, who extracted the bullet, was in reality acting every day by telegraph iu concert with Mr. Partridge.

It was three letters in the *Daily News* which directed the committee what to do from the commencement, and objected to amputation, and counselled temporising measures, and held that the bullet was in the ankle. There was no distrust of the better Italian Surgeous, nor is Mr. Partridge any "champion," as saith the *Dublin Press*, but very notably much the opposite. These letters had no *penchant* for Mr. Partridge; but still their writer does not wish Mr. Partridge and all concerned to be abused by the sourish Dulcamara of the *Dublin Press* and his too homologous friend of the *British Medical*. These letters recommended Mr. Erichsen, then in Italy, and did the best to guide the public, who one week gravely demanded one Surgeon from each London Hospital to be sent. Every thing was done very well and for the best; and if Mr. Partridge erred at all, it was in yielding to the so-called better Italian Surgeons.

December 21. I am, &c. HARPOCRATES.

COMMUNICATIONS have been received from—

Dr. QUINLAN; L., M.D.; Dr. USSHER; Mr. BLENKINS; Mr. CLEMEN; Dr. WILSON (Florence); L.A.B.; AN OLD SURGEON; Mr. HEMLOCK; Mr. SPENCER WATSON; Mr. CHRISTOPHER HEATH; Mr. FREDERICK MARSH; Mr. HULKE; Mr. LUDLOW, St. Bartholomew's; Mr. BURGE; SCALPEL; Dr. ROBINSON; Mr. RAND; Messrs. SMITH; ROYAL COLLEGE OF PHYSICIANS; ROYAL INSTITUTION.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 20, 1862.

BIRTHS.

Births of Boys, 973; Girls, 950; Total, 1923.
Average of 10 corresponding weeks, 1852-61, 1594·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	700	719	1419
Average of the ten years 1852-61	617·7	601·9	1219 6
Average corrected to increased population..	..	..	..
Deaths of people above 90	..	..	8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria	Whooping-Cough.	Typhus.	Diarrhœa.
West	463,388	2	11	8	2	4	5	4
North ..	618,210	15	17	22	8	11	16	3
Central ..	378,058	1	14	8	2	5	14	
East	571,158	9	12	17	3	8	23	2.
South ..	773,175	7	25	14	5	20	12	3
Total.. ..	2,803,989	34	79	69	20	47	70	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·977 in.
Mean temperature	42·1
Highest point of thermometer	52
Lowest point of thermometer	33·7
Mean dew-point temperature	37·8
General direction of wind	S.W,
Whole amount of rain in the week	0·22 in.

APPOINTMENTS FOR THE WEEK.

December 27. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m.; Charing-cross, 1 p.m.

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1¼ p.m.; Samaritan Hospital, 2½ p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.

30. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

31. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.

January 1. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; London, 1½ p.m.; Great Northern, 2 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; Royal Free Hospital, 1½ p.m.

2. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.
MEDICAL SOCIETY OF LONDON, 8 p.m. Meeting of Council.

ST. MARY'S HOSPITAL RADFORD LIBRARY MANCHESTER

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ERRATA.

Page 24, *for* "quantitative," *read* "qualitative."
Page 62, *for* "F. G. Erust," *read* "F. G. Ernst."
Page 63, *for* "Auzouz," *read* "Auzoux."
Page 63, *for* "Small Brothers," *read* "Smale Brothers."
Page 74, *for* "Bayer," *read* "Boyer."
Page 74, *for* "plessimetrime," *read* "plessimetrisme."
Page 131, *for* "complimentary," *read* "complementary."
Page 153, *for* "John Bubb, L.S.A.," *read* "John Bubb, M.R.C.S., L.S.A."
Page 153, *for* "H. S. Gull," *read* "H. S. Gale."
Page 184, *for* "a single epithet of," *read* "by a single epithet."
Page 281, *for* "log," *read* "coy."
Page 293, *for* "Méuilmentant," *read* "Ménilmontant."
Page 293, *for* "Tartuffe," *read* "Tartufe."
Page 294, *for* "Nephilas," *read* "ulphilas."
Page 312, *for* "Mr. Headland," *read* "Dr. Headland."
Page 312, *for* "Dr. Edwin Fox," *read* "Dr. Wilson Fox."
Page 386, *for* "opium," *read* "morphia."
Page 448, *for* "widely swerving," *read* "widely severing."
Page 419, *for* "the posterior cornu of the third lobe," *read* "the posterior cornu, or the third lobe."
Page 419, *for* "last," *read* "cast"
Page 419, *insert reference to Isidore G. St. Hilaire,* "Tom. ii, 1, p 248."
Page 509, *for* "1856," *read* "1836."
Page [illegible], *for* "The Cause of Insanity," *read* "A Cause of Insanity."

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